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Attached with this paper is Blundell's 7th Lecture held at Guy's Hospital on gravid uterus, and on the diseases of women and children. Lancet, I. #276:321 -26, 1828-9. (RB7344) Garrison-Morton 2017.

THE LANCET.

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OBSERVATIONS ON TRANSFUSION OF BLOOD.

By Dr. Blundell.

*With a Description of his Gravitator.**

States of the body really requiring the infusion of blood into the veins are probably rare; yet we sometimes meet with cases in which the patient must die unless such operation can be performed; and still more frequently with cases which seem to require a supply of blood, in order to prevent the ill health which usually arises from large losses of the vital fluid, even when they do not prove fatal.

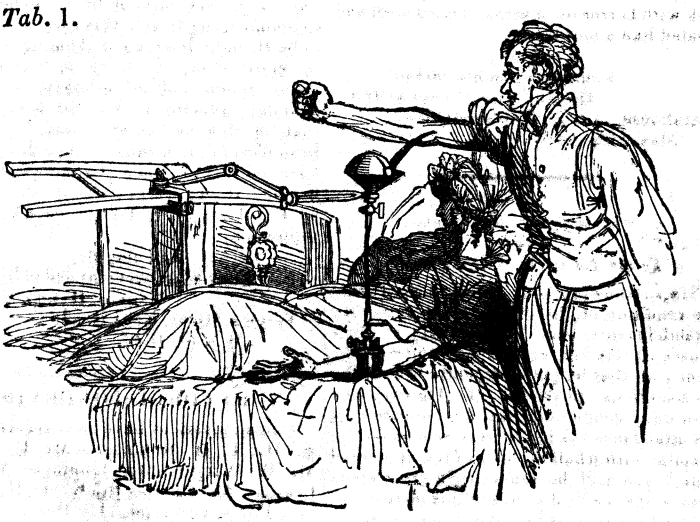
In the present state of our knowledge respecting the operation, although it has not been clearly shown to have proved fatal in any one instance, yet not to mention possible, though unknown risks, inflammation of the arm has certainly been produced by it on one or two occasions; and therefore it seems right, as the operation now stands, to confine transfusion to the first class of cases only, namely, those in which there seems to be no hope for the patient, unless blood can be thrown into the veins.

The object of the Gravitator is, to give help in this last extremity, by transmitting the blood in a regulated stream from one individual to another, with as little exposure as may be to air, cold, and inanimate surface; ordinary venesection being the only operation performed on the person who emits the blood; and the insertion of a small tube into the vein usually laid open in bleeding, being all the operation which it is necessary to execute on the person who receives it.

The following plate represents the whole apparatus connected for use and in action:—

* The instrument is manufactured by Messrs. Maw, 55, Aldermanbury.

Tab. 1.



When the apparatus has been put together for use, the following points of management require the attention of the operator:—

First, an ounce or more of clean water (better if milk warm) is to be poured into the coniform blood receiver, the stop-cock being at the same time shut. Secondly, the vein of the patient who is to receive blood is to be distinctly exposed to the extent of half an inch, or more, the integuments and cellular web being laid open by the scalpel; an operation which may be performed by those who are dexterous at a single stroke of the knife. Thirdly, the venous tubule, see Table 2, Fig. *a*, being plugged into the angular tube which terminates the flexible canula, the operator ought to arrange the apparatus so as to place the tube immediately over the vein of the patient, and then laying hold of the tubes moveably suspended above the vein, he ought to bear down and adjust the flexible arm support, Table 2, Fig. *c*, until the venous tubule is brought into *light* contact with the vein, so that the horizontal extremity of the tube may lie externally along the course of the vessel to the extent of half an inch. This tubule, it should be observed, is of very pure silver, and flexible, and may, therefore, if necessary, be altered a little in its curves, so as to adapt it with nicety to any accidental variation in the direction of the vessel which receives it; but the less tampering with the silver the better. Of course the point of the tubule ought to be directed towards the heart, and its whole length ought to be adjusted to the direction of the vein with great exactness, so that the extremity of the tube may lie within the cavity of the vessel, without straining or otherwise injuring it; indeed, throughout the whole of the operation, the vein must be spared as much as possible.

These preliminary measures taken, the operator, moving the arm a little aside, ought next to lay open the vein with a lancet, to such an extent (say the tenth of an inch) as may ensure the easy entrance of the pipe; and if any blood issues, a small probe may be slid transversely underneath the vein, between the venous orifice and the inferior extremity of the cutaneous wound, so as to enable the operator to close the vein at pleasure, by gently pressing it down upon the probe.

The arm being prepared in this manner, the bracelet, or spring clasp, Table 2, Fig. *i*, (its cup resting rather behind the middle of the screw which supports it, say at point *z*, Table 2,) ought now to be put upon the arm of the patient, to which it will cling, and then the ball and cap, Table 2, Fig. *h*, being adjusted to the cup, but rather lightly, that they may be easily separated again, the operator, taking a firm hold, right and left, of the two springs which form the clasp of the bracelet, he opens them a little, when he may easily advance or retract the clasp along the arm, so as to bring the silver tubule (disarranged by these previous operations) to its just bearings and light contact with the vein externally as before. At this time the nuts of the flexible arm-support, Table 2, Fig. *d*, ought, if necessary, to be screwed tight, so as to give stability to the whole apparatus, and preserve the adjustment.

This accomplished, the operator ought now to open the ball and socket-joint by separating the cap and cup, and laying hold of the apparatus at this part, he should, *with all gentleness*, pass and repass the silver tubule (moveable because suspended by the flexible canula) into the cavity of the vein, so as to satisfy himself that it really does enter the vessel, and that it is not unawares inserted between the vein and its sheath of cellular web, an accident which may easily occur, not without a risk of frustrating the whole operation. After this, again withdrawing the tubule from the cavity of the vein, he may open the stop-cock, when the water in the coniform receiver above will gravitate through the tubes, and being suffered to run for two or three seconds, will completely expel the whole of the air; after which the stop-cock being again closed, the tubes will remain full, (if this part of the operation has been well performed,) a small quantity only of water lodging in the point of the receiver, part of which may be removed, if necessary, by means of a piece of *clean* sponge, a convenience which should always be at hand.

The operation being brought to this point, the venous tubule may now be easily deposited in the cavity of the vessel; when, by turning the screw, Table 2, Fig. *e*, the small cup may be made to pass backward and forward, in the direction of the venous orifice, until it is brought exactly under the cap and ball, to which it is to be afterwards screwed down, care being taken not to derange the vein or venous tubule, neither of which are, on any account, to be disturbed.

The tubule being now retained in the vein at the proper degree of obliquity, the cap may be screwed home upon the cup; and if it be thought necessary to advance or withdraw the tubule a little, as it lies within the cavity of the vessel, this of course may be easily effected by the action of the screw support, Table 2, Fig. *e*, as before.

The hood, Table 2, Fig. *k*, being now mounted upon the receiver, Tab. 2, Fig. *f*, a vein should be opened in the arm of the person who emits the blood, and this arm ought then to be held over the receiver in the usual manner, so that the blood may

flow into it, when the cock may be turned, and the transfusion will immediately begin; the blood flowing along the tube directly from the arm of the person who emits the blood, to the arm of the person who receives it. In this mode of operating, the small quantity of water which fills the tubes will, as a matter of course, enter the veins along with the blood; but though this is certainly undesirable, it does not appear to cause any obvious hurt.

As the operation proceeds, if the blood flow freely, it ought to be collected in the receiver; if it dribble down the arm, it is better not to make use of it. If the pipes become clogged in consequence of the inspissation of the blood, the operation will be arrested: the stoppage of the operation, when this accident occurs, is an excellence of the instrument, not a defect. To clear the apparatus, a syringe is provided, fitting the opening of the stop-cock, by means of which warm water may be forced through the tubes before the blood hardens in them.

In the progress of the operation watch the countenance; if the features are slightly convulsed, the flow of blood should be checked: and if the attack is severe, the operation must be suspended altogether. On the other hand, so long as no spasmodic twitchings of the features, or other alarming symptoms are observed, we may then proceed without fear.

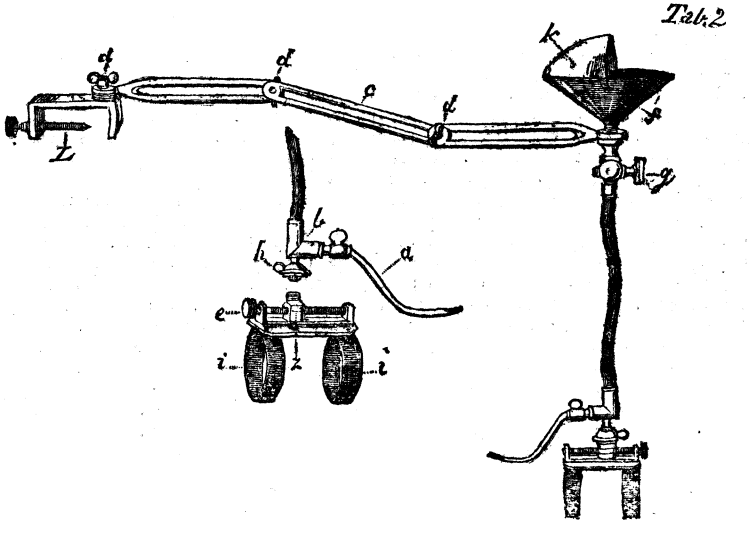
If there be occasion to suspend the operation, all the blood which lies in the apparatus, during the interruption, ought to be cleared away, and warm water being passed through the tubes, the transfusion ought to be commenced afresh.

Throughout the whole process, only a small quantity of blood should be allowed to collect in the receiver at once, nor should its level ever rise above the line drawn around its interior. This line indicates the measure of two fluid ounces.

If the blood collect in the receiver too fast, this may be easily remedied, either by placing a finger below the orifice in the arm of the person who supplies it, so as to check the stream; or else, by requesting him to withdraw his arm, so that the blood may no longer reach the receiver.

In cases requiring transfusion, the heart and vascular system being feeble, there is reason to believe that their action might be arrested by too rapid an influx, and that sudden death might, in that manner, be produced. It is necessary to guard against this accident with care; and it is to be recollected, that by means of the flexible arm-support, the receiver may be placed at any level above the arm of the patient, and that the rapidity of the influx may thereby be increased or retarded accordingly. It should too be observed, the force of the stream may be diminished at pleasure, by means of a partial closure of the stop-cock: and although this tends to produce a slight suction, yet it may, notwithstanding, be the best mode of regulating the impetus of the stream. The force of the stream may also be ascertained, by pouring water into the receiver before the operation is begun, and the elevation of the receiver, or the turn of the cock, may be adjusted accordingly before the operation begins.

The following plate represents the several parts of the apparatus referred to as Table 2:—



Although the description of the instrument must appear complex, its use is simple; in truth, when the transfusion is once begun, the operator has little to do; his principal cares are—first, to see that the cup never empties itself entirely, otherwise air might be carried down along with the blood. Secondly, to make sure that blood which issues by dribbling, from the arm of the person who supplies it, may not be admitted into the receiver, as its fitness for use is doubtful. Thirdly, to watch the accumulation of blood in the receiver, and to prevent its rise above the prescribed level; and, lastly, to observe with attention the countenance of the patient, and to guard, as before stated, against an overcharge of the heart. *This latter cause is of great importance.*

C is the flexible arm, which acts as a support to the rest of the apparatus (excepting the spring clasp, which embraces the arm of the patient): this part of the apparatus is furnished, at one end, with a strong clamp, or vice, Fig. *L*, for the purpose of attaching it to a chair, (a piece of furniture always at hand, and well adapted for the purpose,) and this is placed on the bed beyond the patient, in the manner represented, Table 1. At the other extremity of this flexible arm is a ring, into which is screwed the stop-cock, Fig. *g*, which consists of a flexible canula, having at one end a stop-cock, and at the other an angular brass tube, Fig. *b*, furnished with a ball and loose cap; which ball and cap serve to connect it with the part. Below is the spring clasp, or armlet, intended to cling to the arm of the patient. Upon this clasp is mounted a screw and cup, upon which the cap of the ball is screwed, so as to complete the ball and socket joint, a kind of juncture, giving the universal motion, but capable of being rendered immoveable by firmly screwing home the cap, and enabling the operator to fix the angular end of the canula at any necessary degree of inclination or obliquity. There are two venous tubules, the curvature of one having a bias in the opposite direction to that of the other, so as to suit either arm. These tubules being of pure and very soft silver, are capable of being accurately adapted to the course of the vessel into which they are to be inserted. The coniform blood-receiver *f*, and its hood or partial covering *k*, are contrived to intercept the stream from the supplying vein, and preclude its passing over the receiver; in the apex of the receiver is a triangular partition, which has the effect of preventing that rotary motion and hollow surface sometimes assumed by fluids when passing through a funnel-shaped aperture. The receiver having its hood fitted upon its rim, is then firmly plugged into the opening made to receive it on the top of the stop-cock. A syringe, scalpel, lancet, and silver probe are connected with the apparatus, the uses of which are described above.

FOREIGN DEPARTMENT.

TRANSFUSION AND INFUSION.

The following extract, from a recently published work of Dr. Dieffenbach, of Berlin (of which already some mention has been made in The Lancet) contains an abrégé of the experiments on the above subject, which have been made in France, during the last twenty-five years.

Nysten's experiments on the injection of different kinds of air into the vessels are very interesting. Large quantities of atmospheric air invariably caused death, under extreme distention of the right ventricle; if, however, by the division of the subclavian vein an exit was given to the air, the experiments hardly ever had a fatal result. He never found any air in the arterial vessels, provided the injection had been made into a vein. A small quantity of atmospheric air, injected into the carotid, had no effect whatever; a large quantity caused general paralysis, but seemed to have no direct influence on respiration and circulation, which were, for a considerable time, regularly performed. Oxygen injected in large quantity, into the veins, proved fatal; a small portion of it had no effect. The injection of nitrogen, even in small quantities, and after the division of the subclavian vein, was invariably followed by death; the arterial blood in such cases was found to be of a brown colour. Nitrous oxyd was rapidly absorbed by the blood, and large quantities of it were injected without any ill effect. Carbonic acid was also absorbed by the blood, and small portions of it were easily borne; in greater quantities, however, it appeared to cause pain over the whole body, and eventually death. Carburetted hydrogen, injected into the carotids, caused almost immediate death; the injection of small doses of hydrogen was also followed by death, without any struggle; while the injection of phosphoretted, or sulphuretted hydrogen, caused death, under violent convulsions; the latter gas was quickly absorbed by the blood. Nitrous gas, ammonia, and chlorine appeared to act only by their chemical properties. Nysten concluded, from numerous experiments, that part of the injected gas is thrown off by the lungs during expiration, the greater portion of it being retained in the vascular system. Dogs, which were made to respire nitrogen,

were kept alive for fifteen minutes by the injection of oxygen gas into the veins.

Magendie is of opinion, that transfusion from one animal to another of the same species is attended with no danger, even if the experiment be carried to a very great extent. Injection into the veins, according to him, is the best means of introducing remedies directly into the system, and of examining their specific action; morphine, opium, croton oil, and prussic acid had the same effects when injected as when swallowed; the injection of oil was fatal, by the mechanical obstruction of the ramifications of the pulmonary artery; the same effect was produced by the injection of any mucilaginous fluid. The result of the experiment was modified in a most remarkable manner, if the injection was made into a branch of the vena portæ. In one case, Magendie injected an ounce of oil into a mesenteric vein of a dog, which, immediately after the operation, fell into a state of immobility, with great dyspnœa and involuntary excretion of the fæces and urine; this condition having continued for a few days, the animal spontaneously recovered. A week after the first experiment, the operation being repeated, was followed by the same symptoms, which, however, after a few hours ended fatally. The liver was found uncommonly large, of bright yellowish colour, and exhibited some traces of the oil. The injection of narcotic substances into the veins of rabid animals appeared to have no effect whatever. M. Magendie was led to try the result of an injection of tepid water, after free bleeding; a momentary tranquillity ensued after the operation, (which was performed both on dogs and on men,) but the convulsions, within a short time, returned, with ultimately fatal results. In a case of a wound in the heart, where the introduction of air into the latter organ produced syncope and imminent danger of suffocation, M. Magendie succeeded in almost immediately allaying the most violent symptoms, by the insertion of a silver tube into the jugular vein and pumping out the air.

Percy and Laurent assert, that they have cured tetanus by injecting a strong solution of the extract, or a saturated decoction of stramonium.

The recent experiments of M. Gaspard are very interesting, and but little known. Injection of quicksilver into the veins was followed by a fatal effect, but not immediately nor directly; death ensued under the symptoms of violent pneumonia; if introduced into an artery it caused inflammation and suppuration of the parts, to which it was distributed. Mercurial ointment introduced into the vascular system caused extreme weakness and a state of asphyxia, which, after a transitory re-action, ended in death. The injection of calomel was speedily followed by vomiting and subsequent pneumonia; the same effect was produced by the injection of a grain of sublimate; acetate of lead had no sudden effect, but caused chronic enteritis. The injection of a small quantity of purulent matter, mixed with water, produced great prostration of strength, vomiting, and, after a few hours, a bloody diarrhœa, which symptoms ultimately ended in recovery. Larger quantities of pus introduced into the circulation caused death within a very short time; putrid serum caused dysphagia, bloody dejections, vomiting, and death an hour after the operation. The lungs were found of a dark-red colour, inflamed, and their vessels obstructed with viscous matter; the villous coat of the intestinal canal was inflamed, and the internal organs extensively ecchymosed. No difference was observed, as to effects of the experiments, between carnivorous and herbivorous animals.

The saturated decoction of oak bark caused violent dyspnœa, palpitation, and death; if the decoction was weak, it produced hardly any effect, and M. Gaspard is of opinion, that the diluted solution of astringents might best be administered in this manner. The injection of diluted sulphuric acid, immediately after that of putrid sanies, had no effect in obviating the fatal results of the latter; nor was there any better effect observed from the injection of the decoction of bark, the solution of chlorine, soda-water, or vinegar. The injection of human seminal fluid caused dysphagia, dyspnœa, vomiting, salivation, involuntary excretion of fæces and urine, and insensibility; in all the experiments with it, however, the animals ultimately recovered. Nearly the same effects were observed from the injection of the bile of herbivorous animals; that of carnivorous animals was generally followed by death. The injection of serum caused nearly the same symptoms as that of semen. A strong decoction of the ergot of rye produced violent pain and immobility of the hind legs, dyspnœa, and, if administered in large quantities, death. The injection of most of the above-mentioned substances into small arteries was hardly ever fatal, and terminated in inflammation and suppuration of the cellular tissue. In one case of hydrophobia, the infusion of tepid water into the veins was tried, but without any effect.

From the experiments of MM. Dumas and Prevost, it appears, that in animals which were almost killed by depletion, the injection of warm water, or serum, had not the slightest effect; if, however, blood of an animal of the same species was transfused, in almost every case speedy and com-

plete recovery ensued; if the transfused blood was taken from an animal of a different species, a transient reaction only took place, and death followed before the sixth day; in the latter experiments, respiration did not appear to be disturbed; the pulse was very quick, and the temperature low. The blood of sheep injected into the veins of ducks produced very violent convulsions and death shortly after the experiment.

In a case of violent hysterical trismus, a solution of about seven grains of opium was injected into the basilic vein, by M. Coindet, of Geneva; the patient felt as if a current of fire was running from the arm through the chest and head, and thence to the whole surface of the body, and the spasm, which had resisted several remedies, subsided almost immediately.

The injection of urea into the femoral vein of a dog produced no other effects than increased secretion of urine and great voracity; two ounces being injected into the veins of a dog caused great restlessness and death within ten minutes; the injection of a smaller quantity was found to be followed by emaciation, which, on the fourteenth day, proved fatal. On examination, the lungs were found hepatised.

The injection of strong alcohol was immediately followed by death; diluted spirit produced a state of intoxication; the extract of nux vomica produced tetanus and death within a very short time.

ON THE

IMMATERIALITY OF THE MIND,

And its Identity with the Vital Principle; and on the Constitution of the Soul: in reply to Mr. DERMOTT.

By JOHN THOMAS, *Esq., Demonstrator of Anatomy.*

THE constancy with which you advocate free discussion, and the desire you often express of eliciting truth, persuade me that apology for again troubling you will be needless, and induce a belief that you will provide, without solicitation, a corner in your journal for the following remarks.

In your Number for May 23d, is an excellent paper "On the Functions of the Brain," by Mr. Dermott, a paper containing observations evidently the result of much thought, and which certainly shows that he possesses a metaphysical mind, which by all, I believe, is considered as of the highest order of intellect. I confess I hesitate to enter the lists of controversy with one of such mental capacity, and endowed with so much acute perception. I hesitate, I say, when I consider this; but, on the other hand, when I reflect that it is a duty imperative on every one to be vigilant in the cause of truth, and where he *thinks* he perceives the encroachment of error to dispute its progress, and make a stand against it, my hesitation yields to a sterner feeling; and though the risk of defeat and contumely glare on me, I dare the contest, persuaded that my discomfiture will be the result of the victory of truth. I venture, therefore, with these views, to dissent from the opinions of Mr. Dermott, and to state, that after the most deliberate consideration, I believe them to be quite at variance with *revealed* truth. Without, then, pretending to be wise above what is written, I shall, in this paper, *first*, present your readers with what appears to me to be the interpretation of Mr. Dermott's theory; *secondly*, give us concise a history of my own, as is compatible with distinctness; *then* raise objections to it, which I will endeavour to answer as they arise; and, *lastly*, conclude by some *general* observations, more *particular* ones being precluded by what has gone before.

Mr. Dermott's theory then appears to me to resolve itself into the following particulars:—

I. That the *brain* is the sole originative cause of thought, and, therefore, "it is one and the same thing as the mind," which, for this reason, he calls "a material principle."

II. That this "material principle" is common to all animals, and that the only difference between the brutes and man as an animal is, that in him this principle is more perfectly developed than in them.

III. That the *essential* difference between man and brutes is, that the former has superadded, or "attached to his existence," a principle which, in common parlance, is termed the soul; which is not conscious during this life, but is cradled up, as it were, or preserved in embryo in some place, (in the pituitary gland, for this is well defended from rude aggression?!) but "not demonstrable."

IV. That this material principle is the "ostensible representative" of this undeveloped, unconscious, "dormant," and insensible soul during man's terrestrial existence. That though *not free* to act, nor sensible to moral or physical impressions in this life, *it is responsible* for the reprehensible acts of the material principle or brain; for which, though it could not control them, it receives retribution when it awakes from its torpor, or comatose condition, in the world of dread reality; and "because it is the continuation of the same individual's existence."

This, then, appears to me to be the construction which, without any straining, may legitimately be imposed on Mr. Dermott's "theory." And here permit me to observe once for all, that if Mr. Dermott is of opinion I have misinterpreted his sentiments, I hope he will attribute the error, not to wilful misrepresentation, as that I utterly disclaim, but rather to the hebetude or obliquity of my understanding. I shall proceed now to give as concise a history of my own theory as is compatible with distinctness; and in doing so I may premise, that any absurdities it may be thought to involve, are attributable solely to me, as I have consulted neither books nor persons on the subject, it being purely the result of my own speculations, upon what I have thought substantial grounds.

I. *First*, then, I maintain that the vital principle operates immediately upon the brain, and intermediately upon all other parts of the human system; that the brain is the machine, as it were, by which the operations of the mind are made manifest; and that this mind is identical with the vital principle.

II. *Second*, I cannot admit the ubiquity of the vital principle, but I do the universality of its influence; and I believe that the principle of life itself resides in the brain, and no where else.

III. *Third*, I grant the degree of perfection of mental *manifestation* depends upon cerebral development, in the same way that perfect action in a steam engine does on the excellence of its works; but I cannot admit that the brain is the mind, any more than I can that the engine, whose function is motion, is the fire or steam by which it is caused to act.

IV. *Fourth*, I deny the identity of the vital principle in man and the inferior animals, and, therefore, I propose to distinguish that which actuates the former by the term *human principle*, and that by which the latter are influenced as the *brute principle*; and this, I believe, is perishable, but the other is immortal.

V. *Fifth*, but this immortal, human principle cannot exist separate from deity, unclothed by, or independent of, matter; it is not the soul, however, but is a constituent of what will hereafter form an incorrupt and immortal soul.

VI. *Sixth*, I cannot agree with Mr. Dermott, that what is commonly called the soul is "dormant during life," or that it has any "representative." I believe that the vital principle, which is to be the quickening principle of a new and glorious body (σῶμα) after death, is of itself active and energetic during its mundane existence; that it conceives, reflects, and acts, and for its conceptions, reflections, and actions, is alone responsible, and will be rewarded according to the deeds done in the (σῶμα ψυχικον) animal or mortal body.

VII. *Seventh*, I believe the soul (by the soul here, I mean that which shall exist after death) which is scripturally denominated (σῶμα πνευματικον) a spiritual *body*, is substantial, i.e. an immortal creature, endowed with the properties of matter, inimitably beautiful, and the perfection of the Creator's works. I use the word spiritual (πνευματικον,) as I believe it is generally used by the sacred writers when speaking of the body with which we shall rise again, in opposition to animal and carnal (ψυχικον και σαρκικον).

VIII. *Eighth*, I cannot believe with Mr. Dermott, that when the brain dies, the "individual's existence is continued" by the "dormant soul:" it is not scriptural; I think it is unphilosophical and untrue. The soul, or, as I call it, the immortal human principle, I have said is coeval with the body, and always active; I believe, therefore, that at death it drops, as it were, the husk or shell by which it is inclosed, and becomes reinvested in a new body, (σῶμα πνευματικον,) subject to no deterioration, and that its *own* existence is continued, freed from connexion with the (σῶμα ψυχικον) animal or mortal body, which is impure, and has stamped upon it, like all things terrene, decay and dissolution; and,

IX. I believe that this immortal body (σῶμα πνευματικον,) similar in appearance, and, in fact, in every thing sufficient for identity with the mortal body (σῶμα ψυχικον,) will hold the same relation to surrounding objects in the world to come, as Adam, our great progenitor did at his creation and before the Fall; hence I infer that heaven is a place, and not a state of being.

These, then, comprise the substance of my opinions, which are diametrically opposite to those of Mr. Dermott. I shall proceed now to raise as many objections as I possibly can; they will be founded on established opinions, Mr. Dermott's theory, and the peculiarity of my own views, and I shall endeavour, as they arise, to answer them; but this I expect not to do to the satisfaction of every one, I shall content myself, therefore, with the attempt, and leave your readers to their own decisions.

Objection I.—How can the mind be identical with the vital principle, seeing that the principle of life is said, by high authority, to pervade all parts of the system; if the identity be admitted, then mind must be universal, and is it not absurd to place mind in the stomach, liver, lungs, &c.?

Answer.—The assertion that the doctrine of the omnipresence of the vital principle is believed by high authority, adds nothing to its validity, from the fact, that authorities

the most formidable differ among themselves. For my own part, as I have before stated, I cannot admit the ubiquity of this principle; if it were present in every part of the body, why need there be such a plentiful distribution of nerves to all the regions, and these nerves, too, ultimately referrible to the brain and spinal marrow? These nerves are known to preside over voluntary and involuntary motion and sensation; but they themselves do not determine if motion or sensation shall take place in certain parts; if they did, they might not please to be consentaneous in their operations, whence much confusion might arise. But they convey to the mind intelligence of external circumstances, upon the knowledge of which it frames its resolutions, which it causes to be enforced by a class of nerves subservient to its purposes. Hence we perceive that the power which presides over the animal, is situated at the confluence of the nerves, is acted upon, and acts. I say, then, it resides only in the brain; and that it does not in the spinal marrow, is proved by the fact, that in fracture of the vertebræ, with depression, all voluntary motion and sensation cease below the injured part;—that it does not reside in the solids, is proved by the fact, that if the nerves distributed to a part be insulated, the same thing results; but it is still alive; the part lives, not because the principle is innate, but because its influence upon the circulatory system continues, which causes the vessels still to convey the pabulum of life to it for its support: stop the flow of blood to the part, and the consequence is its death. The residence of the vital principle being established in the brain, which is its palace, where it sways the sceptre of its sovereign will, I come now to consider the question of its identity with the mind. I think I have shown that the vital principle does not exist in every part of the body; if, therefore, I prove the identity of the mind with it, I shall have completely answered the question, as far as its absurdity is concerned; but in order to save time, I will raise the next objection, and endeavour to answer both.

Obj. II.—Is not all animal matter influenced by, and subject to the same laws; and do not like effects proceed from like causes; and if so, can there be a difference between the vital principle of brutes, and that of man, seeing that they, in their operation on matter, produce similar results?

Answer.—There can be a difference, and the same effects may be derived from causes the same in some respects, but dissimilar in others. For example, there may be two watches, one of which indicates the hour and minutes, the other, in addition to this, points out the seconds; now the power which moves the hands in both is similar, since they produce the same results, namely, those of telling the hours and minutes; but they differ in this; that the latter watch has a power superior to the former, and can, therefore, produce a different effect. So, I conceive, it is with the brute principle, and the human principle; for the power of one is superior to the other, and this difference, I believe, depends upon the *two dissimilar sources* from which they were produced, and not, as is by some supposed, upon the difference of organisation alone. If we peruse attentively the history of the animal creation, as recorded by Moses, we shall there find a very circumstantial account, which points out so clearly, "that every one who runs may read" the origin and cause of difference between the two principles. "And God said, Let the *earth* bring forth the living creature after his kind;" "and God made" (or spoke into existence) "the beast of the earth;" "and God saw that it was good." Moses then, in chap. i. ver. 26, relates the creation of the first human pair; but not satisfied with a general account, he details more particularly the manner in which man was created, and how he became a living soul. "And the Lord God formed man of the dust of the ground, (Gen. chap. ii. ver. 7,) and breathed into his nostrils the breath of life (*το πνευμα του βιου*); and man became a living soul (*ἐγένετο εἰς ψυχὴν ζῶσαν*)." Now the creation of the inferior animals is very analogous to that of the vegetable kingdom; vegetable life and brute life were both conferred *by the command of God*; "and God said, Let the earth bring forth grass, &c.;" but, in the creation of man, the Deity condescended "to breathe into his nostrils" a part of his own pure essence; he chose to animate man's body, which he had formed from the dust of the ground—"*divinæ particulâ curæ*;" and since he had made man "*in his own image*," he determined to confer on him such a principle of life as should be not only sufficient for animal existence, but which should partake of his own divine nature, and thus, at once, supply him with vitality, mind, and immortality. Is it then, I ask, irrational to suppose the mind identical with the vital principle; and that the human principle and the brute principle are not the same, seeing that they are derived from two such different sources—*the one* from the *earth* in common with vegetation, and *the other* from *God* himself? He might indeed have commanded man to exist, when he said, "Let the earth bring forth the living creature;" he might, too, have bestowed upon him immortality; but no, he willed a higher relationship than that for man—he inspired into him a particle of his own nature, and thus formed him the pure offspring of himself.

Obj. III.—Do we not say "soul and body;" how then can the soul be a constituent of the soul which exists hereafter; is it not a pure elemental spirit—an entity which can exist independent of matter, though, indeed, connected with it during life; if so, is it not absurd to make it a constituent of a new creature?

Answer.—The word Σῶμα, I find, is used by the writers of the New Testament, both when they speak of this mortal body, and of that which man shall possess after death. It is a word deduced "from the Heb. שׂוּם to place, as being the *place* of the soul." Now if the sacred writers use the word σῶμα indiscriminately, when speaking of the animal and spiritual bodies, may we not infer that the σῶμα in both instances is for the purpose of enclosing or containing the responsible and immortal principle of man? It is not my intention to discuss the nature of spirit, or to enter into inquiries "of entity and quiddity," or such like metaphysical speculations; my object is to show that the spirit of man, the human principle, or by whatever name it may be called, at death merely quits a corruptible for an incorruptible body (σῶμα). Death I consider as nothing more than a purifying process; one by which the immortal constituent of man is freed from a tainted incumbrance. Paul's illustration of the resurrection, 1 Cor. xv., I think, is simple, beautiful, and very much to the purpose; some, he says, will inquire "*ποίῳ δὲ σώματι ἔρχονται*;" with what *body* will they (*οἱ νεκροὶ*, the dead) come? And adducing the example of a grain of wheat, he replies, "*οὐ τὸ σῶμα τὸ γενησομενον πειρεις*," thou dost not sow that *body* which shall be hereafter, i. e. the mortal body is not that body which will form the place of the immortal principle, any more than the exterior of a grain of wheat is the plant which grows from it, and afterwards produces similar grains. No; man's body first dies, and then the vital principle which once animated it, forsakes it for ever. It appears to me absurd to suppose that the mortal body ever rises again; one might be pleasant here in favour of dissection, but all that could be said may be easily imagined by the most common understandings, therefore we will let it pass. At death, then, the spirit leaves the animal or mortal body, (*το σῶμα ψυχικον*,) and becomes invested in a new, incorruptible, and spiritual body (*το σῶμα πνευματικον*); this, therefore, is what I understand by the immortal soul, or, in Mr. Dermott's words, "the continuance of the individual's existence." Was not Adam before his fall thus constituted, and if that unfortunate occurrence had not taken place, would he not have been immortal? This is undeniable. What was Adam but a particle of the Deity embodied in a pure and undefiled receptacle; and what is man now, but the same divine principle contained in an impure place; and what is the immortal soul, but the particle of Deity re-embodied in purity? I believe, then, that an immortal soul consists of the human principle, and a body which is incorruptible, (*το σῶμα πνευματικον*,) that it will inhabit a place, and be in its relation to external objects in circumstances similar to Adam, when he reigned sole lord over his domains in Eden. With these views, then, is it absurd to make the human principle, or, as it is in common discourse called, "the soul," a constituent of a new creature? I think not; but we shall see, "when all things have passed away and become new."

Mr. Dermott's opinions, I must confess, tend very much to materialism; by this I mean that they encourage the belief that when matter ceases to live, man's spiritual part dies also. It is true he provides a "dormant" being which is to spring into life at death, loaded with the offences and crimes of thinking matter, for which, though it did not commit them, it suffers, and for no other reason than because "it is the continuance of the same individual's existence." Let me not, however, be misunderstood; I do not say that Mr. Dermott attached this anomalous principle to matter to satisfy the fears of some, or to allay the conscientious qualms of others, or that he did it to ward off the imputations likely to be "attached" to him, were he to form a theory of mind which divested man of his immortality; I do not say this; but still, if his theory be taken simply upon its own merits, I think it authorises the view I have taken of it. As for the mind being the brain, I cannot admit that; shall we say that the rotation of certain wheels in a machine, is the machine itself? Shall we then say that the actions of the heart, lungs, and brain, are these organs themselves? No; but this I think we may affirm, that the brain is an organ composed of various parts, each endowed with a certain faculty, and is acted upon by a principle which causes it to produce various manifestations. The perfection of these results, I agree with him, depends upon the development of the brain; in the same way that the more perfect a piece of mechanism is, the more complete will be its functions, at the same time it is not independent of the moving power, as I have shown above.

Thus, Mr. Editor, I have endeavoured to discuss with candour, the subject to which Mr. Dermott's opinions have given rise; whether I have succeeded in establishing my own, and overthrowing his, or have failed in both, I leave with your readers to decide.

1, Dean Street, Canterbury Square,
Borough, June 4, 1829.

AMERICAN OPINIONS AND PRACTICE.

[*American Journal, February*, 1829.]

FOLLICULAR INFLAMMATION OF THE INTESTINAL CANAL.

Cholera infantum is a disease entirely American; and, in Philadelphia, the number of deaths under two years of age from this complaint is, on an average, two hundred annually. Great, however, as is the store of information which must accumulate, connected with it, there is not one dissection a year reported to the medical public. The affection prevails in the summer among children of two years and under, and the phenomena resolve themselves into a strongly marked change of the alvine evacuations, which cease to be natural and well-elaborated fæces; the natural stools are retained, and such as are passed are derived principally from the chylopoietic viscera themselves. They occur from three to twenty times in the twenty-four hours; these are want of appetite, irritability of the stomach, and vomiting; fretfulness, emaciation, and languor, as the disease advances; delirium, coma, or hydrocephalus, in its last stages. When fatal, it runs its course from a fortnight to six weeks. It is evidently in the mucous coat of the alimentary canal that the true morbid characters are found, the peritoneum being, generally, entirely sound. These consist in an inflammation of the mucous coat of the stomach and small intestines, rarely, if ever, followed by ulcerations. I have some reason however to believe, that the affection is rather a follicular than, as is generally supposed, an erythemoid inflammation; a disease of the innumerable glands or follicles extended from one end to the other of the alimentary canal, rather than a common vascular inflammation. The attention of the reader is called to the following

Dissection.

June 30, 1828.—The child, aged twenty months, has had, for the last three weeks, the usual symptoms of cholera infantum, attended with a little hooping-cough. The death was unexpected.

Abdomen: peritoneal surface of viscera healthy; liver of a light yellow colour; gall-bladder distended with bile; spleen healthy. Mucous membrane as follows: that of the stomach of a sienna colour, and of a consistence which permitted it *to be scraped off very readily* with the finger nail. On the small intestines it was generally of the same colour, but interspersed at distant intervals with patches of injected blood-vessels, but no extravasation. The clusters of muciparous glands or follicles were very distinct to the naked eye, and had their orifices also enlarged and tumid. The same condition of the muciparous follicles prevailed in the large intestines from one end to the other; but they were larger and more tumid, and gave to the mucous coat somewhat the appearance of having been sparingly sprinkled with fine white sand. In both small and large intestines the mucus seemed less consistent than usual. The weather being sultry and oppressive, we did not extend the examination further. I carried, however, the whole of the large, and a portion of the small, intestine away, macerated it so as to remove the blood, and then *suspended it in spirits of wine*. This process has made the anatomical characters of the follicular affection much more distinct, by removing the tinge and mucus; and by floating the affected tissue, its folds and processes are kept extended and separated, and thereby give more prominence to the glands or follicles. Thousands of them, the ulceration of which was *previously imperceptible*, are now seen very clearly to be in that state. The maceration and suspension in a fluid, has moreover brought into view several common erythemoid ulcerations on the jejunum, about two lines in diameter, and which escaped my observation entirely during the dissection.

After what has been stated, in this and another similar case, on the *consistence* of the mucous coat of the stomach, it becomes a very interesting object of inquiry, whether this was a normal or a morbid state of its texture. I am as yet deficient in those facts from personal observation, which would enable me to assign some standard of consistence to the mucous coat of the stomach under two years of age. I have, however, no doubt that it is much softer at that period of life than it is in the adult, and the probability is, that from being so soft as to be readily scraped off with the finger nail in the early months of existence, it then increases successively and gradually in its consistence as one advances into old age, and until it becomes a membrane of sufficient tenacity to permit very readily its being dissected up as such with a scalpel. This subject is, however, quite open to inquirers, and sound conclusions upon it made by multiplied observations, would confer a great benefit upon the profession.—*Professor Horner, Univ. Pennsylvania.*

CONTAGIOUS DISEASES.

There are certain diseases considered as contagious, one of the remarkable peculiarities of which is, that when once individuals have gone through them, the charm is dissolved, and they are for ever afterwards in-

noxious. Another circumstance worthy of remark is, that these diseases have their primary seat in the follicular system, as, for example, the small-pox and the chicken-pox. They appear occasionally under such doubtful causes, that the opinion may be reasonably entertained of their spontaneous production in the localities, where they appear from time to time. Have we not then mistaken too frequently this peculiarity of disposition in the organism to fall into certain morbid conditions, for distant sources of contagion, for a power in disease as an essential existence to propagate itself, like plants or animals, by its seeds, as they are ridiculously called? May not cholera infantum, for instance, as a follicular disease of the intestines, be the inevitable lot of every individual of the human family, but under circumstances of various severity, being mild, scarcely perceptible in some, and in others being aggravated by the season of the year, by the local circumstances of the individual, and by his early infancy? May not, in fact, the whole follicular system of the body be successively under the necessity, in most individuals, of undergoing inflammation, the symptoms of which will of course vary, according to the functions of the part in which the follicles are placed, and give rise apparently to diseases having no external analogies? As, for example, in the inherent follicular inflammations of the skin, we have what is called small-pox, from its vesicular or bladder-like appearance;—in the inherent inflammations of the follicles of the intestines, we have what is called a cholera or flux of children, because the bowels are continually expelling their contents, being too irritable in most cases to retain them; and is it not perfectly consistent with the laws of induction, that when a similar innate inflammation attacks the follicles of the trachea and lungs, we shall, of course, have symptoms suited to the organs assailed? In fact, what is hooping-cough but an ingenerate inflammation of the mucous follicles of the air-passages, manifested by the immense transparent mucous discharges, which are brought up by the teacupful after a fit of spasmodic coughing? May not then the theory of contagion rest upon the explanatory fact, that till the ingenerate diseases of the follicular system have been gone through, the individual is liable to have them excited by such individuals as are labouring under a similar affection?—*Professor Horner.*

EFFECTS OF HIGH TEMPERATURE AND COLD WATER ON THE SYSTEM.

The effects of continued high temperatures on the constitution, are the derangement of all the functions of the body, and, ultimately, its destruction. The earlier influences of spring are mildly stimulating; the skin becomes soft and relaxed, the heart beats with greater force, the extreme vessels of the body are filled with a fuller tide, and the fluids of the body come to occupy a larger space. Hence, if the relaxation of the vascular system does not keep pace with this expansion, a tendency to various hæmorrhages from rupture, or other consequences of over-distention, arise; of these are headach, langour, anorexia, constipation, &c. Bloodletting, or cathartics, are each capable of giving a notable share of relief to these disorders. My preference is for the cathartic; the most complete and permanent relief is best gained by a persevering use of aloetics. There are, however, measures by which I think a resort to medicine is rendered unnecessary; reduction of diet, vegetable aliment, a careful avoidance of sudden change in the dress, and the use during the heats of spring and early summer, of ice and iced water, which latter I am disposed to recommend from attentive observation. Cold thus applied, I look upon as one of the most effectual, as well as grateful of our tonics, doing away the feeling of vacuity and oppression at the stomach, so well known to the unhappy dyspeptic, and occasionally felt, perhaps, by every one, relieving all the other irregular sensations of internal heat and irritation, and proving abundantly diaphoretic. Indeed I know not a more prompt and certain sudorific, whether in health or disease, than a draught of water as cold as it can be taken. I am not unaware of the generally received opinions of the danger attending the use of such cold water when the body is heated. I have before me at this moment the treatises of Rush and Currie upon the diseases occasioned by drinking cold water in warm weather. I might content myself by referring to the important discrepancies in their statements and their reasonings upon the subject; the first attributing to the strong contrast, or shock, all the ill effects detailed; the latter, whose reasonings are more full and ingenious, yet still not altogether satisfactory, ascribing them to a debilitating power exerted on bodies already weakened by fatigue and sweating. After due consideration of the facts stated by both, we must come, I think, to the conclusion, that some condition or circumstance essential to the production of the evils detailed, has been overlooked or omitted by both; that is to say, that the death in the single case noted by Currie, and in the similar cases quoted by him from other authors, and the deaths and symptoms recorded by Rush, were not occasioned *simply* by the drinking cold water, either when very hot, or while cooling after having been much heated. It is to be observed, that I do not

doubt or deny the danger of applying cold to the *surface* when in a relaxed state. On this point I fully agree with Currie; but this is foreign to our present discussion. I have never seen a death from drinking cold water, nor have I been able to obtain any authentic account of such an event having occurred since I have been engaged in the practice of medicine in this city. Yet here, if any where, such accidents should occur. Immense quantities of ice and iced fluids are daily consumed here, by persons subjected to the several conditions set down both by Rush and Currie, as calculated to favour the morbid influence of the agent in the highest degree. The effects to be produced by cold drinks while the body is in a heated state, will occur as well when the water is at 80°, or when toddy or punch have been the medium employed.

In cases of phrenitis, which have occurred to me, I have not, in the first instance, employed the lancet. All that could be hoped for from this useful instrument at this period was as perfectly, easily, and surely effected by cold affusions. He who has not learned the efficacy of this simple remedy in cerebral affections, may add an important agent to his list. The patient being raised to a sitting posture, cold water should be poured from the height of a few feet upon his head. The flushed face will become pale, the hard quick pulse will sink to a mere thread, and the coma and stupor will rapidly subside. Again and again the symptoms returning, will call for a repetition of the affusion. I saw in one day five persons in the situation above described, three of whom recovered entirely under this simple means of cure. If the recovery was not thus complete, and mania and phrenitis supervened, the cases were, for the most part, manageable, but now a free use of the lancet became necessary, and purgatives of the *most active* power were demanded.—*Professor Dickson, Med. Col. S. Carolina.*

CASE OF AMNESIA.

It is a question yet to be decided, whether the intellectual and moral faculties have for their various modifications distinct organs, or have the brain as a common organ, in which the different faculties may be displayed. This question is to be mainly resolved, it is most probable, by a careful attention to the intellectual phenomena in a morbid state. In this view, the following case, it appears to me, is deserving to be placed on record:—

The Rev. Mr. R., ætat. 48, is of a sanguine temperament, tends to obesity, enjoys excellent health, his intellect of a high order, temper good, and lively. He has lately experienced some mental anxiety. Sept. 5th, 1828, he awoke early with headach, after a restless night. He had taken a sudden cold the previous evening. Some castor oil now exhibited acted freely, and he again laid down. At eleven I was sent for suddenly, and found him in bed, evidently in the full possession of his senses, but incapable of uttering a word. There was frontal pain over the eyes; the tongue was in no way affected. All my questions were perfectly comprehended, and answered by signs; and it could be plainly seen, by the smile on the countenance, after many ineffectual attempts to express his ideas, that he was himself surprised, and somewhat amused, at his peculiar situation. The face at this time was flushed, the pulse full and somewhat slow, and to my inquiries if he suffered pain in the head, he pointed to the front of his forehead as its seat. I directed hot water to be brought in a bucket, for a pediluvium, and made preparations to draw blood. Mr. R. exhibited at this time a strong desire to speak, and, after a great many ineffectual efforts, endeavoured to make me comprehend his meaning by signs. Finding I could not understand him, he made a sign that he would write. When furnished with pen and paper, he attempted to convey his meaning, but I saw he could not recal words, and that he had written an unintelligible phrase; it was "Didoes doe the doe." Forty ounces of blood were drawn from the arm, and before the operation was completed, speech was restored, though a difficulty continued as to the names of things, which could not be recalled. The bleeding and pediluvium produced some faintness, and he was placed in bed. The loss of speech appearing to recur again, in fifteen minutes, ten ounces more of blood were abstracted, and sinapisms applied to the arms, legs, and thighs, alternately: the skin became moist, and the headach was relieved. Mr. R. now communicated to me, that when he made the attempt to write, he had intended to inform me he had already used a foot bath, and I might see the floor still wet, where the water had been spilt. The sleep that night was disturbed by uneasiness and throbbing in the head, which disappeared in the course of the 6th, and no further return of the affection has occurred.

The inferences to be drawn from these facts, are, 1st. That as the cerebral irritation produced no general affection or disturbance of the functions of the brain, it was local or limited: and, 2d, as loss of language was the only functional derangement of the intellectual faculties, that faculty must have been connected with the portion of the brain, the seat of the irritation; and, 3d. That an organ of language exists in the brain. This case lends a strong

confirmation to the general truth of the doctrines of Phrenology.—*Dr. S. Jackson, Pennsylvania.*

CASE OF TRACHEOTOMY.

A child of Mr. F. took a bean into the trachea, the symptoms attending which, clearly indicated the necessity of an operation, which was performed in the following manner:—A heavy table was provided, with the side leaves turned down, leaving a horizontal surface, sixteen inches wide, covered with blankets, with a firm roll of cloth four inches in diameter across the end. The child was firmly secured on the back by the hands of assistants, the nape of the neck resting on the roll of cloth, the head carried far back over the end of the table. An incision was made from the lower edge of the thyroid cartilage to within a quarter of an inch of the sternum. After waiting a few moments for a slight bleeding to subside, a puncture was made into the trachea, with a slender double-edged scalpel in the centre of the incision, dividing one cartilage; then with a curved probe-pointed bistoury, the puncture was dilated from within outwards, dividing one cartilage above and one below. In this elongated state of the parts, the division of three cartilages made an opening sufficiently free to admit the forefinger of the left hand into the trachea. The finger was introduced to separate the edges of the incision, which did not incline to retract. Immediately after withdrawing the finger, with a spasmodic effort, a bean was expelled with considerable force, and lodged on a bed which stood in the room. This saved us the trouble of attempting that part of the operation which I most dreaded; for experience had taught me to envy no man the pleasure of probing in the trachea for beans or peas. Half an hour after, the opening still retained the shape of the finger, large and free; the divided cartilages had approximated but very little. The wound was then brought together, and secured with adhesive plaster, and being unwilling to disturb the stomach, we gave no medicine, excepting a few drops of laudanum, at the same time directing a spare diet. The plasters succeeded imperfectly, partly in consequence of the action of the mastoid muscles, and because the opening was rather too low on the neck to admit of their being applied to the best advantage. The air rushed through the aperture occasionally for forty-eight hours, but never after. I dressed the wound a few times, and discontinued my attendance in about two weeks. At the time of the accident, the child had not entirely recovered from the hooping-cough, but the cough troubled it very little after the operation. The wound was cicatrised at the end of eighteen days. A short time previous to this, a slight dysenteric affection took place, for which the family gave some domestic medicines. A few worms were discharged, and the child soon recovered, the cough wholly subsiding at about the same time. The result of this case may, I think, be attributed in part to the position of the child when the opening was made. By carrying the head very far back over the cylinder of cloth, the trachea became considerably curved. In the act of coughing, the bean was suddenly carried from one end of the trachea to the other, and when forcibly propelled, would probably incline to the longest side of the curved tube; the opening being in that part, and as large as the cavity of the trachea, we had some reason to expect what actually took place, the expulsion of the bean. By introducing the finger, and turning it a quarter round, the elasticity of the cartilages seemed to be destroyed, or at least suspended for a length of time sufficient for our purpose. In an older subject, the elasticity might not have been so easily overcome in this manner. The operation never seemed much to affect the general health of the child, and the most difficult part of the after-treatment was to restrain the immoderate indulgence of the appetite for food.—*Dr. Howe, Billerica.*

MR. STEPHENS'S REPLY TO HIS VERY IGNORANT REVIEWER.

To the Editor of THE LANCET.

SIR,—I wish it to be understood that I am by no means annoyed by the remarks of a reviewer, on my work, but he having disputed my claim to an important distinction in disease, I felt it incumbent upon me, either publicly to acknowledge my error, or publicly to disprove his statements. A sense of what was due to liberality and justice ought to have compelled him to insert it, but as he refused so to do, I was induced to seek your assistance in giving it publicity; but as a reply in full to his objections probably appears to you unnecessary, I shall be obliged if you will insert the following abbreviation.

The reviewer disputes my claim to the distinction of "obstructed hernia," by saying, that although these cases "have not, perhaps, been dwelt upon by systematic writers, with all the minuteness they deserve," yet that they have been "abundantly known to operative surgeons, and incidentally mentioned by various writers," and he refers his readers to a clinical lecture of Mr. Charles Bell, at page 104 of his

second volume. The distinction of Mr. C. Bell in the said lecture, and of the other writers alluded to, is the same as is described by Scarpa and Mr. Lawrence, under the heads of acute and chronic strangulation, implying an acute and a chronic constriction. Mr. C. Bell has given two diagrams, one showing the intestine empty, the other, showing it in a state of distention, and *constricted*, and this he calls incarceration, because the constriction is not sufficiently tight to constringe the veins, &c. The following are among his words, "Strangulation is another stage, where the stricture *is not only* so tight upon the intestine as to prevent the passage of the contents of the bowels, but also to constringe the veins, and at length to stop the circulation." The reviewer has attempted to make his readers believe, that the incarcerated rupture alluded to by Mr. C. Bell, and by various other writers, is the same as the obstructed hernia which I have pointed out; this I deny, for the obstructed hernia which I have described has never yet been publicly taught, defined, or understood before the publication of my work. I have described a state of fatal obstruction occurring from an affixture of the bowel by adhesions, which interrupts the peristaltic movements, and finally destroys the patient, unless an operation is performed; and this state of obstruction I have particularly pointed out as being independent of any *incarceration*, of any *strangulation*, or of any *constriction*, for in the cases which I have detailed, I could easily reduce the hernia; and in the operation, when I opened the hernial sac, I could pass my fingers along, with a great portion of loose intestine, into the abdomen, *without dividing any stricture*, one portion only being affixed to the hernial sac, and causing the obstruction.

The incarcerated hernia of other authors falls under my distinction of "obstructed hernia," but the distinction which I have drawn is by no means comprehended under the head of incarcerated hernia, as described by them. Incarceration, or constriction, may *accompany* "obstructed hernia," but it is by no means essential to its existence, and this constitutes the important difference in the distinction which I have drawn from that of other authors. The distinction between an incarcerated and a strangulated rupture was comparatively of little practical importance, because a surgeon would not, before operating, stop to inquire whether the constriction was or was not sufficient actually to *strangulate*, or stop the circulation in the intestine; but if called to a patient with a hernia, which was free from pain, tenderness, or tension, and which receded, and appeared to return into the abdomen under very slight pressure, he would not attribute the continuance of intestinal obstructions to the hernia, but to some internal cause, and the hernia being of the kind I have described, the patient's life would be lost in consequence. If I had used in the following passage, "Operations upon hernia are not considered necessary or justifiable, by surgeons of the present day, unless strangulation has occurred," the word *constriction* instead of strangulation, which was nevertheless implied, the reviewer would have had no pretence for saying, that "the obstructed hernia of Mr. Stephens has been particularly pointed out by Mr. C. Bell," and is "abundantly known to operative surgeons."

To show that "operative surgeons" *have not known* that a hernia, having *no kind of constriction* upon it, may yet require an operation, I need only quote, as I have done, in my book, from Mr. Lawrence's last edition of his *Treatise on Ruptures*, "That the symptoms of strangulated hernia arise from the pressure of the stricture on the protruded parts, and that this cause is not only adequate to that effect, but indeed the only one that can be assigned, is too clear to admit of any doubt."—Page 62. If Mr. Lawrence, who is one of the "operative surgeons," had known that the symptoms of a strangulated hernia, differing only in degree, could be produced without any pressure of a stricture whatever, but simply from an adhesion of the bowel to the sac, interrupting its peristaltic movement, would he have written the foregoing passage in his last edition? The "engouement," or obstruction from accumulation, or choking up of fæcal matter, alluded to by Richerand, and quoted by another journalist, is in every respect the same as the chronic strangulation, or incarceration of Scarpa and of Mr. Lawrence, but is in every way essentially different from the obstructed hernia mentioned by me.

The part on inflamed hernia, which explains a most fatal class of cases of rupture, has been misrepresented in some parts, and misunderstood in others, by the reviewer. I have answered his objections in my reply to him, but want of space will prevent me here. My proposal of a probable method of radical cure is objected to by the reviewer, who says, "We refer our readers to Mr. Lawrence's valuable work on hernia, in which they will find little encouragement for attempts at radical cure." Mr. Lawrence objects, that an operation upon a hernia should never be undertaken for *the sole* purpose of a radical cure, because it subjects the patient to danger for the relief of an inconvenience only. His words are—"The subject of an incarcerated rupture submits to the operation to save his life; but he whose hernia is reducible, exposes

his life to avoid an inconvenience."—Page 120. To show that so far from differing, I agree with Mr. Lawrence, I will quote from my book the following passage:—"I wish it to be understood, that I do not recommend the operation to be undertaken for this purpose solely, (radical cure,) but when an operation for hernia becomes absolutely necessary, whether from strangulation, or from obstruction, or in consequence of such symptoms as denote its approach; then let it be borne in mind, that it is possible so to perform the operation, as not only to relieve the peculiar state for which it was undertaken, but also to effect the desirable result of a radical cure of the disease."

The review of that part of the work on mechanical obstructions, is a similar misrepresentation and partial statement. The reviewer says—"The author here passes from the rational and intelligent practitioner, into the enthusiast. The object, in fact, is to propose that, in cases of mechanical obstructions, we should *rip open the belly* and remove them." I have, indeed, recommended, in a case of subacute mechanical obstruction, such as is recorded by Mr. Dalrymple, in Sir Astley Cooper's work, and which I have quoted, where "there is neither tension nor tenderness of the belly, *except at the umbilicus, around which part, to the extent of about a hand's breadth,* a slight degree of pressure gives pain," and where, after death, the intestines are found to present "neither upon their peritoneal coat, nor in the interspaces of their convolutions, any of the usual results of inflammation," except "in the centre of the umbilical region, *and in the situation to which the peculiar sensations* of the patient were referred, (see Sir A. Cooper's work,) I have, in such a case recommended, where the symptoms denote that no destructive inflammation or disorganisation among the intestines has ensued, and where "*the peculiar sensations of the patient*" point out clearly the seat of the obstruction, that "rather than resign a patient to inevitable death," we should "attempt the only possible means of rescue," and for this I am described, by the reviewer, as an enthusiast, and by way of example, he instances a case (of which he says I am obviously ignorant) of artificial anus, where M. Roux "accidentally sewed the wrong ends of the intestine together, in a Quixotic expedition of this kind into the abdomen of a woman, who suffered under *a loathsome* inconvenience indeed, *but one not attended with danger.*" To found an argument against an operation for the relief of mechanical obstruction from such a case, is like contending against the expediency of ever having recourse to the operation of amputation, because a surgeon once, in mistake, removed a sound limb, instead of the diseased one. By way of answer, I referred the reviewer to THE LANCET and the Medico-Chirurgical Review for 1825, for the records of a case (of which he was obviously ignorant) extracted from Hufeland's Journal, where a German doctor actually performed this operation of gastrotomy for the relief of intussusception, and the patient recovered. I also referred him to the Medico-Chirurgical Review for 1827, page 188, where he will find, that the editor of that journal is of the same opinion as myself, namely, that "gastrotomy would, in all probability, have saved this man's life," alluding to the case of a servant of Mr. Belzoni, whom he attended.

I shall be obliged by your giving insertion to the above, as the true understanding of the above distinctions are important to the profession, independently of my personal feelings, for which alone I should not have troubled you.

I am Sir, &c.

HENRY STEPHENS.

54, Stamford Street, Blackfriars.

DELICATE PROFESSIONAL APPLICATIONS.

To the Editor of THE LANCET.

SIR,—Having become the partner of the late Mr. Hurst, and the practice devolving at his death on me, I find the enclosed circular has gone the round of my patients.

I have to request that you will publish it; and I beg to be informed, if such means are commonly resorted to, and whether they are creditable or professional?

I am, Sir, yours &c.

E. DAVY.

390, Strand, May 29th, 1829.

P.S. I am bound to request, that the name of the gentleman to whom the enclosed was sent, may not appear. I know nothing of, and have never seen Mr. Clarke.

SIR,—In consequence of the lamented death of Mr. Hurst, your late medical attendant, I beg permission to offer myself to your notice,—the grounds upon which I presume to solicit your patronage are, that I served a five years' apprenticeship to Mr. Hurst, and was afterwards nearly three years his visiting-assistant, during which period, I had the honour of attending most of his patients, although I fear you may have forgotten me, as it is two years since I left Mr. Hurst to practise on my own account, at 4, Charles Street, St. James's Square.

I will take an early opportunity of waiting on you, and have the honour to be

Your obedient servant,

HENRY CLARKE, M.R.C.S.

Monday, May 25, 1829.

COMPARATIVE EFFICACY OF BLEEDING AND QUININE IN INTERMITTENT FEVER.

By THOMAS HEAD, *Esq., House-Surgeon to the Alnwick Dispensary.*

THOMAS LIDDELL, ætat. 21, a countryman, of dark complexion, and not unhealthy appearance, was admitted into the medical ward of the dispensary on the 9th of April; the cold state had gone off; he was, when visited, suffering from headach, thirst, with considerable heat of skin and fever: his pulse was full, and expanded, beating 89 in a minute; the sweating stage succeeded, which lasted about two hours. He gives the following history of his disease; says that he was living as a farm servant in the neighbourhood of North Shields, in a wet and swampy situation, about three weeks ago; that he was exposed to rain, and got his feet wet, in which condition he remained many hours; the day after, he was attacked with headach, sickness, pain in the back, with fever and thirst, for which he used some fever medicines without benefit; after continuing in this state a few days, he was attacked with shiverings, which were succeeded by the hot and sweating stages of ague, that these at first only recurred every other day, but that for a week past he has been seized daily at about two o'clock, P.M.

10. Heat of skin natural; pulse regular, soft, and beating 52 in the minute; tongue clean and moist; bowels moved yesterday; has no thirst; urine rather scanty, and after standing, exhibits a pinky deposit. The cold stage came on at two o'clock, P.M., when about twelve ounces of blood were with difficulty drawn from the arm; the shivering, although not arrested, appeared to be less severe, and of shorter duration than yesterday; the hot and sweating stages were also less urgent, and of shorter continuance.

11. Has passed a tolerable night, and says that he feels free from complaint; skin of the natural heat and moist; tongue clean; pulse 86, full and soft; bowels rather confined, for which he has to take ʒvi. ol. recini in the evening. The cold stage returned at the same time as yesterday, but was certainly less severe, as well as the hot and sweating stages; the shivering lasted twenty minutes, while the hot and sweating stages continued their usual time.

12. The attack was much the same as yesterday.

13. The cold stage occurred at the usual hour; after it had lasted five minutes, fourteen ounces of blood were abstracted, which, in a trifling degree, checked the tremour, and the consequent stages were not severe.

14. Much the same, in every respect, as yesterday; says he feels weak when he attempts to walk.

15. The shivering returned at two o'clock, and twelve ounces of blood were drawn, by which the shivering was checked; the hot and sweating stages observed their usual degree of severity and duration.

16. The cold stage commenced more than an hour earlier to-day, was more severe, and continued longer; the hot stage followed in an aggravated degree, and the sweating was much greater than it had ever before been; says he finds himself much weaker; has always been troubled with a short dry cough during the cold stage, which was before omitted to be mentioned, and which disappears on the accession of the hot stage.

17. Bowels open, skin cool and moist, pulse quick, small, and feeble, which rendered it apparent that the bleedings could not with propriety be repeated, and he was therefore requested to begin at eight o'clock the following morning with four grains of sulphate quinine every hour until twelve o'clock, when eight grains were to be administered; twenty-four grains of the medicine had been taken at half past twelve o'clock, the cold stage came on, seemed less than the day preceding; the subsequent stages were considerably less than they had ever been.

Vespere. Says he feels tolerably well, and has taken some castor oil to obviate costiveness. Ordered to resume the quinine at eight o'clock in the morning.

18. Vespere. Has had no return of the disease; says he feels comfortable, and free from all complaint but weakness.

19. The same as yesterday; has reduced the quinine to twenty grains, and taken some castor oil to move his bowels.

20. Continues well; to continue the use of the quinine and castor oil.

24. The same, in all respects, as last report. Ordered to continue the medicine thrice in the day, in doses of four grains.

28. Says he is perfectly recovered, and wishes to have his discharge, which was given him; he was desired to continue the use of the remedy for a week longer.

May 14, 1829.

ON THE IMPORTANCE OF BOTANY TO THE MEDICAL PRACTITIONER.

By WILLIAM HOWISON, M.D.

WITHIN the last year, botany (under the name of medical botany) has been added to the regulations of the Royal College of Surgeons of London, Apothecaries' Company, &c., in conjunction with materia medica. The intention of this paper is to show the impropriety and folly of such a regulation, by proving that botany cannot be, nor ever was, properly taught in the above way,

in London, where a course of lectures embracing medical botany and materia medica, only extends to three months. Materia medica alone ought properly to take up the whole period, consequently no time can be spared for botany. In Edinburgh, where the course extends from five to six months, materia medica, pharmacy, and dietetics, are all included; consequently the same remark must be made. I have now taught materia medica and practical pharmacy for eight years in Edinburgh, and I feel every year more and more convinced of the propriety and the necessity of confining my attention entirely to practical pharmacy and materia medica during that period, excluding botany and dietetics entirely, and have accordingly done so of late. Were I doing otherwise, and introducing medical botany, I would not benefit the student ignorant of general botany, in the slightest degree, and must make a jumble and confusion of the whole.

How, I would ask, is a medical student to be taught medical botany, if he be entirely ignorant of general botany, which more than three-fourths of them are! What is he to benefit by being told, in describing conium maculatum, or hemlock, that it belongs to the umbelliferæ of Jussieu, or to the pentandria digynia of Linnæus, if he be ignorant of the nature of the calyx, corolla, &c., of the Linnæan and Jussieuer arrangements? Any man acquainted with general botany must be aware, that it is a science so extensive, as not to be acquired in a shorter period than from three to six months, with the greatest industry, opportunity, and attention, and that medical botany is merely a more advanced branch, detached from it as a whole. The individuals who introduced the regulations now complained of, never were enthusiastic or proper botanists; and their having done so in such a careless manner, is sufficient proof of this! Every medical man ought to know general and medical botany as an interesting part of his profession, and he can only acquire that knowledge by attending diligently and attentively one or more courses of general botany of three months' duration. Every medical officer entering the army, navy, or public service of his country, where he possesses ample opportunities of moving from place to place over the earth's surface, ought to know intimately general botany, as putting it in his power to benefit the human race, and to employ his spare hours to advantage. The carrying this improvement into effect, lies with the different public medical bodies, the army and navy medical boards, by abolishing from their regulations medical botany, as it at present stands connected with materia medica, and insisting upon every student attending a course of general botany of at least three months' duration, previous to his obtaining his diploma or liberty to practise.

9, Nicolson Square, March 15, 1829.

POST-MORTEM EXAMINATIONS AT ST. BARTHOLOMEW'S.

To the Editor of THE LANCET.

SIR,—As so much trouble has already been caused you about the *post-mortem* examinations at St. Bartholomew's Hospital, I shall merely take the liberty of asking, whether you consider it fair, that all the *most interesting* cases (of one of the surgeons) should be examined at so early an hour as seven o'clock in the morning, without any previous notice having been given to the pupils, as they must then lose that shadow of a chance of hearing of them, which they possess when the examinations are conducted in the middle of the day?

I have the honour to be, Sir,
Your obedient servant,
A PUPIL.

St. Bartholomew's Hospital, May 30.

PROPOSED REMEDY FOR GIBRALTAR FEVER,

AT a late conversazione at the College of Physicians, a paper, by Mr. P. Jeffrey, who has long resided at Gibraltar, was read, on the prevention of fever at that fortress. Mr. Jeffrey attributes the fever to the bad construction of the drains of the fortress, and suggests the establishment of a steam engine at Europa point, for pumping up a supply of water into a reservoir to be formed in the rock above the town, having the drains so constructed, that the water contained in the reservoir might, every night, completely cleanse out their contents. At present they are allowed to remain quiet for some days, which, owing to the excessive heat of the sun, occasions dreadful smells. The plan has been under the notice of three persons connected with government, and is regarded with considerable approbation. Mr. Jeffrey argues that the vapour arising from the drains and cesspools is the operating cause of the fever. Fresh water is very dear at the fortress; and the only mode of obtaining salt water for the purpose of cleansing the place, would be by the means suggested.

THE LANCET.

London, Saturday, June 13, 1829.

TRUTH and justice have prevailed—the Anatomy Bill no longer disgraces the table of either House of Parliament, nor outrages the feelings of the profession and the public, by its iniquitous and impolitic provisions. The moment we perused this Bill, we expected that this would be its fate, and have repeatedly expressed our conviction to that effect in the pages of this Journal. The petition to the House of Lords, which we published last week, was presented on Friday evening, just before the second reading of the Bill was moved. It was laid before the Right Honourable House by the Earl of HARWOOD; and to the zeal and love of justice of this excellent Nobleman, we are indebted for its having been *read at length*, a mark of distinction which no other Petition against this Bill has received. From some gentlemen who were below the bar, we have learned that its contents produced a very powerful sensation throughout the House, and we have the best reasons for believing, that the silence of those who had previously advocated the measure, (Lord LAUDERDALE for one,) was occasioned by the "new lights" which burst upon their Lordships, relative to the monopoly of the College of Surgeons, in producing the difficulties opposed to the cultivation of the science of anatomy. The House was not even divided on the Bill, and with the exception of Lord CALTHORPE, who moved the second reading, not a word was uttered by any noble Lord in favour of this impolitic measure. We certainly regret that Parliament is about to be prorogued, without having passed a Bill, having for its object the prevention of such horrid crimes as were last year committed in Edinburgh; and if the measure recently before the House had been in any way calculated to promote so desirable an end, we should have passed over many objectionable provisions in silence. For surely that community cannot be in a very happy or in a very secure condition, the members of which hourly run the risk of being murdered, that their bodies may be disposed of to some trading and mercenary anatomist, for four or five pounds. This, we say, cannot be a very enviable state of society, but we are thoroughly persuaded, that it would not have been improved by the passing of the Anatomy Bill.

It afforded us great pleasure to perceive, that the Marquis of LANSDOWNE in the course of the debate gave notice, that should a Bill for regulating schools of anatomy be introduced into the House during the next session of Parliament, that he would move the repeal of the statute which consigns the bodies of murderers to dissection. This and the total prevention of the *sale* of human bodies, must be the first steps towards any Act which will be sanctioned by the public, or which can have the effect of facilitating the study of anatomy, or of securing them against the daggers of assassins. Before the opening of the next session of Parliament, we shall repeatedly discuss this subject, and, we hope, until every member of the legislature shall have acquired a full knowledge of the share which the London College of Surgeons has had, not only in creating the obstacles of which the profession has complained, but also in the commission of the Edinburgh murders. The members of the Council, morally, are scarcely less guilty than the atrocious Burke, and at a public meeting in the autumn, they may, probably, have an opportunity of learning the opinion of their professional brethren on this subject.

AN attempt is making to obtain for Mr. BRANSBY COOPER the title of F.R.S. His certificate is signed by Sir H. Halford, Cockney Mayo, Dub Mansfield Clarke, Little Brodie, and two or three other persons of the same stamp! What next?

Questions proposed to the Class of Practical Anatomy, with the Answers returned by the Four most distinguished Students, at the Examinations held in the University of London, for the Session 1828-9. London. Taylor. 1829. Crown 8vo. pp. 48.

Few will be disposed to deny the advantages which must ever result from bestowing upon pupils of talent and industry prizes and honours, in all large medical schools. But the manner in which many of the examinations for these marks of distinction are instituted, completely perverts the principle upon which rewards should be conferred. In many of our schools, medals and other prizes are mere baits thrown out by the lecturers to catch the pupils' fees, and students on hearing that prizes are easily obtained in a particular school, become anxious to enter there, in the expectation that with very little exertion they will be enabled to obtain, if not the highest rewards, some minor prize or mark of honour. It becomes, therefore, matter of great public importance, if distinctions are to be conferred upon particular students, that their claims to such distinctions should be made known. Otherwise, idle and incompetent teachers may puff themselves into notoriety, and, at the same time, send before the public an inferior class of practitioners, bedecked with gold and silver medals, and honorary diplomas. To render, therefore, the possessors of such prizes worthy of respect and confidence, the examinations should be in public, and the examiners and arbiters should not be the professors themselves, but should consist of gentlemen altogether unconnected with the classes. Further, the prizes should not be numerous, because their value will always be in the direct ratio of their scarcity and the difficulty of obtaining them. Honours thus won and awarded, will always mark their possessors as objects of respect. But bestowed as they now are in many of our schools, they render the pupils who obtain them subjects of ridicule, and the lecturers who give them objects of scandal and reproach. It is, therefore, with the highest satisfaction, that we have seen the little volume now put forth by Mr. Bennett. It is at once a proof of his talents and honesty.

As we gave a full account, in No. 300, of the manner in which prizes were awarded at the London University, and the names of the successful candidates, we shall only extract the eighth question and answer, for the first silver medal, obtained by Mr. Benjamin Phillips of Monmouthshire.

Question 8.—*The anatomy of the duodenum.*

Answer.—The duodenum is the commencement of the small intestines, succeeding immediately to the stomach, lying concealed by the transverse mesocolon. It is divided into three portions: the first, about two inches long, commences at the pylorus, passes horizontally backwards and to the right, and near the neck of the gall-bladder forms an angle with the second, which descends vertically, and ends near the third lumbar vertebra; the third, continuous, passes transversely to the left, and before the vertebral column, towards the superior extremity of the mesentery. In this course it forms a semicircle, which embraces the head of the pancreas. The first portion has, more or less in front of it, the liver, gall-bladder, and transverse colon. The second, or perpendicular portion, has in front the ascending colon, and behind it the right kidney and its vessels. The third portion is crossed in front by the superior mesenteric artery and vein, which separate it from the pancreas, and behind it has the vena cava, aorta, and vertebral column. Its inner surface is mucous like the stomach, having many curved folds (the valvulæ conniventes) formed by the inflection of the mucous membrane. At the point of union of the second and the third portions is a small tubercle, at whose summit are seen the united or isolated orifices of the biliary and pancreatic ducts. The duodenum is not completely invested with serous membrane. Its muscular coat is thick, nearly all the fibres being transverse like those of the stomach.

As this answer may be taken as a pretty fair specimen of the whole, the public can appreciate the impartiality and discernment of the different professors in awarding the prizes.

CASE OF HYDROPHOBIA.

Communicated by Charles Brady, *Esq.*

——— Edwards, aged 45, a dealer in dogs, was bitten on the morning of the 10th of April last, by a dog to which he had been giving aperient medicine, and came to me for the purpose of having the wound cauterised.

On inquiring into the circumstances, it appeared that he had been extensively connected with a trade in these animals the greater part of his life, had been frequently bitten, had often seen dogs in a rabid state, and, consequently, had many opportunities of knowing their various states and conditions of health. In the present case, he positively affirmed that the dog was neither rabid nor viciously inclined, but that he had been accidentally bitten by the dog, while making an effort to close its mouth after the administration of a dose of salts. He consequently refused to allow me to excise the bitten part, which I was very anxious to do. I therefore saturated the part with strong nitric acid, to produce sloughing, and destroy any virus which might have been communicated.

I afterwards saw the dog. It was labouring under pain and uneasiness, from frequent efforts to void fæces; this it shortly did, and immediately devoured them. He also took oil and food, with greediness. On the patient's (his master) speaking to the dog, the animal fawned on him, and appeared in no way vicious. The eyes were slightly turgid; but, on the next day, this was gone; the animal lay quiet, walked firmly, breathed easily, showed no saliva, had drunk, evacuated, and showed not the slightest symptoms of rabies. In the evening he died, without apparent pain, and knew, and caressed his master to the last moment. On examination, the stomach presented its natural appearances; there were a few ends of straw present, there was neither turgidity nor inflammation; the duodenum was impacted with black fæces of a purely stercoraceous nature. Under all the circumstances, I came to the conclusion, that the animal was not rabid, and that his death had been occasioned by constipation. His master said, it was not unusual for dogs to die in the same way. The interest of the case is enhanced by the doubt there exists, whether the dog laboured under hydrophobia or not.

On Wednesday, the 27th of May, at 6 P.M., forty-seven days after the accident, the man came to my house in the greatest anxiety, and stated, that it was all over with him, that his hand and arm had been greatly pained the day previous, that he had had cold sweats during the night, and felt chilly now, and could not drink water without spasm and fear, though thirsty. I requested him immediately to return home, and in a few minutes I saw him, with Mr. Shea of Great Charlotte-street. We presented him with a little salts dissolved in water, which he was obliged to quaff very precipitately, experiencing for a few seconds much spasmodic action. He then resumed a quiet manner and conversed rationally, repeatedly saying, as he continued to say throughout, that he should be much better if he could be sick.

The symptoms were now of too unequivocal a nature to admit of a doubt of their arising from hydrophobia. Anxiety of countenance, rapidity of motion, spasm of the pharynx, rigours and stertorous breathing, were very marked; the pulse small, feeble, slightly remittent, and 76. Three grains of calomel, and one of opium, with one ounce of castor oil, were administered. At 9 P.M., I found him in a comatose state, waking at short intervals. I had then seen Mr. Callaway, who wished him to enter the hospital immediately, and on a promise that he should not be left there, he consented to go. Drs. Bright and Addison now saw him with Mr. Callaway, who all concurred in opinion as to the cause. He was ordered to be cupped to ten ounces, a belladonna plaster to the scrobiculus cordis, an enema, with tincture opium, two drachms—tincture asafœtida, half an ounce—sulphuric ether, half a drachm, every three hours. A suppository with four grains of opium, and five grains sulphate of zinc, to be kept in the rectum.

At 2 P.M. a second consultation was held; the sufferer's case had become decidedly aggravated; his sickness and desire to throw up mucus from the larynx increased; at seeing or hearing fluids, the spasms returned; his pulse 100, and intermittent; his countenance wretchedly anxious; bowels slightly relaxed; tongue less white than in the morning; on suddenly rising in the bed, or making exertion, the spasms returned; the interval between the paroxysms shortened; the pain at the scrobiculus cordis violent. The enemata and suppositories on being administered, almost instantaneously came away. He had not submitted to them long, before his temper became exasperated, which rendered it impracticable to continue their use sufficiently long to expect any advantage to follow. It is worthy of remark, that the wretched sufferer could sit for a minute or two, at this time, without being incommoded by the free current of air from the open window.

At 5 o'clock, Dr. Bright, Dr. Addison, and Mr. Callaway again met, when the patient's sufferings were truly appalling, his pulse 109, and intermittent, the four quarters of a minute being, 32, 28, 25, 24. Dr. Bright suggested the propriety of inducing local inflammation in the part, by making an incision, and inserting cantharides, to which Mr. Callaway acceded, and without delay proposed it to the wretched sufferer, who, however, peremptorily refused submitting to the operation. The pure kali was then proposed as a substitute, but this he also violently refused. Two drachms more of tincture of opium, were ordered to be added to each enema. And, in order to render the

suppositories less stimulating, the zinc was discontinued, and each suppository composed of six grains of opium. A consultation was again appointed for nine, but he could not be prevailed upon to see any of his medical attendants, except Mr. Callaway. His pulse had risen to 120, and was intermittent, with peculiar expression of countenance. At 3 A.M. of Thursday, the phrenzy had reached a height at which he could not be soothed, even by his wife and sister, whom he severally attempted to injure by blows; their affection and firmness, however, eventually overcame his rage. At half past 3, he inquired for Mr. Callaway, who, upon being called up, immediately attended, and soothed the unhappy sufferer's mind, and continued to do so by his presence until 5, when he left, the pulse of the deceased being then so rapid, as to render it difficult to count it. From this time, his miseries increased; Mr. Callaway called again at 7, but did not get admitted; in this state the poor fellow continued with scarcely any intermission until half past 10, when death terminated his sufferings.

I am informed by Mr. Callaway, that shortly before his arrival, on the morning of Thursday, the deceased's sexual propensities had led him to express himself very lasciviously.

Charlotte-street, Blackfriars,
June 3, 1829.

THE MEDICAL AND PHYSICAL JOURNAL.

THE last Number of this melancholy magazine exhibited a glaring instance of "the scant measure that is abominable," and this fact we took an early occasion of hinting to the editors. The case appeared the more flagrant, because the measure was leanness itself in quality, as well as quantity. Our hint on the subject, however, has not passed unheeded, for Mr. Souter, sensible of the injustice of charging half a crown for half a dozen pages of bald matter called "original papers," though a large parcel of reprint may at the same time be thrown into the scale, has this month sent forth a number, at least two-thirds of which its purchasers have not paid for before in some other shape.

But, as experience has taught us that mere appearances are deceptive, and that, whatever show it may make, the *Yellow* Journal is not every month a *golden* treasure; that this publication, as in the reign of RODERICK MACLEOD, has often borne a close resemblance to the money of Lycurgus, the weight and value of which were out of all proportion; we shall take the liberty, without further preface, of examining its contents, and ascertaining what the little band of three, (for Dr. Webster's elegant and grammatical second-hand "observations" hardly entitle him to rank as a fourth,) have just contributed towards supporting the character of that work which the unfortunate RODERICK so effectually ruined in the eyes of "the faculty in Europe and America."

We are induced to pass over for the present the paper on the medical schools of Italy, for the sake of a few words on the subject of the second, "*Observations and Experiments on Mesmerism*," which professes to be written by Mr. RICHARD CHENEVIX, a gentleman who is not a member of the profession, but "a fellow of the Royal Society," in which body, we fear, the philosophers are fewer than they ought to be. The subject of Mesmerism has been tied to the tail of Mr. CHENEVIX on the other side of the water, by some French wags, who pretend that they believe in the doctrine (if it be not an abuse of language to dignify such an art with the name,) and we suppose that, like a dog with a tin kettle, or the wild bull of Thebes with Dirce at his tail, Mr. C. will drag this "mesmerism" about, till one of the two, Mr. C. or the subject, (and heaven long preserve the life of the former,) gives up the ghost. It would be perfectly in character with the paper to treat the whole as a joke, which was too good to be spoiled; but this is No. 2 on the same topic, and has been prefaced by another, with which Mr. CHENEVIX rushed into the presence of the sedate public two months since, exclaiming in a voice that, coming from St. Paul's Churchyard, might have been heard in Hyde Park, "Mesmerism is true, is true! Mesmerism is true! Rejoice ye sick, ye maimed, ye bilious, ye blind, and ye deaf, it is true, every word!"

We cannot, in reason, expect such of our readers as are under three or four score years of age, to understand what is meant by the term "mesmerism;" but those who have arrived at this venerable period of life, will probably call to mind some particulars of the birth and progress of a mania which raged for a time in their youth under the name of animal magnetism, an importation from the French capital, after it had been kicked out of every other city on the continent, and was finally knocked on the head in England, in consequence of a patient and most careful investigation into its claims, by a committee of the first philosophers and physicians living. For the benefit of those, however, whose hairs time has not yet silvered, we will state here what mesmerism is, an explanation which is the more neces-

sary, because Mr. Chenevix has not dared—we say has not *dared*—to give one in either of his papers. There is good reason why he should not have done so. There are no words in which he could have framed an explanation, which, thrown into sentences, would have been tolerated, even by his own ear, for one moment, as fit language for a man of science, and the days of alchemy and astrology must return, before he could frame them for the ears of others.

What notion was meant to be conveyed by the term animal magnetism, when it first arose, may be very shortly stated; and we will give it from the explanation of the greatest juggler that ever dabbled in the art. He supposed that matter and space were pervaded by an invisible fluid, of a different kind from any of which philosophy had hitherto taken account. This fluid was denominated magnetism, and was said to possess a peculiar, indefinite, inexplicable, supernatural, magical, spiritual, etherial sort of influence over all things, and that such mountebanks as himself possessed the power of calling it into action, and rendering it subservient to the benefit of the sick and the sore. It happened that though these fellows could magnetise, indifferently, whatever came in their way, whether the object was a pig, a tree, or a handsaw, yet human beings were the grand subjects of their operations, (for neither pegs nor posts possessed purses,) and therefore the magnetism came to be called *animal* magnetism. Further: the agents by which the jugglers professed to direct this influence, were such things as mirrors, reflectors, celestinas, and wands, and a presenting and waving of hands after the manner of bottle imps, as was lately to be seen at the English Opera House; and, finally, because the name of one of the great magnetic conjurors was "Mesmer," and in order to disguise if possible the old absurdity by a new phrase, animal magnetism is now called mesmerism.

In estimating the value of this art, it is impossible to state the principles upon which it is founded, in more definite terms than these. If Mr. Chenevix himself were asked, "what is mesmerism?" he would probably tell you that it was "a sympathy." If you wished to know of what kind was the sympathy, he would very likely mention the words magnetic—attraction—nervous action—and throw himself into the attitude of a fugleman at morning parade. If you endeavoured to obtain further information, he would possibly tell you that it was connected with some action of the mind of a mysterious kind, not to be taught or learned, but to be found out or unwittingly acquired; and if, convinced that there really might be something in the doctrine, you told him, that evidence being the great criterion and sure mark of truth, you should like to have some proof of the existence of this sympathy and man's dominion over it, he would possibly take you before that unhappy dyspeptic JEMMY JOHNSTONE, author of the Medico-Fudgico-Piratico, and in your presence mesmerise Jemmy's bilious noddle, with the same results that you would yourself produce by administering a full box of Mr. P. Pettigrew's ipecacuanha lozenges. Search MR. CHENEVIX'S two papers through, and see how much more light he has thrown upon the subject than this; note how many of the secrets of the art he has disclosed. The mason is not more quiet as to the proceedings of his lodge, nor the privy council of its cabinets, nor a jury of its conferences, than Mr. CHENEVIX on the only point which can give sane men an opportunity of deciding upon his claims to their confidence.

In these remarks, there is nothing harsh or unmerited. We may know, under the rose, pretty well what is the composition of a remedy—yet, if the practitioner make it a secret, he must be called a quack. Mr. CHENEVIX puts his subject forward, and keeps its nature back designedly. What shall he be called? We should be sorry to reply, without having sufficient cause for doing so, if the answer be to his disadvantage. We will therefore give our readers a fair opportunity of deciding. We shall not quote largely in doing this, as the production of a very few sentences must settle the question; these we shall take from the second of the papers, the two being quite of a piece, and neither of them redeeming the other from the charges which may be brought against either.

It is not to be denied that to a person unacquainted with the subject, the statements of Mr. Chenevix, or of any other mesmeriser, are such as would excite in him a certain degree of curiosity; and bearing in mind the professed object of the author, the importance which he attaches to an universal belief in mesmerism, and the anxiety he evinces to create a public interest in it, the first thing a reader would expect to find, is a distinct explanation of the word mesmerism; for on his knowledge of that, ought the basis of his faith to rest. A first reading of the paper, however, affords him so little idea on the subject, that he begins it again. But the second reading excites his suspicion, that he is not to be made as clever as Mr. CHENEVIX on such easy terms. Doubting, however, that he may be dull, he examines every word that can possibly furnish him with a key, but the writer is too wary for him, and rings such a change of terms upon the word mesmerism, whenever he is pushed for a phrase which will enable him to

preserve the thread of his discourse, without furnishing a clue to the art of the mesmeriser—that he sees, it is quite clear, nothing can be gained by pursuing them. The mysterious thing is by turns denominated "an agent—an influence—an art—an application—an experiment—an investigation—an operation—a practice—a treatment—a proceeding—a trial—a science—a phenomenon—a means—a magnetising—a concentrating of mind—a passing of the hands—a new branch of knowledge—a therapeutic—a doctrine—a question"—and, it, it, it, that unlucky pronoun, whenever it can be thrown in to avoid "the too frequent repetition of some noun."

It is of no avail, then, to go to the *parts* of Mr. Chenevix's sentences for the information which is so desirable, and at the retention of which he seemeth to be so profound an adept; resort must be had to the sentences themselves. Surely, in them, he will address the profession in a manner suitable to a man of science, and a fellow of three or four royal societies. It is soon clear, however, that it is not many of these which are trusted with direct reference to the art; few as they are, however, let us have them, and see if they be, on examination, as curious as they promise. Here is a rare bit of writing in the first sentence. If affectation of candour and pure humbug were ever united at all, they are united here. "It is by no means," he starts with saying, "the desire of those who are convinced of the truth of mesmerism, to urge belief upon their mere assertion, but to excite curiosity, to turn the public mind towards this powerful agent, so true, yet so much despised, and to engage some inquirers to lay aside their preconceptions for a moment, and have recourse to fair experiment."

To *fair experiment*, Mr. Chenevix? Is it possible that you write thus, and yet that throughout the whole of your papers you do not let fall one single syllable, which shall enable any person to make the very trial, which you say is the only ground that you possess for confidence. We lay aside the mystical terms in which the whole sentence is written, though it is by no means a bad specimen of the new style, or we should find as much to admire in it, as would occupy a volume of comment. It is for instance, so shrewd to say that mesmerism is true, "this powerful agent is so true." Geometry is true; caloric is true; alkalies are true; pneumatics are true; poetry is true! But your intreaty, that inquirers would make experiment of the art is excellent. Suppose for a moment, that you were perusing an essay by Galileo, who told you, that air possessed weight, or of Pascal, who assured you that it possessed elasticity, or of Black, who affirmed that it would unite with metals, and was an universal agent, which was "true." And suppose that Messrs. Galileo, Pascal, and Black, though they were fully aware that you knew nothing of the atmosphere, or the air-pump, or combustion and attraction, enjoined you to lay aside your ignorance for a moment, and have recourse to fair experiment, in order that you might be satisfied of the truth of these statements, become a wiser man, and science be advanced by an addition to the number of her disciples. Imagine this, and that they then left the subject, without a syllable on the nature of the apparatus with which alone the experiments could be made, or the mode in which they must be conducted. For what should you set these men down?

With this cry of "experiment" does Mr. Chevenix not only set out, but conclude. He makes at the close, a second appeal to his hearers. "By experiment let the truth be told. Let any twelve men in England, devote twelve half hours each to experiment, *secundum artem*, and then let them relate the issue." And under the cover of a phrase which the writer would not translate into the only English words that it will bear, does Mr. Chevenix endeavour at once to exhibit a specimen of his candour, and hide the experiment, which is on the verge of meeting the day-light that must expose it. If mesmerism were truth itself, it would be shamed by such a disciple.

Mr. Chenevix has his pupils, and it was just possible, that if they spoke of the art, the "experiment" might be betrayed. Observe, however, how faithful a set of disciples he has contrived to make them, and how cautiously they have been enjoined to speak in the letters which he ventures to make public. One of the disciples is a Dr. Cotter, of Ballynacatig, in Ireland. He is induced to write to his tutor, acquainting him with a cure which he supposes he has effected by mesmerism. What was the course he pursued? "I proceeded to *try my hand* at mesmerism, in *imitation* of what I had seen you do. After some time, the patient grew quiet. With the hope of *exciting the stomach to action*, I directed my attention particularly to the epigastric region." Continuing this for two or three minutes, the man vomited an immense quantity of liquid. By-and-by his bowels were confined, and "I again had recourse to mesmerism with the same good effect." And there Dr. Cotter quits the dangerous subject. A Mr. Levinge then states a case in which all he can be persuaded to say of the "experiments" is, that he also "directed his attention to those parts," the head, belly, and legs, and gave the patient mesmerised water to drink, a quart every day, but not a word falls out to disclose what mesmerised water is. Then there is a patient

to be mesmerised who is touched with insanity, and of the "experiment" it is stated, that every time the relater drew his hands before the patient, she felt "life going down through her body along with them." Then, in another case, it is observed that the symptoms showed themselves "in one minute after the *operation* began," and that a state of calmness was produced as soon as the *passes* commenced. That the *trials* never exceeded so and so. Then a patient writes that he felt very sensibly affected by the *mesmerism*, and so, on it runs to the end of the chapter.

We are not disposed to carry the exposure much further. Mr. Chenevix must, before long, have ample means of ascertaining whether this is, or is not, "the country whose duty it is to expose the imposture," though it is almost too bad to tax the patience of the public by any attempt to appeal from the "eternal quietus which was given to the science" by the report of Franklin and his coadjutors. Let it, however, continue to be borne in mind, that through the credulity of the people of this country and France, the conjuror Deslon realised a fortune of a hundred thousand pounds, by means of an art which was pronounced, after a most elaborate investigation by the first philosophers of the day, as a wretched and disgraceful piece of deception.

ON VISION.

Of all the mysterious problems in nature, perhaps none appear more paradoxical than some of those which relate to the organ of vision. Such is their distinguished singularity, that they seem to mock the mind with contradictions, or even to reverse the very laws of nature. But while we are assured that these are eternally immutable, it must ever be a maxim with the votaries of science, that it is ignorance alone which creates anomalies, and that every effect, whether plain or mysterious, is equally the result of a palpable principle. Nature is ever consistent: and whenever she exhibits the semblance of error, it is the laudable ambition of the human understanding to prove her congruity.

The following phenomena have often been the subject of curious speculation. Many theories are taught to explain them, yet none has been hitherto fairly established. The two former have excited especial attention, but the latter are certainly no less remarkable.

1. Although the animal race is endowed with plurality of optical organs, and though light from a visible object portrays an image on the retina of each, nevertheless we remark an unity of perception.

2. While every visible object is perceived in its actual position, it is always the converse of the image on the retina.

3. Although it is evident that every image is modified to the curve of the retina, yet every near body seems straight or crooked, convex or concave, according to the true figure of its presenting disc.

4. The retina itself is confined to a mere iota of space; yet from this small tablet is conceived, not only the most minute objects, but also the majesty of greatness and grandeur.

Singleness of vision is not unfrequently attributed to unknown agency, to some peculiar nervous conformation, or rather distribution; but if we acknowledge a peculiar nervous distribution to prevent double vision, must we not allow that a like provision exists to *prevent double sound?* Again, if it be confessed that the parts of the retina which correspond in structure correspond in function, that theory which supposes corresponding parts of the retinæ may be easily confuted. Now it is argued, that when a person whose sight is perfect, looks directly at an object, the axes of both eyes are inclined towards each other, and then the images are formed on corresponding points of the retinæ, and hence single vision must result. Let the reader try the following experiment. The eyes being directed on any distant object, cause any other small body to intervene, at a very short distance (the finger may be held a few inches distant); the axes of the eyes may be still towards the distant object, while attention is given to that which is near; the effect will be, that the distant object will appear single, and the near one double. Now, although the axes of the eyes do not correspond in direction with the nearer object, every optician will allow, that its images are formed on parts of the retinæ, which correspond as precisely as those parts which are found to correspond with the axes of the eyes. Now, let it be observed, that this is an example of double vision, which is not produced by any obliquity of the visual organs, but the axes of the eyes do not meet on the object, and this is alone sufficient to produce double vision.

Then if the physiologist affirm, that so long as the images of an object are disposed on corresponding points of the retinæ, single vision must result, his doctrine is erroneous. Nevertheless it is true, that when the axes of the eyes correspond, and single vision is effected, correspondence in the visual parts of the retinæ is also observed. Now these arguments tend to prove, that mere correspondence of the parts of the retinæ will not account for singleness of vision.

The apprehension of an external object, through the medium of light, is the peculiar

characteristic of the visual sense. We are, by nature, totally unconscious of possessing a retina, and equally unaware, when an object is seen, of its image existing at the bottom of the eye. Hence the faculty of vision ought never to be confounded with the sense of touch. All visible bodies appear in a right line of direction upon the point of the retina on which they are impressed, before the faculty exists of recognising distance. All the above problems of vision may be readily reduced to this well-known principle, which is, in reality, the peculiar characteristic of the ocular sense; but philosophers have not considered the effects as analogous, and resulting from a common or identical cause. Singleness of vision, and the inversion of optical images, are subjects which have ever been distinctly studied, and different theories adduced in explanation of each.

On Single and Double Vision.

In the above experiment we observed, that the distant object appeared single, while the axes of the eyes corresponded in direction; the near object appeared double. Now, as a reason why the distant object appears single, we may argue that the direction of an object must always be conceived with relation to the position of either of the eyes, independently of the other; and, therefore, for the same reason that the distant object appears single, the near object appears double. Repeat the experiment, and then close one of the eyes, and the image of the near object will of course appear on that side of the open eye at which it really exists; but reverse the eyes, i.e. close that which was open and open that which was shut, and the axes of the eyes, being still directed on a distant object, the near object will appear to change sides, and thus, as the eyes are open and shut alternately, the near object will appear to pass from right to left and from left to right. Now this is an illusion, but it is not connected with functional aberration, neither does the double conception, when both eyes are open, prove either eye in fault; on the contrary, the functions of either eye being wholly independent of the other, each truly represents the position of the object; but the object is held to the right of the axis of one eye and to the left of the axis of the other; and hence, as the *object is in reality* on two opposite sides, it must appear double. These arguments will apply in every example of double vision, however produced.

On the inverted position of the Image, with regard to the object.

Now the above explanation of single and double vision, is grounded on the fact, that the visible object appears in the line of direction from the image; this effect is the *sine qua non* of vision. It is for this reason, that if an animal were gifted with a thousand eyes, and their respective axes were truly adjusted to a visible object, and as many images correctly applied on their sensitive retinæ, singleness of vision would still be preserved, for it is plain, that only one image could be seen in the same direction. So, also, it is for the same reason, that when, as is seen in the above experiment, an image is found on the right side of the eye, it appears to the left, and *vice versa*. Again: the same law of direction which applies to the relative situations of objects with regard to the images, and to all the phenomena of single and double vision, will apply to every component part of any image *ad infinitum*. Hence we may perceive, not only the physical cause for the inversion of images, but also for the reverse disposition of their every individual part.

On the estimation of the size and figure of Bodies.

It is evident that the knowledge of the actual figure and magnitude of bodies cannot be conveyed to the novice in vision, through the medium of light. Nevertheless, it has been a question of dispute among the learned, whether a mere tyro in the visual art could distinguish the figures of surrounding bodies, as for example, whether they would know a convex from a flat surface, the bodies being considered, in other respects, equal. The true answer will be in the affirmative: he would certainly see a difference, but he could not appreciate the cause, neither could he tell which was the convex or which the plain object. So, also, he would judge rightly of their relative proportion, not only with regard to each other, but also with relation to surrounding objects if equally near; but of the proportions of promiscuous bodies, their relative and actual sizes and shapes, his conceptions would be utterly vague or fallacious; in a word, he would not be enabled to estimate distance, nor allow for its effects on the visual image; yet were it not for the inherent influence of the law of direction, experience could not teach us to estimate distance: not only duplicity of vision and inversion of objects would inevitably occur, but every object would appear of the same limited size, of the same actual figure, and in the same contiguous position as the image on the retina.

Here the writer may add, in conclusion, that some time ago he published other essays on the subject of vision, wherein he contended, that all objects which are seen beyond the point of distinct vision will always form their images at the same focal distance, and hence showed the non-neces-

sity of ocular adjustment. Other important points of optical physiology he also endeavoured to illustrate. Whatever have been the defects of his essays, the subject is one of ineffable interest, and not only so to the mere physiologist, but also to the general philosopher, and if it tend to involve the mind in metaphysical perplexities, it secures to the author the indulgence of the wise. Physiology is the noblest of sciences, and every department of animated nature teems with intellectual delight. All we behold is perfection and beauty, from the first simple dawn of vegetation, or vital evolution, to the glorious development of man. So also in each particular organ of the vitalised frame, we trace the operation of infallible laws. But the eye is an organ of pre-eminent interest, being no less beautiful in its structure than sublime in its functions: it is the greatest ornament of the being, and affords the greatest charms to existence. Like a mirror, it reflects every moral and every mental impression; to the soul it would seem a pavilion—to nature an universal oracle; and must ever be regarded with wonder and admiration.

T. Williams.

HOTEL-DIEU.

EXTENSIVE WOUND OF THE NECK.

On the 4th of April, 1829, a young man was admitted, who, on the day previous, had made an attempt to destroy himself by cutting his throat; the wound extended from one side of the neck to the other; both the carotids were laid bare, but had not been wounded; the sterno and thyro-hyoid muscles and the thryro-hyoid ligament were divided, so that the upper part of the larynx was distinctly seen; the air passed through the wound, and speech was completely suspended, but returned immediately on closing the wound. For the latter purpose four sutures were applied, so as not to unite the edges completely, but only to keep them near each other. The patient, who had before the act swallowed about a pint of brandy, was, at the time of his admission, apparently not intoxicated, but delirious. M. Dupuytren observed, that in wounds of this kind the use of sutures was generally considered as contra-indicated,* and that he, till within the last few years, had been of the same opinion; he had, however, seen so many cases of deep wounds of the neck, in which the free access of air to the wound, and the passage of the food through it, had caused the most violent inflammation and even danger of suffocation, so as to induce him to adopt an opposite plan; it will, moreover, he added, be found very difficult, if not impossible, to keep the edges of an extensive wound of the neck united by means of the bandage and position of the patient, as has hitherto been the general practice at the Hôtel-Dieu, which consisted in the application of a circular bandage round the chest and another round the head, united by strings, in such a manner as to keep the head drawn towards the chest, the thighs being, at the same time, kept bent upon the abdomen. This position, besides being extremely incommodious, is very often changed involuntarily, and can never be maintained in those cases where, as it often happens, the attempt at suicide is followed by delirium. These difficulties are obviated by the employment of sutures, which, however, M. Dupuytren remarked, it will be advisable not to draw too closely, in order to prevent the danger of an emphysematous swelling and the infiltration of the food.—*Lancette Française.*

* This was principally done by the authors of the Travaux de l'Académie Royale de Chirurgie.

ST. BARTHOLOMEW'S HOSPITAL.

SIMPLE, SUCCEEDED BY COMPOUND DISLOCATION FORWARDS, OF THE INFERIOR EXTREMITY OF THE TIBIA,

With Fracture of its posterior edge, Comminuted Fracture of the Fibula, Amputation of the Leg, and Death.

F. J. B. Lanigan, ætat. 53, was admitted, April 27th, into Harley's Ward, under the care of Mr. Earle, having sustained a severe injury to the parts connected with the right ancle-joint. States, that on the night of his admission, while walking along Cheapside, two men, *larking*, as he supposed, ran against him and knocked him off the pavement. As he fell, his right leg went under him, his ancle struck against the curb-stone, he was unable to get up and stand upon it, and accordingly was brought to the Hospital. On being admitted, there was found to be dislocation of the tibia forwards, and a comminuted fracture of the fibula. The muscles of the limb were acting spasmodically with great violence. The dislocation of the tibia was reduced, and the leg put up in splints. Twelve leeches to be applied to the part, and cold cloths.

28. Mr. Earle desired the splints to be removed, that he might examine the parts. The moment they were taken off, the spasmodic action of the muscles instantly dislocated the tibia again. Apply the splints again; leave the patient on his side; give

him hyd. sub. gr. iij., cum pulv. jal. gr. xviij.; take 18 ounces of blood from the arm, and admiuister 35 drops of the tincture of opium at bed time.

30. Let him have a compound senna draught immediately.

May 1. Feels rather feverish and restless. Take five grains of calomel, and half a grain of tartarised antimony immediately.

5. Last night was very restless; started up in his sleep, and not only again dislocated the tibia, but forced its extremity through the integuments, which had become thin and inclined to slough, thus making it compound. Inflammation and suppuration of the cellular tissue have taken place. The limb is considerably swelled; the muscles act spasmodically most powerfully, and the parts are in an extremely irritable condition. Mr. Earle has made an incision on the outside of the fibula, and also a small one in front of the tibia, at about the junction of its lower third, through which puss has been evacuated. It is with the utmost difficulty, when the reduction of the dislocated tibia is accomplished, that the end of the bone can be kept *in situ*. Mr. Earle wishes to remove the leg; and Messrs. Vincent and Lawrence, who have also seen it, concur in the propriety of proposing the operation. The patient refuses to submit to it. States, that there is nothing short of death that he will not cheerfully endure, rather than have the leg amputated. He is a native of Ireland, grey haired, rather of short stature, and of a somewhat spare habit. Has been an opulent merchant of considerable extent, but reduced in worldly circumstances by misfortunes. Of late has been gaining a livelihood as a tutor in private families. Since misfortunes overtook him, has been a hard drinker, and, indeed, was intoxicated when brought into the Hospital.

6. Still obstinately refuses to submit to the operation. Considerable œdema of the limb; inflammation not abated; great discharge from all the wounds; the spasmodic action of the muscles not in the least relaxed. Has this day been put upon one of the high fracture bedsteads, and the limb bound up in the most likely manner to command control over the action of the muscles, and keep the parts quiet. A poultice to be applied to the wounds, and cold cloths higher up the leg. Says he has a particular reason for objecting to amputation, but as that reason is a secret, he cannot disclose it.

8. The inflammation continues; sloughing going on; discharges freely. The inflammation does not seem disposed to extend up the leg. The integuments covering the muscles on the internal side of the leg more particularly, are actively sloughing. The pulse is good, and the tongue clean; rests well. The constitution is not suffering, and Mr. Earle is not now without hope. He is rather surprised that the constitution should not have begun to give way, but it seems to him, that the shock occasioned by serious mischief at the moment the injury is inflicted, is that which most generally proves destructive to the vital powers, as he has known several cases wherein the constitution, having been gradually prepared for extraordinary mischief, has borne up against it, whereas, had it occurred suddenly, it must have proved fatal.

10. The discharge from the different openings very profuse and offensive. There is still partial dislocation of the tibia, but which Mr. Earle, in the present condition of the patient, regards as unimportant. The action of the muscles appears to be now rather abated.

15. Diarrhœa came on a few days ago, which is continuing; the pulse is getting weaker, the tongue is brown, the suppurative process very active, and the discharge increasing in quantity. Has been informed, that the only chance of saving life is by getting rid of the limb, which he has at length consented to, therefore the operation is to be performed to morrow.

AMPUTATION.

At six minutes past one o'clock the patient was conveyed into the operating theatre, blindfolded, and upon the high bedstead on which he was placed on the 6th. When Mr. Stanley proceeded to apply the tourniquet, a soft swelling, about the size of a pullet's egg, was observed on the right groin. On being questioned respecting it, the patient said it frequently made its appearance, often disappeared, never produced any inconvenience, and was not to be attended to. At eleven minutes past one the operator commenced his circular incision, at from four to six inches below the knee. After the incision had been made, the integuments, particularly on the outer side over the fibula, from effusion of blood and the effects of subsided inflammation in the cellular tissue, were found closely adherent to the adjacent parts; Mr. Earle was, therefore, under the necessity of laying down his amputating knife and dissecting them back with a scalpel. This, with the subsequent division of the muscles, occupied three minutes. In ten minutes more the bones were sawn through, six vessels tied, and the stump covered over with the flap.

After cutting through the soft parts, they were not observed to retract, by any means, to the extent to which retraction is usual on such occasions; nor was that dexterity shown in their division which has been evinced by the operator in other amputations.

18. Two P.M. Since yesterday unfavourable symptoms have supervened. The patient has been restless and delirious during the night; his countenance is now pale and anxious; great oppression in breathing; cannot articulate but in a whisper; a tympanitic state of the abdomen; tongue brown in the middle; pulse 100; has been taking, occasionally, yesterday, through the night, and this morning, a little brandy and ammonia, but complains greatly of its making him sick and causing uneasiness in the stomach. On removing the dressings from the stump, not the slightest reparative process appears to be set up. Gangrene has attacked it at the outer edge, and where the adhesions of the integuments to the muscles were found to be firmest in the operation. A poultice, half bread and half linseed, to be laid over the stump. Mr. Earle suspects retention of urine from the state of the abdomen, and the patient now states, that formerly he was the subject of stricture of the urethra, but that it must be eleven years since he had an instrument passed. Mr. Earle has tried, for ten minutes, to pass a very small catheter, but cannot succeed; the prostate gland is very much enlarged and indurated. A false passage has some time ago been made into the bladder; the urethra is diseased. Not wishing to irritate more than is absolutely necessary, he has abandoned the attempt, requesting the dresser to watch narrowly the quantity of urine the patient may hereafter pass. He says he empties the bladder thoroughly and without difficulty. Ordered to continue taking brandy and ammonia, if possible.

Ten P.M. The breathing is less difficult, the pulse is much the same; he is more lively; he prefers table beer to brandy and water; he is occasionally rambling.

19, Eight A.M. The gangrenous appearance is rather extended; pulse weak, regular, and 94; tongue brown. Breathing again more difficult. Would only take the brandy and ammonia twice during the night. Entreats to have table beer in preference. Countenance anxious. No chance of recovery.

This morning Messrs. Earle and Stanley dissected the leg, when these appearances presented themselves:—the tibia dislocated forwards, with a small portion of its posterior edge fractured and retained *in situ*—considered perfectly novel. The fibula fractured into many pieces, and its extremity driven forward also, upon the astragulus. The internal latteral ligament in a sloughing state; the anterior capsule torn through; the cartilage of the upper surface of the astragulus absorbed. The external lateral ligament entire; the outer side of the fibula denuded of its periosteum for two inches and a half.

20. This morning, at a quarter past two, his sufferings were put an end to by that which he very much dreaded, death.

The sloughing and gangrene had extended to no considerable length, and the post-mortem examination elicited nothing particular. The liver was rather smaller and paler than usual, but healthy. The coats of the bladder very greatly thickened, and the urethra diseased: the organ empty.

REMOVAL OF CANCER OF THE LIP.

Samuel Goodyn, ætat. 63, was admitted into Darker's Ward, May 20, under the care of Mr. Earle, with an ulcerated cancerous affection of the lower lip. The patient, a brick-maker, a hardy, weather-beaten looking old man, states, that a very considerable time, as much as a year or two ago, the disease made its appearance in the form of a small pimple, and that it progressed slowly, till within the last two or three months. Since then it has become much larger and more inconvenient. It proceeds from the outer edge of the middle of the under lip, and extends down upon the parts covering the chin. The ulceration is about the length of, and broader than, an almond; the edges are indurated; the discharge very offensive, and the lancinating pains frequent. Has occasionally smoked, but never made it a habit. The glands under the chin are enlarged, one of them to the size of a damson. His general health is good, and he is willing to have the part removed with the knife.

23. Mr. Earle commenced the operation by making incisions downwards near to the angles of the lips, and in thirty seconds removed the whole affected portion. The edges of the wound he subsequently brought together by two hair-lip pins and one suture. One or two strips of adhesive plaster were laid over this, and the patient removed to bed.

After the operation, and the patient had been removed, Mr. Earle having cut open the removed portion and shown it, said to the gentlemen present, I owe it to you to make a few

Observations upon the Case.

The patient has considerable induration of the glands under the chin; and, therefore, it might appear to you that the operation has been undertaken improperly, the disease being a carcinomatous affection, in a state of ulceration, and it being well known that in many of these cases where the disease has extended to the glands in the neighbourhood, operations only put patients to unnecessary suffering—the cases terminating fatally. In the first place, however, as matter of expediency, it is desirable in some instances to obtain, in confirmed carcinoma, which sometimes, as on this occasion, is not

attended with very much suffering, the relief that is fairly to be expected from such an operation. In such case you institute a tractable for an intractable wound, and may often procure some years' relief. I would say, if that period of relief were considerably shorter, considering how much the patient's comfort is destroyed by the existence of the disease, I should conceive it right to perform such an operation as the present, and this even with the probability of the disease having extended to the neighbouring glands. But there are other circumstances that ought to be weighed. It has happened to me in many cases to have met this sort of disease upon the lip and prepuce, places where it is much exposed to irritation, and that irritation greatly increasing the malady. The case in which Mr. Lawrence operated last week, I may here observe, was one where the disease, I believe, began in the prepuce, and was afterwards greatly irritated by the flow of the urine. In such cases, the irritation induces hardness, and causes the affection to take on all the characters of carcinoma, without at all times being essentially true cancer. What I mean by that is, that many cases will do well by operation, and such, I trust, will be the result in the present instance, which you might be led to suppose were cases of true carcinoma, where the glands were diseased, and which would no doubt be fatal if allowed to go on. I have known cases where the glands have been enlarged at the time of the operation, but which afterwards became quiet, and subsided, the patients doing well. Many years ago a case of this kind happened to me, which I will relate, for I should be sorry that any one here should leave with an impression that I am anxious to perform operations that are not necessary, or that my example should lead any one else to such a line of conduct. A Mr. Webb, now residing at Blackheath, in the year 1816, came under my care for a similar affection of the lip to the one you have just seen. The affection there, however, had gone to a much greater extent; the diseased portion was hard and indurated around its edges, just like the present, but the angles of the lips were completely destroyed: it had all the characters of true carcinoma. The glands under the chin were enlarged to a great extent. He was between 60 and 70 years of age, and the case presented but very slight grounds of hope from an operation. I found, however, that though it would be necessary to take away an enormous portion, it would be possible to get the edges of the wound together, provided all the teeth in the lower jaw were removed, Nature having removed those of the upper. I proposed the operation, and he assented to it. I sent him to a dentist to get the teeth extracted, and requested him at the same time to take the opinion of other surgeons. Three of the most experienced surgeons to be met with negatived the operation. To his direct question they said they had nothing to propose, and that a painful death only could await him. He then determined to submit to the operation. Of course I performed it, assuring him that there was but a slight chance, and that if the wound did not heal, I should place him in a worse situation than that in which he stood before the operation. I removed an immense portion, applied four hair-lip pins, fed him through a hair-lip tube for 48 hours, and the case terminated well. The enlargement of the glands subsided, and he has never since had the slightest return of the disease. The disease was of that character which must have destroyed him, if it had been permitted to go on; so threatening was its appearance, that the very dentist to whom I sent him, refused to take out the teeth, and I had to do it myself. This, then, is an important case, the gentleman being now alive. I thought it right to trouble you with the narration, because I deem it right to explain why an operation is undertaken under circumstances like the present.

ENCYSTED TUMOUR.

Mr. Vincent next removed an encysted tumour, as large as a small orange, from the axillary side of the right mamma of a young woman; and having applied two or three ligatures, brought the edges of the wound together by sticking plaster.

EXCRESCENCE.

An excrescence, about the size of an ordinary marble, and of a warty or nævus nature, was next removed from the outside of the forearm of a muscular man, by the same operator. It was partly superficial, and partly subcutaneous. It had existed for many years; but within the last few months, by irritation, had enlarged and become exceedingly troublesome. It was described as a wart, but Mr. Stanley, on cutting into it after it was removed, considered it to have more of the nature of a nævus.

These operations were all neatly and quickly performed.

Mr. Chenevix went round the wards *magnetising*, as it was rumoured, some of the patients; but if it was intended to benefit the patients, it certainly was not meant to instruct the student. In every instance, Mr. Chenevix took the patient into one of the sister's rooms, and refused permission to any of the pupils to follow. This course was by no means relished by the students.

AMPUTATION OF THE KNEE.

Henry Herbert, ætat. 16, with dark eyes, dark complexioned and sallow appearance, was admitted under the care of Mr. Earle, Feb. 20, with disease of the left knee-joint. The disease had existed for three years. For some time past, abscesses in the neighbourhood have discharged considerably. Every attempt was made to save the leg. Of late, the patient's constitution had suffered. Diarrhœa supervened a few days before the operation, and it was at last deemed necessary that amputation should be resorted to. About one o'clock on Saturday last, Mr. Earle commenced the operation by making a circular incision through the integuments at the lower third of the thigh. Having dissected them back, he made another circular incision through the muscles, and dissecting them back also for a short distance, he divided the bone. After applying four ligatures, bringing the flap together, and rolling the stump, the boy was put to bed with one of the veins bleeding rather profusely.

AMPUTATION OF THE LEG.

—— Major, ætat. 11, a pupil at Christ's Hospital, fair haired, and of sallow complexion, was brought into the hospital on Saturday to have his right leg removed, in consequence of a diseased knee-joint. The boy had met with no accident; the disease was of twelve months standing, and supposed to be scrofulous. The opinion of all the surgeons was, that there was disease of the bone, and that it was a case for amputation, which Mr. Lloyd accordingly performed at the lower third of the thigh, by making a double horizontal flap of the integuments, then dissecting them back to the extent of about two inches round the thigh, beginning the elliptical incision on the inner half of the thigh, and making a circular cut through the muscles. The bone was then sawed through close to the divided muscles, leaving only the integuments to form the flap. Several vessels were tied, the stump was covered, the thigh rolled, and the patient put to bed.

The operation in each of the last two cases, was performed in two minutes.

GUY'S HOSPITAL.

REMOVAL OF A TUMOUR FROM THE BACK.

On Tuesday, May 26, Mr. Morgan removed an adipose tumour from the back of a middle-aged man, situated over the lower edge of the scapula. The first incision was made directly across the tumour, and a second from the middle of the first to the top of the swelling, in the shape of an inverted L; the integuments were then dissected back, and the tumour removed in about twenty-eight minutes.

LITHOTOMY.

Mr. Bransby Cooper addressed the pupils, informing them that he was about to operate for lithotomy on a man who was labouring under disease of the kidneys, and, as he believed, ulceration of the mucous membrane of the bladder, but that the operation was undertaken at the patient's own particular desire. The man was accordingly placed on the table, and sounded by Messrs. Cooper, Key, and Green, but no stone could be detected, and he was therefore taken to his bed.

On Tuesday, June 9th, Mr. Bransby Cooper performed the operation of lithotomy on a child, apparently about five years of age. Mr. Cooper stated previously, that although the child was unhealthy, and an unfavourable subject for the operation, it would not be proper to delay the operation longer, in consequence of the urgency of the symptoms. The child being laid on the table, and bound in the usual manner, Mr. Cooper introduced the straight staff, and having (with his two colleagues, Mr. Key and Mr. Morgan) ascertained the presence of a stone, the operation was commenced in the following manner:—An incision was first made with a common double-edged scalpel, to about two inches in length on the left side of the raphe, extending obliquely backwards, dividing the integuments and superficial fascia. Mr. Key holding the staff in his right hand, another incision in the same track, but not quite so long as the first, was the next step. Several smaller incisions were then made, and the finger and scalpel were observed alternately passing into and out of the wound with some apparent difficulty; the point of the scalpel at length found its way into the groove of the staff. Sir Astley Cooper's knife was next introduced, and the scalpel withdrawn. The operator then laid hold of the staff, and depressing it considerably, carried forwards the knife into the bladder; no gush of urine followed, which could be perceived by those who were at some distance from the operating table, but a great deal had passed by its natural course during the former part of the operation, previously to the opening being made through the perineum into the bladder. Having withdrawn the staff, &c., the short forceps were introduced into the bladder, but the attempt to extract the stone proved of no avail. Alternately they were removed, and the fore-finger introduced, and the ope-

rator seemed to evince some degree of impatience, until at length the long forceps were used, when a very large stone, of an oval shape, was extracted, seven minutes and a half occurring from the time of the first incision.

Mr. Key afterwards removed a large fatty tumour from the left axilla of a woman. The operation was very neatly and dexterously performed. It was not found necessary to secure any vessels, and the lips of the wound were merely brought together by strips of adhesive plaster.

ST. THOMAS'S HOSPITAL.

COMPOUND FRACTURE OF THE TIBIA AND FIBULA.

THOMAS HARMAN, admitted on May 16, at ten, A.M., into Jacob's Ward, No. 13, under the care of Mr. Green, with a compound fracture of the tibia and fibula, low down in the middle third, caused by a cart wheel crushing it against a post about six hours previously. The wound, which is just over the spine of the tibia, is about an inch and a half long, through which the upper portion of the bone protrudes, pressing the integuments into a fold beneath. Mr. Green having attended at about twelve o'clock, removed the projecting portion of bone in an oblique direction downwards and backwards with Hey's saw, observing that while the shortening of the bone rendered the reduction more easy, the oblique direction in which it was removed, would prevent the irritation which might otherwise be caused by the pressing of the integuments against the sharp edge of the tibia. The limb was then extended, and the reduction effected, without any great difficulty; after which the wound was dressed with a little lint dipped in the blood, and the limb put up in Amesbury's fracture apparatus, in such a manner as to keep up slight extension.

17. Has passed a good night, and is now free from pain. Bowels rather confined. Castor oil half an ounce.

18. Bowels freely operated on by the medicine yesterday, and have been moved once to day. Pulse 114, full. The leg hot, and there is a blush of inflammation extending some distance above and below the wound, which is sealed with blood. Complains of thirst; tongue white; says he is not in any pain.

19. Leg hot and swelled; blush extended; pulse 116, full; tongue white; thirst continues.

21. Has passed a restless night, but expresses himself as easier since the wound has been dressed. Inflammation and swelling extended as far as the knee above, and to the ancle and foot below, wound suppurating.

22. Been more tranquil during the night; heat and swelling less.

23. Inflammation much diminished, but there is still some heat and redness of the part; free from pain; bowels open; tongue whitish.

26. Much better in every respect, and has continued to do well ever since, excepting a slight attack of diarrhœa, which is now (June 2) yielding to the use of chalk and opium.

REMOVAL OF THE RIGHT LOBE OF THE THYROID GLAND.

THE first operation was for the removal of an enlarged gland (the thyroid) from the neck of Mary Gale, a young woman, twenty-four years of age. She had been in Guy's Hospital some months since, and had there taken iodyne to a large extent. The tumour is now, she says, much smaller than at that time, and the integuments are quite loose over it. On Friday, May 22, an operation having been determined on at her own desire, the patient was placed on the operating table. Soon after one o'clock, Mr. Green made the usual elliptical incision, and having dissected back the integuments, began dissecting out the tumour at its base, but several large arteries were divided, and obliged to be tied during the operation, and it was found impossible to remove the whole of the gland, on account of the large vessels in the neighbourhood; the operation lasted twenty minutes; the wound was dressed with dry lint.

23. Complains of headach, thirst, and pain in the neck; tongue coated, brown; pulse 102, small, and weak. Calomel three grains.

24. Has passed a tolerable night, and is free from headach; bowels rather confined; tongue brown and dry; has not any pain in the neck, except on swallowing; pulse 102, small. Common enema.

25. Has slept pretty comfortably, and does not complain of any pain; tongue still brown, but not so dry as yesterday; pulse 110, rather more full; wound rather sloughy. Calomel three grains; an effervescing draught every four hours; fever diet; a bread poultice to the wound.

26. Tongue more moist; free from pain. Mercury, with chalk, three grains; opium half a grain twice a day.

28. Going on well.

30. Has been restless during the night. Cough; thirst; pulse 106, small; bowels

open; ipecacuanha three grains every four hours; lotion of chloride of soda on lint under the poultice.

June 1. Free from pain; bowels open; wound looking healthy; arrow-root and milk.

3. Appetite improved; spirits good; bowels regular, and doing well in every respect.

June 4. Has been much disturbed during the night by the ravings of a woman delirious in the same ward. Is still restless, pulse 114, small, and rather sharp; bowels open; very weak. Take of

Mercury and chalk, three grains;
Opium, quarter of a grain.

Brandy, two ounces daily.

5. Granulations pale and flabby; difficulty of swallowing increased; tongue brown, dry, and cracked. Is annoyed by light; twitchings of the lower extremities; pulse very small.

Infusion of roses, one ounce and a half;
Tincture of henbane, 15 minims every six hours;
Port wine, ounce and a half. Fish.

6. At twelve A.M. delirious at times during the night. The twitching continues, and the disturbance at light. Heat of head; tongue brown and dry; pulse very small. Had a rigour at about four A.M.

Camphor mixture, one ounce and a half;
Carbonate of ammonia, five grains;
The black drop, four minims every four hours. Two eggs.

Port wine, four ounces daily. Beef tea.

Four P.M. Pulse 132, more full and incompressible; much heat of head; tongue parched. Mr. Green requested Dr. Roots to see her, who *recommended* the head to be shaved, leeches applied to the temples, the stimulating plan to be discontinued, and to take some of the mercury with chalk. Ordered four leeches to each temple; mercury, with chalk, five grains twice a-day; the port wine, &c. to be *rather increased*. She became much more quiet after the leeches had been applied, and slept pretty tolerably until about two A.M., when there appeared more difficulty of breathing; twitching of lower extremities returned with tremors, and the countenance became blue, but appeared to rally again for a time at twelve in the day. Being very irritable and delirious, the dresser ordered twelve leeches to the temples, but she did not experience any relief, and died in the evening in convulsions.

The portion of the gland removed was the right lobe of the thyroid.

TO CORRESPONDENTS.

Communications received from J. W. B.—Mr. Dewhurst—Mr. Alexander Stewart—R. G., Dublin—Mr. W. Smith—A Medical Pupil—An Apothecary's Apprentice—Mr. Thomas Williams—Σ.—H. J. G.—Mr. Litchfield—Mr. Clapperton.

We are obliged to Gulielmus, but his paper is not *quite* the thing.

Mr. Hood's work will have our attention at an early opportunity.

Several communications in hand will be inserted next week.

BOOKS RECEIVED FOR REVIEW.

The Influence of Climate in the Prevention and Cure of Chronic Diseases, more particularly of the Chest and Digestive Organs: comprising an Account of the principal Places resorted to by Invalids in England and the South of Europe; a comparative estimate of their respective merits in particular Diseases; and general Directions for Invalids while travelling and residing abroad. By James Clark, M.D., R.C.P.L., &c. London, T. and G. Underwood. 1829. 8vo. pp. 328.

On the Varieties of Deafness, and Diseases of the Ear, with proposed methods of relieving them. By William Wright, Surgeon-Aurist to the late Queen. London, Hurst. 1829. 8vo. pp. 295.

The Claims of Forensic Medicine, being the Introductory Lecture delivered in the University of London, May 11, 1829. By John Gordon Smith, M.D., Professor of Medical Jurisprudence. London, Taylor. 1829. pp. 28.

Observations on the Phrenological Development of Burke, Hare, and other atrocious Murderers, with Measurements of the Heads of notorious Thieves, presenting an extensive series of facts subversive of Phrenology. By Thomas Stone, Esq., Pres. Royal Med. Soc. Edinburgh, Buchanan. 1829. pp. 75.

An Essay on the Symptoms of Pregnancy, from the Earliest Stage to the Period of Quickening, &c. To which was awarded Dr. Hopkins's prize gold medal for 1829. By John Morley. London, Highley. 1829. pp. 48.

THE LANCET.

VOL. I.] LONDON, SATURDAY, DECEMBER 13. [1828-9.

LECTURES

ON THE

GRAVID UTERUS, AND ON THE DISEASES OF WOMEN AND CHILDREN.

DELIVERED AT GUY'S HOSPITAL BY

DR. BLUNDELL.

LECTURE VII.

IN general, I have said, animals are sexual, and vegetables hermaphrodite; but this is not constant. Animal hermaphrodites usually unite, and there is double impregnation; snails and worms are examples of this.

The perpetuation of the species, and the preservation of the individual, being, apparently, with the great Designer, objects of first interest, all living beings appear to be formed mentally and bodily, (if I may be allowed the expressions,) in relation to these great ends; and bearing these two principles in mind, we may comprehend much of the wherefore of a great deal which strikes the attention in the make, the instinct, the dispositions, and other qualities of living beings. The conspicuous changes which the system undergoes, in both sexes, at the age of puberty, is a subject of common observation; and the illustrious Harvey has described the metamorphosis, which changes the girlish form into the perfection of womanly grace and beauty, with a delicacy and a classic elegance, which may well deter his successors from the attempt. When vegetables propagate, they form their blossoms, and appear like animals, in all their dignity and glory. When insects prepare for the formation of the new structures, their previous changes are truly astonishing; the unsightly and unwieldy grub becomes decorated with all the colours and the splendours of insect elegance, and the butterfly, rising on new-formed pinions, so light and airy, that the poet and the artist have winged the soul with such—with its little heart full of gaiety and gladness, frolics forth in search of its companion, to perform its last office in the economy of nature, being often destined, like other victims of passion, to perish at the shrine. I believe it is agreed, on all hands, that the transformations of the larva into the winged insect, are, throughout the whole of this class, designed merely to adorn and fit them for the formation of the new structures; and nature, with something more than a quakerly attention to sobriety and decency, seems to have taken a pleasure in lavishly adorning the bridegroom and the bride.

Though one highly respects the worthy character of Dr. Denman, one cannot forbear smiling, when he speaks of the perpetual capability of producing, during the flourishing period of life, as a providential comfort, the peculiar blessing of our species—on which he seems to dwell with honest feelings of gratitude and complacency. In this remark of Denman, however, there is a great deal of truth. Human generation seems to know no annual variation; but animals and vegetables, almost all of them, after puberty, propagate at certain seasons only; in spring, summer, autumn, or winter, once or twice in the year, or oftener, and the genitals undergo a periodical development for the purpose. Although, however, that the human female has periodical aptitude may certainly be denied, yet I have sometimes thought that there is something genial in the spring-season, and we all know, that of the vernal months, May, perhaps, is the one which may put in the fairest claim to be the emblem of the blooming virgin.

When the genital system is once prepared, by numerous expedients, Nature, never at a loss, accomplishes the mixture of the two substances. She entices—she impels—she forces; in the instance of vegetables, she employs the ministry of intermediate agents; and a shower—or a breeze—or the busy flight of insects—accommodated perhaps, without being conscious of it, with some pretty contrivance, generated for this express purpose; these, and other accidents,

are, one way or other, furnishing our wise parent with the means by which she accomplishes an object all dear to her heart—the perpetuation of her living beings. Bees and butterflies are sad go-betweens.

When animals are divided into sexes, and perhaps under hermaphroditism too, nature brings the two parts of the genital apparatus together by means of impulses to which the human mind is no stranger, and the study of which in ourselves may, I think, serve to give us the best idea of the nature of those strange impulses in animals called instincts—impulses which drive an animal, by pain or pleasure, upon a course of action, without any regard to its end. Adam, according to our great poet, ruined the whole human race, his children, for the love of our first mother: this was pretty well. A frog, says Blumenbach, will continue to impregnate the ova, even after removal of its head: this is better still. The strength of the sexual necessity is, in some parts of animal nature, truly astonishing; nor is it weak in our own race. The emanation of love, a feeling so refined and delicate, from instincts so coarse and vehement, might remind the imaginative of the transformation of the evil spirit into the semblance of a beautiful angel; while the more sober and useful naturalist may probably bethink him of the metamorphosis of the caterpillar into the volatile and airy being to which it is indebted for its existence. It is by the touch, ear, and eyes, in part, that these feelings become excited among men, but principally, perhaps, by the eyes, (hence the advantage of being short-sighted,) for the graces do not find love blind; but when they bind, they bandage him. In animals, too, the ear and eye have their influence—*uritque videndo femina*; but in them the sexual instinct is brought into operation frequently by the action of a very different sense, in the males especially, and this sense is the smell.

In the agreeable fictions of mythology, Cupid, like Bacchus, is sometimes mounted on the tiger. Different beings are differently armed, and the bull has his horn, and the pole-cat his scent, and the viper his tooth, and the scribbler his slander. The fairer part of our species is, too, defended, but by a different weapon; and some two thousand years before the birth of Moore, Anacreon, in softened numbers, told to the world the irresistible influences of female beauty. The Indians, I am informed, can fascinate the most poisonous serpents; and rat-catchers, in our own country, it is well known, can wheedle these animals on to their destruction. The more knowing of these fellows will, I am told, lie at length on the floor, and, with some preliminary measures or other, bring all the vermin from their haunts about them. I have been told by Mr. Hallum, of a drummer, who, when he knew the haunt of a wild animal, (as the otter, for example,) he had a certain secret, by which he could, on lying near, bring the creature forth about his person, disarmed of much of its ferocity, and suffering itself to be hauled and handled with impunity. Like Daniel in the den, he seemed to possess a protection against brute violence: now, seducing as these fellows are to animals, so seducing our own females, if we are youthful and unguarded, may become to ourselves; and it was this reflection which first led me to think, what I feel persuaded will not be, hereafter, found erroneous—I mean, that the whole of this power depends upon sexual instincts. These influences, I conceive, contain within them the principle which fascinates the serpent—which seduces the rat—which tames, for a time, and equally, the otter or the tiger, and which, among our own species, has made both old and young play the fool in all ages—*nam fuit ante Helenam mulier teterrima belli causa.* Dinah first, and Helen afterwards. In the well known *Chanson*, "We all love," &c., a very great physiological truth is contained. Accordingly I have learnt, respecting the man above mentioned, that he was accustomed to get and keep by him, in some mode of preparation or other, the genitals and bladders of the females of different animals, during heat, and mixing this into a sort of pulp, he formed out of this mess the delicious sop by which Cerberus was tamed. "*Chacún à ses gouts.*" A putrid carcase is, to a blue-bottle fly, a bed of roses. Housebreakers, probably, silence dogs on these principles.

Rats are fond of oil of rhodium, and cats are delighted with the smell of valerian. I suspect when oils, &c., are used as irresistible baits to animals, it is because their smell resembles that of the sexes. In all this we may see a new and powerful system of means for getting a control over brutes, and, in a temporary way at least, of bending them to our will. Of all baits, I think, there can be no doubt that during the heat, and for male animals especially, none would prove so alluring and intoxicating as the sexual scents, and they might be artificially compounded. Galen and Rabelais knew something of this secret. But time forbids me to enlarge.

Signs of Pregnancy, and means of ascertaining the period when Gestation will close.

The most certain mode, gentlemen, of knowing whether a woman be in a state of gestation or not, is by waiting till the term of nine months is completed, when, unless the pregnancy be extra-uterine, or unless there occur some of those extraordinary and

rare prolongations which have sometimes been made the subject of physiological or forensic litigation, the uterus contain an ovum, it will be expelled. It not unfrequently happens, however, and I have met with such instances myself, that women, from various causes, are exceedingly anxious, in the earlier, or middle, or latter months, to know whether they are or not pregnant; and hence the accoucheur has been led to bring together a variety of signs, by which the decision of this question may be effected.

The indications of pregnancy, in number not a few, may be commodiously divided into three classes; of those, I mean, which are of ordinary occurrence; of those, again, which are rare, or anomalous; and of those, lastly, common indeed to all women, but which may be ascertained solely by means of a careful manual examination; and, first, we will consider those signs of more frequent occurrence, to be ascertained, in a great measure, from mere verbal inquiry. If a patient apply to me, anxious to know whether she is in a state of gestation or not, one of the first questions I propose is—have you any feeling of bearing, together with a sort of irritation about the bladder or the rectum, but more especially about the bladder? For, in consequence of the enlargement of the uterus, and of its descent into the pelvis, and of that increased action approaching to the inflammatory occurring in the womb and the parts contiguous, it not unfrequently happens, in the earlier months, that micturition, and some little obstruction of the bladder, together with bearings, are produced.

From a variety of causes, an enlargement of the lower limbs of the dropsical kind occurs; in some women especially, this enlargement, whether of the one or both limbs, is apt to be produced in the earlier or subsequent months of gestation. If, therefore, a patient suppose herself to be in the earlier months of pregnancy, you ought always to ascertain whether the lower limbs are œdematous or not; and if your patient, previously in good health, has this œdema of the lower limbs unexpectedly, and in considerable degree together, with the other signs of gestation, you may then consider this, too, as a sign indicative of pregnancy, and, indeed, as one of no small value.

It is obvious that you must not hastily conclude that a woman is pregnant, merely because she is attacked with vomitings and retchings in the mornings, inasmuch as these retchings and vomitings in women, as in ourselves, may be produced by a variety of other causes. Pregnancy occurring, however, women, perfectly well before, are sometimes seized with morning sickness, attended with retchings and vomitings; so that, during the greater part of the day, they are well enough, but when they rise, or even sit, in the morning, erect in the bed, if I may confide in reports, both retching and nausea are produced. In cases like these, a little mucus and gastric juice only are expelled from the stomach, and not an ill-digested chyme, this proving, apparently, that the disease is not to be ascribed to *dyspepsia*, but rather to gastric irritability. If, therefore, a woman, previously exposed to the cause of gestation, nor wanting the other signs, is seized suddenly with retchings, nausea, and vomitings, seizing her morning after morning when she quits her bed, or even when she takes the sedentary posture, there can be little doubt that all this is the result of gestation, and the sign becomes of no small value.

In the earlier months of gestation, say in the first two or three, when the embryo is small, as in some of the glasses on the table, the movements of the fœtus, of course, cannot be felt, but in the middle and latter months, when the fœtus becomes large and strong, its movements are readily perceived by the mother. Now, where the motions of a child are, as they frequently are throughout the whole of the pregnancy, obscure and infrequent, they become of small value, as an indication of pregnancy, even though the woman have had a large family, and though, judging from this symptom, she persuades herself that she is pregnant. I know an instance of a lady, possessing more than average intelligence, the mother of twelve children, who was led, by these abdominal movements, into an erroneous persuasion that she was pregnant again; for spasms of the abdominal muscles, and flutters of the bowels, may now and then be mistaken for the movements of a child. You ought, moreover, not to be ignorant that some women possess the power of stimulating the fœtal movements, by the action of the abdominal muscles, as I am informed, so exactly, that even an experienced accoucheur might be deceived. By women of intrigue, this piece of slight may be abused. A woman, who possessed considerable skill of this kind, formerly exhibited her talents in this town for hire; she was visited by Lowder, Mackenzie, and some other celebrated accoucheurs of the day, and, after satisfying themselves that the womb was not enlarged, they made the usual examination of the abdomen, when they all agreed, that the movement was so exactly analagous to that of a fœtus, that no distinction could be clearly made out; adding, that if no internal examination had been made, they should, judging from this only, have satisfied themselves that the woman was with child. Should it be your duty, then, to examine a woman, who not only has her rea-

sons for supposing that she is pregnant, but who finds her interest in this supposition, be on your guard against this simulation. These cases, however, are not frequent, and, in general, it is sufficient to recollect, that when the motions of the child are somewhat obscure, but little reliance is to be placed on them as a sign of pregnancy, even where women are perfectly honest; but where the child is very turbulent, and its motions are of consequence both frequent and violent, the sign becomes so strongly marked, and so decisive, that without looking any further, you may venture to infer that gestation is undoubtedly begun.

When women are pregnant, there is always, in the middle and latter months, an enlargement of the abdomen, greater where the hollow in the back is deep, less conspicuous when it is shallower—observed, however, in all when pregnant, more especially in the end of gestation. You are all aware, no doubt, that from a great variety of other causes than pregnancy, abdominal enlargement may be produced, so as to render this enlargement, to the inexperienced, a very uncertain sign; from air, from fat, from water, from a diseased growth of the viscera, an intumescence may arise, and the appearance of pregnancy may be deceptively produced. From the enlargement of the abdomen, however, the more expert accoucheur may often form a very just opinion as to whether the woman be pregnant or not, provided he proceed with due caution.

The form of the tumour, as observed by the eye, is of no small importance, and I would advise you to acquire, from observation, a correct idea of it; nor must we forget its situation, lying in front of the abdominal cavity, and occupying the lower and middle parts. Swellings from air, being very elastic, always yield under the continued pressure of the hand, and may be urged from one part of the abdomen to the other, and allow the fingers to sink deep upon the spine; but the intumescence of pregnancy is firm and unyielding. The intestines, too, frequently gurgle when the enlargement is from gas, and, though sometimes lasting for weeks together, tympanitis is frequently fugacious, appearing and vanishing in the compass of a few hours. Swellings from water undulate more or less distinctly when struck with the hand; but, unless there be a distended bladder, or a dropsical womb, in pregnancy, no fluctuation can be felt. An enlargement from fat is not topical, but diffuses itself over the whole body; in the limbs, face, and haunches, it may more especially be detected. The diseased and solid growth of the viscera is a work of much time, but the enlargement of pregnancy is rapid; so that we may often distinguish between the swellings which arise from these two causes, by ascertaining the time that they have been observed to subsist. In a word, mere abdominal intumescence is but an equivocal indication of pregnancy; but, by ascertaining its age, its firmness, its want of fluctuation, its seat in the abdominal cavity, and the form which it assumes, we may, in general, distinguish such swelling from those various morbid enlargements which arise from air, water, fat, or the diseased growth of the viscera, or from the operation of these causes combined.

After women have suckled, you cannot, in general, judge a subsequent pregnancy by the breast, but where they are pregnant for the first time, and, in general, it is then that they are most anxious for information—from the increase of the size of the breast, from a certain fulness and tenderness, and an approach to inflammation, and, now and then, from a secretion, of a fluid, serous, milky, or mixed character, you may form a notion whether gestation be or not begun. There are some women in whom, before pregnancy, the breasts are remarkably small, and whose breasts become twice or three times as large, or even larger, after gestation begins. Now, when these sudden enlargements, and other changes, supervene in first pregnancy, and this after the patient has been exposed to the cause of gestation, there can be little doubt that pregnancy is begun. You must not, however, hastily conclude that a woman is pregnant, merely because she has an enlargement of the breasts; she may be getting very corpulent after her marriage, and the breasts may be enlarging in common with the other parts of the body. Enlargement of this kind, however, is known easily enough, by the concomitant increase of the hips, face, and limbs. Again, you must not hastily infer that a woman is pregnant, merely because she has a good deal of uneasiness about the breasts; for, if she suspect pregnancy, and is often handling the mammæ, she may, in this manner, cause them to become irritable and tender, as, in young females, they frequently are prone to be; nay, secretion itself may thus be produced. Again, you should not infer there is pregnancy, merely because there is a secretion of milk. I remember a woman, in this hospital, who had milk in her breasts, and who had not had a child for three years, nor had she been suckling for a length of time before; yet in this woman, whom I examined, at the request of the officers of the hospital, the milk formed so copiously, that when the breast was pressed, the milk oozed freely forth; and yet I satisfied myself, most unequivocally, that she was not with child. In the Ethiopian variety of mankind, the genitals are very active; and my friend, Dr. Chapman,

gave me the case of a negress of Demerara, who, after her pregnancy, formed milk for twenty years together.

Again, about the age of five-and-forty, sterility supervenes, the catamenia ceasing to flow, and frequently, at this period, fulness, pain, and some enlargement of the breasts, take place; and therefore it is obviously necessary that the accoucheur should guard against delusion in these cases, and the rather, because it has repeatedly occurred. A woman, perhaps, marries at two-and-forty, and is anxious to have children; and the catamenia cease, and the abdomen becomes tympanitic, and the bosom is swelled and uneasy, and she supposes herself to be pregnant; and she engages her nurse, and she cozens her accoucheur, and she receives the gratulations of her friends; and she consults about caps and long petticoats; and she hopes it will be a boy; and she gets laughed at for her pains;—though I must add here, that I think the ridicule is a little unfeeling.

To bring my observations to a point here, if a woman have had no child before, if she have been exposed to impregnation—if she have also the other signs of gestation—if the breasts double their size—if the enlargement be knobular, and not from fat—if there be secretion, tenderness, pains, then the enlargement of the breasts is to be looked upon as a very valuable indication of pregnancy; but where the enlargement is obscure, when the patient is very corpulent; when the woman has suckled a large family, and the breasts have been brought under a great deal of action; when, again, the patient is about 45, the catamenia being likely to cease, and the breasts likely to sympathise with the cessation, the indications of the breast cannot be safely relied on. Some ladies remain at five-and-thirty for half a score of years or so. Time and tide wait for no man; but, with women, *c'est une autre affaire.*

If you examine the nipple in either sex, you will frequently find round it a discolouration of the skin, and this circular discolouration of the skin, sometimes distinguished by a rosy tint, and sometimes by its being of the same colour with the contiguous skin, but lighter, constitutes what is called the *areola,* a part which, in consequence of pregnancy, is liable to become changed, even from the first; for when a woman becomes pregnant, the areola may become broader and darker than it was before, and may, too, undergo, a complete change of colour, the rosy or cutaneous tint becoming converted into a coppery red, or a dark mahogany brown. The change of the areola I should recommend you to study with attention; and the best mode of studying this, is not by reading or hearing, but by inspecting for yourselves. When you are attending cases in town, for instance, I would recommend you to take every proper opportunity of examining the areola; this you may do, on many occasions, without much exposure of the bosom, and, moreover, you will have occasion often to notice the areola, when the child is applied to the breast. The changes of the areola I have studied with a good deal of attention, both for your advantage and my own, and I find that they may be distinguished into three varieties, numerically discriminated according to their degree. Now, when the alteration of the areola rises to the highest point; when this part becomes broad and dark, and embrowned in fullest measure, more especially when pale, before, perhaps, it changes to a deep brown, so dark, that it reminds one of the skin of the negro, the indication of the areola ought to have great weight, at least, in a first pregnancy. By this indication alone, pregnancy has been not infrequently detected. More than once I have thus discovered it myself; but, on the other hand, when the areola is changed in the first or second degree only, its indications are of little value. And when a woman has had a large family before, even though the areola be changed in fullest manner, no certain reliance can be placed upon the sign; for experience shows that the smaller changes are indecisive, and when there has been pregnancy before, it is difficult to decide whether changes in the highest degree are to be attributed to the operation of a fresh pregnancy, or the remaining effect of those which have preceded. To be short, the areola may, now and then, deceive, when you think that there is most cause to rely on it; but (allowance made for anomalies) if the change be in full degree—if there have been no pregnancy before—if the eye of the observer be experienced—if the other signs of gestation attend—the indications of the areola are deserving of a very confident reliance; not to add, that in many cases pregnancy may be detected by the areolar changes alone, and they have the advantage of manifesting themselves very early in gestation.

A girl, some years ago, I was requested to interrogate, and, upon examining the areola, I declared her to be pregnant; this she at first averred was impossible, but soon satisfied that I knew a little more about it than she was at first aware, she altered her tone, and three or four months afterwards, delivery occurred. In St. Thomas's Hospital, I was also requested to interrogate a woman; she resolutely denied her pregnancy, but the indications of the areola put the matter beyond doubt; and when I made an internal investigation, I could distinctly feel the head of the child through the uterus. The woman was delivered

within one or two months afterwards. I was once requested to interrogate a young lady of much talent and accomplishment, and great force of feeling. On examining the areola, I was at once convinced of her gestation, but as she denied the possibility, and would really have attested the throne of heaven and him that sits upon it, had I not entreated her to be silent; an internal examination was made, when I found the os uteri was opening, and the head of the child was distinctly observable; parturition afterwards taking place in the course of three or four days. I really once saw a woman actually in labour, who persisted, nevertheless, that she could not be pregnant; and it may not be amiss to remark here, once for all, that in points of this kind, the asseverations of the ladies ought to have no weight whatever; nor, indeed, when a denial is given, ought these asseverations to be called for, especially in the presence of a third person. Women seem to have a sort of instinctive feeling, that interrogations of this kind no man has a right to propose to them, and of consequence, that in answering such impertinence they may say, and with solemnity too, what they please. Are the ladies the only persons who tell grave falsehoods?

The seat of the areola is the rete mucosum, so that in removing the rete you remove the areola too. In one of these two breasts, the areola is conspicuous; but it is wanting in the other, for the rete mucosum has been abstracted.

Pregnancy occurring, the catamenia, or that periodical flow from the uterus which is observed every three or four weeks, is arrested; and I believe it is commonly from this sign that women judge for themselves whether they are in a state of gestation or not. The catamenia appearing month after month, on a certain day of the week, for commonly they appear every four weeks, the patient is exposed, at length, to the causes of gestation, when the catemenia cease to flow, and they infer that pregnancy is begun, nor is it often that they find themselves deceived. Recollect, however, that in judging of pregnancy from the retention or suppression of the catamenia, you must bear in mind the following considerations. In dubious cases, you must distinguish between the suppression of disease, and the suppression which is to be ascribed to gestation; the absence or the presence of the other signs will, in general, enable you to make your diagnosis here. It is to be remembered, too, that about the forty-fifth year the catamenia cease, independently of disease; earlier, however, in some women, and later in others. Now, at this time, as before intimated, there may be abdominal tympanitis, together with some enlargement and tenderness of the mammæ; so that in cases of this kind, where there is an enlargement of the abdomen, irritation of the breast, and suppression of the catamenia, the patient may deceive both herself and you. In dubious cases, manual examination alone may decide; but when this is improper, it is better to state frankly that the case is obscure—that a decisive opinion cannot be given—and that it is proper that the patient should not, in her hopes and confidence, too rashly commit herself with her friends, lest she become the subject of one of those ludicrous, yet painful disappointments, on which I before took occasion to remark.

Further. When a woman is pregnant, the cessation of the catamenia does not invariably occur, for amenorrhœa, though general in pregnancy, is not constant. A woman, supposing herself to be pregnant, asks whether gestation is possible, for it is added, the system is still regular. To such a query the answer is, that it is not only possible, but probable; for, notwithstanding what Denman has said to the contrary, I have myself known women in whom, during the first three or four months, the catamenia have continued to flow, though not in so large a quantity, nor so long, as if they were not pregnant; and, in rare cases, I am told, but I have not seen any such case myself, the catamenia may continue to flow up to the very last month. A gentleman, formerly associated with this class, related to me the case of a lady of considerable intelligence, who had had several children, and, in three or four of her pregnancies, the catamenia continued till the last month; in return—in kind—in every point, excepting the continuance and quantity, the flow was of the catamenial character. I need scarcely add that women, when pregnant, are liable to red appearances, which are not of the nature of the catamenia. So that, to bring our observations to a point here, amenorrhœa is, in general, a very valuable indication of pregnancy; but without pregnancy, amenorrhœa may occur; and although gestation is certain, the catamenia may still continue to flow during the first months more frequently, and, in some rare cases, perhaps, during the latter months too.

And thus much, then, respecting the first class of indications, those, I mean, of more frequent and general occurrence in pregnancy, and to be ascertained, in good measure, by mere verbal inquiry; the central irritation—the swelling of the legs—the morning irritability of the stomach—the movements of the fœtus—the abdominal intumescence—the mammary enlargement and secretions—the changes of the areola—and the cessation of the catamenia.

LECTURES

ON

MUSCULAR ACTION, AND ON THE CURE OF DEFORMITIES.

By Mr. SHELDRAKE.

On what are now called Gymnastic Exercises.

It is a peculiarity, and indeed a misfortune, to this country, that there frequently arise among us persons who produce something that they say is new, and which they likewise say is important, because they hope to make money by it. To realize this important subject, they adopt some high-sounding names, which, in ancient times, have, in the Latin or Greek languages, been applied to some important matters that were known and practised in those countries; the terms which have been thus adopted they apply to their own contrivances, and say that these contrivances are the same as those of the ancient Greeks or Romans, which they pretend have been revived by themselves.

One of the most remarkable of these revivals, or re-discoveries, which has lately been pressed into notice, is what has been called gymnastic exercises. If they are to be believed who have endeavoured to get them universally adopted, they are not only a revival of the gymnastics of the ancient Greeks and Romans, but have, in themselves, the power of giving to the human figure every perfection of which Nature is susceptible, and to the mind many perfections which cannot be so easily obtained in any other way, besides many other good qualities, that it will require more time than ought to be so employed to enumerate. All this is absurd, and would be ridiculous, if it did not tend to produce, and had not really been productive, of much serious mischief. The avowed object of those who have set these practices in motion is, to induce persons of every rank in society, and of each sex, to form clubs, or societies, in which the practice of these exercises shall be the general pursuit. Some such clubs have been formed among the lower orders of men; some gentlemen, I have been told, amuse themselves in similar pursuits, in places that are better suited to their rank in society than those gymnasia can be. To all this no objection can fairly be made, because, although the practices that are followed in such places are really productive of much injury, every one has an undoubted right to amuse himself in any way that he thinks proper; if, in the practice of these exercises, he gets a hernia, a broken leg, rib, or violent contusion, or luxation of any kind, he will have the satisfaction to reflect, that he procured it for himself, by practising what would be of no real use to him, and in which he had no occasion to employ himself at all.

But this encouragement has not been sufficient for the professors of gymnastics; they have attempted to establish schools for the instruction of young ladies, females of the superior classes of society, in the practice of these exercises; if they succeed in this, they will reduce their scholars, in point of personal accomplishments, to a level with the tumblers at Sadler's Wells, and other places of public amusement; this, I believe, no parent would willingly do; but, in their anxious wish to give their children what they intend to be accomplishments, they become the dupes of speculators, who, in all probability, not knowing what mischief they actually must produce, promise to do what they, in reality, cannot perform.—Many young ladies, I know, have been seriously injured by accidents that have happened in these schools; none of them have acquired the accomplishments which they sought to obtain, and some will, at a future period of their lives, be subjected to evils of great magnitude, in consequence of their engaging in these practices, which those who recommended them did not foresee.

I shall endeavour to point out these evils, and the causes that will produce them. In doing this I shall confine myself to an explanation of the facts which these professors of gymnastics say, in a triumphant manner, they intend to produce. As they take merit to themselves for these practices, which they believe to be meritorious, it will, of course, be understood that they actually do what they describe; and, in what I shall say upon this part of the subject, I shall confine myself to a true explanation of what I find written in one of their own tracts.

In one place, the writer, from whose tract I quote, has written:—"In such cases, the gymnast, from the acute perception of his eye, the flexibility of his joints, and superior strength of his muscles, it is easy to perceive, would have greatly the advantage."

Again:—"By the exercise we recommend, the joints are rendered *exceedingly flexible*, and the whole body active and agile. The want of agility is a common defect among almost all classes of people in England"!!!

The impudence, as well as falsehood, of this declaration, cannot easily be exceeded, and will be answered, most effectually, by refering to the opinion of Belidor, an eminent French engineer, in the service of Louis XIV. Belidor was employed in most, if not all, the great military works

of his sovereign, and has published an account of them; in that account, he regularly states, that the work of four English labourers is equal, in effect, to the work of six Frenchmen of the same class.

Again: this gymnastic writer says,—"The preliminary exercise, which may be termed the initiatory exercise, is for the purpose of *strengthening* and rendering *flexible* all the different joints of the body. This is what persons, unaccustomed to gymnastics, stand most in need of. We frequently meet with persons of great muscular strength, but who, from their habits of life, are so sluggish and unwieldy, that they know not how to exert it. To many, the positions of the joints required for leaping, darting, climbing, &c., are entirely new, or at least, by long disuse, have become extremely difficult. To effect the desirable object, therefore, of removing such defect, an object regarded as a preliminary so necessary in gymnastic exercises, the pupils are ranged in a line, at such distances that they can barely touch each other's finger with his extended arm. They then practice, after the example of their leader, every different flexure that the joints are capable of, viz., bending down on the toes till the knees nearly touch the ground, and rising therefrom slowly, without any assistance from the hands, holding the arm at full length, and rapidly whirling it in a circle, darting the fists forwards, and suddenly withdrawing them to the shoulder; and various other motions which the teacher may deem necessary to effectuate the desired object.

"Leaping ranks among the most excellent of the gymnastic exercises; it strengthens and gives elasticity to the feet, legs, knees, thighs, and indeed the whole frame; it braces every muscle, invigorates the courage, incredibly improves the faculty of measuring distances by the eye," &c. &c.

The passages that are now quoted prove, very effectually, that those who wrote them relied very much upon the credulity and want of knowledge in their readers, when they supposed that they could believe all that was told them about the wonderful effects that would be produced by their gymnastic exercises.

The truth, as it relates to these exercises, which are now called gymnastic, is, that they do not, in principle, or in any essential point of practice, differ from those practices by which the tumblers, those who dance, as it has been called, upon the slack rope, as well as those who, in less enlightened times, were called posture-masters, were taught the arts which they practised. These arts consisted in distorting such parts of their own persons, as they chose to subject to these practices, into such positions as it was quite impossible to give to the bodies of those who were not specially educated for such occupations. It is true that these persons obtained applause and money by their pursuits; it is true that, for the short time they were under public observation, they showed both strength and activity which could not be displayed by those who had not had the same education; but it is likewise true, that by constantly repeating these practices, the parties who indulge in them soon become debilitated, and irrevocably sink into decrepit old age.

This termination of the existence of rope-dancers, tumblers, and gymnasts, has been but little, if at all, known to the public, because the public neither know nor care any thing about what is offered to notice as a matter of amusement, after it is removed from observation; the persons who have been objects of attention for their powers in these occupations, pass into obscurity, but it is well known that, so long as they continue to live, they exist in a state of great debility. This is the necessary consequence of the practices by which they acquired the power of performing those feats which made them so remarkable, and upon this subject I shall mention such facts as have passed within my own knowledge.

I have seen a tumbling boy place his hands upon the ground, suddenly throw his heels into the air, and place them against a wall that was behind him, so that he might be said to stand upon his hands, with his head downwards, and his feet raised up in the air; while in this situation, he brought his feet lower and lower upon the wall, and, at the same time, carried his face nearer to the earth, till his spine resembled an arch, and, with his mouth, he took a piece of money from the ground, which was placed there for that purpose.

I saw another boy stand erect, and then gradually bend his head backwards till he passed it between his legs, and looked the spectator full in the face, while he was in that situation; he then gradually returned himself into his erect position.

To enable themselves to perform these feats, those boys must have repeatedly, and for a great length of time, strained themselves in the manner that I saw one of them do, by which they increased the contractible action of all the muscles of the back to such an extent, that they produced much extension of all the very strong ligaments which connect the different bones of the spine together. These ligaments are so strong, that while the body is in its natural state, they bear all the most violent actions to which men subject themselves without any inconvenience. All these alterations must be produced before the spine could be drawn into the circular form, which in one case I saw, and in the other I saw in pro-

gress towards the same state, which I believe the boy would, in the end, arrive at, if he continued to use the means which I saw him employ; but whether he did so I have no means of knowing.

Besides producing these alterations, they must have produced so much extension of the very strong ligaments, which connect the bodies of the vertebræ together, that while the spinal processes were, by this most unnatural practice, made to describe a circle, the bodies of the vertebræ were made to describe a circle that was larger than the other, by as much as the thickness of the whole vertebræ, bodies and all. This necessarily implies an extension of all the ligaments of the spine, to an extent that, as we have no opportunity of seeing, one is really unwilling to calculate. Moreover, there must have been extraordinary extension of all the abdominal muscles, in proportion as the contractile action of the muscles of the back was increased; and, as the performers were able to place themselves in, and remove themselves from, the extraordinary and unnatural attitudes in which they had chosen to place themselves, by the action of their own muscles, without any extraneous assistance, and entirely by their own personal exertions, it is certain that they had acquired great strength, flexibility, and activity. These are the qualities which the people who teach these gymnastic exercises pique themselves upon communicating to their pupils; and it is also to be observed, that they teach them by the very same means, viz., by bending themselves "slowly and forcibly down, till their knees nearly touch the ground, and rising therefrom slowly without any assistance from the hands, and by these means giving every different flexion of which the joints are capable."

As the exercises of these gymnasts, and the means by which they are taught to practise their feats of activity, are now identified with the exercises and means in which the tumblers, and other persons of a similar description, use to instruct their pupils, it remains to show what effects are ultimately produced, and must be produced, upon those who practise them. To do this effectually, it will be necessary to inquire into the structure and uses of different parts of the body. Those who are acquainted with the subject know that the bones are the solid basis upon which the whole depends. The ligaments connect the bones with each other, and are so proportioned to the bones which they unite, that they allow to each joint so much motion as is necessary to what may, properly, be called its *natural action*, AND NO MORE. The ligaments are, in their own nature, said to be inelastic, but have, in reality, a limited degree of elasticity, which adapts them to their natural functions; so that, while they are in their natural, healthy state, and duly proportioned to the bones which they connect, they preserve those joints in what may be called their natural condition, and they are capable of performing all the functions for which Nature intended them. These ligaments, when they are forcibly strained beyond the point to which Nature has limitted their action, pass into a state of high inflammation, and then always become painful, often dangerous, as they know, by experience, who meet with violent sprains, and other accidents of a similar nature.

When these ligaments are acted upon by very gentle means, they extend very slowly, and without pain; but, having little elasticity, they do not again retract, but remain in the state to which they have been unnaturally extended. This peculiar property of the capsular ligaments has been discovered by the people who practise or teach tumbling, and similar exercises, as well as by those who teach these gymnastic exercises, though none of them know the cause or the consequence of what they do; and pique themselves upon the great *flexibility* which they give to the joints of their scholars, which, before they became scholars, were stiff and rigid. The muscles are the powers by which all the actions of the body are performed: their powers may be increased by exercise, and injured by it when carried to excess. In the muscles, as well as in other parts, there are certain proportions between the size and strength of the muscles, and the uses to which they should naturally be applied. This strength may, by proper exercise, be increased to a certain extent, but, if carried beyond that, becomes debility, and injures the party that uses it. When a man, whose members, and all their parts, are in a healthy, natural state, takes so much exercise as produces fatigue, he lays down to rest, and recovers himself, because the cessation of action allows all the parts to recover their *natural tone*.

This may be called the natural state of man; it continues so long as he remains in youth and in health, diminishes gradually as age and decay approach, when he finally sinks into his grave. This is the state of man when his life has been active, his body healthy, and his exertions natural; but the case is very different with all tumblers, posture-masters, or people who practise what are called gymnastic exercises: by their preparatory exercises, as they call them, they acquire a certain portion of muscular strength; they overstretch the capsular ligaments; and thus produce *that great degree of flexibility in the joints*, which the writer, from whom I have quoted, piques himself upon producing; although it is evi-

dently without knowing that great flexibility becomes mischievous debility, which will entail lasting misery upon his scholars, at a future period of their lives.

Those who are competent to understand the subject, will perceive that, so long as the muscles retain their full strength, they are able to support the scholar under the exercises he is engaged in, but, when the muscles become weak, the joints are deprived of the extraneous support they had derived from the muscles; they have lost the support they naturally and originally had from their own natural structure and strength, and are no longer able to support themselves under their natural exercise; their debility increases, and goes on increasing, till positive lameness ensues, and permanent ill health presses the patients, in their latter days, into a very miserable existence. Of this, many examples have happened within my own knowledge, particularly among those who were connected with a certain class of theatrical performances. The changes that take place in these amusements, remove some performances out of sight, at some times, which, at others, are very much followed. This is the case with tumbling, rope-dancing, and analogous pursuits. Several years ago these were favourite amusements, though now but seldom seen.

The most remarkable person of that class, in his day, was Delphini; he was a native of Venice, and had been a gondolier there. Those people, during the Carnival, and on other occasions, employ themselves in practising feats of strength and activity, to amuse themselves and their countrymen. Delphini became so eminent in these pursuits, that he relinquished his gondola, and betook himself to the stage: he came to England about sixty years ago, and was employed for several years, both at the Opera House and at Drury Lane, as a buffo performer, and was, in every respect, the most eminent performer of that kind in his day. He was the strongest man that I have known, and, in his business, exhibited many feats which no other actor could then perform. After he had been long upon the stage, a nobleman, to whom he rendered himself serviceable, gave him something which enabled him to live without continuing his occupation, and he returned into private life. The last time I saw him was about 40 years ago; he was walking in the streets; he was so much debilitated, that he could scarcely place one foot before the other, and had every appearance of being in the last stage of existence. I believed he was dead, and always thought of him as one who had been destroyed by his professional exertions, till I was surprised, by reading in the newspapers, during the present year, that Delphini died a few days before, at his lodgings in Lancaster Court, in the Strand, in the *ninety-ninth year of his age!*

That he should have lived *so* long, is to be taken as a proof that his stamina was good, and that his occupation, though it diminished his health and strength, had no direct tendency to shorten his life; the last forty or fifty years of which he must have lived in a state that rendered life itself a wearisome burden to him,

The next person I shall mention is Grimaldi, who must be remembered by most of those who hear me; he acted the clown, and other pantomimical characters, at Drury Lane, and other theatres. He had a frame that was like the body of Hercules, and strength that was equal to it, besides more activity than any other performer of the same description that existed in his time. Four years ago he quitted the stage, in consequence of being rendered incapable of following his occupation, by the total failure of his personal powers; and on June 30, in the present year, he had a benefit at Drury Lane Theatre, in which he performed for the last time. The entertainment consisted of a selection of popular scenes from the most approved comic pantomimes, in only one of which scenes he performed,—the scene a barber's shop,—from the pantomime called The Magic Fire, in which he played the clown. To the performance of that part he was led on by Mr. Harley, and was received with shouts of applause. He was much affected; but, though evidently labouring under great bodily infirmity, he bore up stiffly against it, and went through the scene with so much humour, that the audience laughed as heartily as of old, and were so delighted with his song, that there was a very general call for its repetition. He was too much exhausted to obey this call immediately, and was, eventually, allowed to retire without repeating it. The other performances then went on, and, at their close, he came forward, and addressed the audidience in the following speech:—

"Ladies and Gentlemen,—I appear before you for the last time. I need not assure you of the sad regret with which I say it; but sickness and infirmity have come upon me, and I can no longer wear the motley. Four years ago I jumped my last jump, filched my last custard, and ate my last sausage. I cannot describe the pleasure I felt on once more assuming my cap and bells to-night; that dress in which I have so often been made happy in your applause, and as I stripped them off, I fancied that they seemed to cleave to me. I am not so rich a man as I was, when I was basking in your favour formerly; for then I had always a fowl in one pocket, and sauce for it in the other. I thank you for the benevolence that has

brought you here to assist your old and faithful servant in his premature decline. Eight-and-forty years have not yet passed over my head, and I am sinking fast. I now stand worse on my legs than I used to do on my head; but I suppose I am paying the penalty of the course I pursued all my life; my desire and anxiety to merit your favour has excited me to more exertion than my constitution would bear, and, like vaulting ambition, I have overleaped myself. Ladies and Gentlemen, I must hasten to bid you farewell; but the pain I feel in doing so is assuaged, by seeing before me a disproof of the old adage, that favourites have no friends. Ladies and Gentlemen, may you and yours ever enjoy the blessings of health, is the fervent wish of Joe Grimaldi. Farewell, farewell." *

He was then led off the stage by his son and Mr. Harley, amidst loud cheers, and other marks of applause from the audience.

The premature termination of the professional career of two men who were eminent in their department, may be justly considered as a striking proof of the injuries which *they* will sustain who devote themselves to the injurious practices which have been so improperly recommended to general notice as healthy exercises. The persons who teach these exercises, and have a strong interest in keeping up the delusion that has been created in their favour, may say, that the examples which I have produced of Delphini and Grimaldi, do not prove that *all* the persons who practise these exercises, meet with the same fate as those two unfortunate performers. God forbid that they should! The lesson that I mean to inculcate, and hope that I shall press home to the conviction of those who attend to me, is, that these exercises are, in their very nature, calculated to produce these effects; and actually will produce them in every case, in proportion to the frequency with which they use them, and the extent to which the practice is carried. Having said *so* much upon this part of the subject, I will add nothing more upon *that*, as persons who choose to amuse themselves in those exercises are masters of their own persons, and at liberty to use them as they please; but I have another duty to perform, which I shall now proceed to execute according to the best of my ability.

When persons undertake to educate children, even if they are not their own, it is incumbent upon them to be careful that they do not, with the intention of instructing them in what can, at best, be but an amusement, or accomplishment, inflict upon them evils which may, and very frequently *will*, be injurious to them, in the course of their future lives. In mere instructors, whose only object is to obtain payment for what they communicate, it is a high moral duty to do this; but in parents, who, in addition to this motive, have the more powerful stimulus of affection, which prompts them to seek the lasting welfare of their children, it is a still more important duty. To all such I say most earnestly, that the practice of these exercises is, and always must be, highly dangerous to children of every age; if they escape from visible injury while they are receiving instructions, or shortly afterwards, in the decline of life they will pass into a premature and debilitated old age; because, giving to the joints that great flexibility which the writer of the passage I have quoted, boasts that it is the great object to give, and professes that they have been eminently successful in communicating, is the very worst thing that can be done. It destroys the natural firmness of the capsular ligaments, which should, under all circumstances, be carefully preserved, to secure the power of using the limbs to the best advantage, in every situation of life: when that power is wanting, a very trifling degree of extra exercise, acting upon the debility that already exists, will render it permanent; every additional quantity of exercise will increase the debility, and, in this manner, it will go on until positive deformity is produced to a great extent, as well as lameness, which will be constantly on the increase, till it becomes, at last, quite incurable.

Many other practices, besides the gymnastic exercises, as they are called, will produce the same kind of lameness: I will, at present, only mention one; that is, the practice of putting children to stand or to sit in stocks, which very commonly produces these very serious distortions. No man knows better than I do, the extent and quantity of mischief that has been produced in this way, because much of my time has been employed in curing such defects; and I have persuaded myself that I shall render an acceptable service, by producing, on this occasion, an authentic specimen, to show the extent to which mischief has been produced, sometimes by accident, and very frequently by the gymnastic exercises, or their consequences.

A young lady, whose friends lived at a distance from London, was sent to a day-school in the village where they resided, when she was old enough to begin her education. The school was at a considerable distance from the residence of her parents, and she walked to and from it daily, as often as it was necessary for her to do so. After she had done so for some time, she was perceived to limp in walking; this pe-

* See *The Times* newspaper.

culiarity continued to increase in one of her feet; the inner ancle sunk nearer and nearer to the ground, till, at last, she stood entirely upon it, and the sole of her foot turned outwards towards the right side, and the bones of her leg bent directly forwards at the lower part: as no time was known when this peculiarity began, as its progress was insidiously gradual, and produced no pain at any time, and no suddenly striking effect, it was suffered to go on unchecked, till the child was eight years old. At this time the foot had no power of acting in any manner in obedience to the will; but when she raised her leg from the ground, the foot dropped useless in any direction that accident permitted it to fall.

As the child's foot had never been in a state to require surgical assistance, it had been neglected till thus late in the day; it was said to be a pity that she should be suffered to go lame all her life, and I was asked to attempt to cure it: I did undertake and perfected the cure so completely, that she acquired the perfect form and complete use of her leg, so that no one could perceive it had ever been defective, but it required the constant attention of three years to effect this. It was fortunate for this young lady, that even by this great exertion she could be and was restored to enjoy a comfortable existence for the rest of her days; it is equally fortunate for others who may pass into the same situation, that they may be rescued in their turn; but it will be much more prudent, if those who superintend their education, will preserve them from falling into such misfortunes, by preventing them from practising those pretended gymnastic exercises, and several others that may be equally pernicious.*

Those who teach these exercises have employed several very shallow artifices to get them adopted in general practice. The most shallow and the most unfounded of these artifices has been, to identify them with the exercises that were practised in should be understood, I will endeavour to the gymnasia of the Greeks, and they have succeeded in giving them the same name. To the exercises of the Greeks these modern practices have not the least resemblance, either in appearance or effect. As it is of some consequence that this fact show what the Grecian gymnastic exercises actually were.

The ancient Greeks were the most extraordinary people of whom we have any actual knowledge: they pretended that they were aborigines; sprung, like plants, from the earth on which they lived; and they asserted that they, themselves, had invented whatever they practised or knew; the real truth is, that they adopted whatever they saw was useful from all the people with whom they had any intercourse; they reflected upon, and altered what they adopted, till they made it their own, and so far, indeed, may be said to have invented it.

The state of civilization, when the Grecian republics were formed, was such, that wars were very frequent among them; treaties were easily made, and as easily broken, so that no people could be certain that they should be in safety for any length of time. This condition of the people made it necessary that all should be qualified, either for aggression or defence; hence arose the custom of making every male native of all the nations of Greece, acquainted with the use of arms, and every exercise that was connected with military pursuits. In order to do this in the most effectual manner, gymnasia were established in every city, or other places, in Greece, in which the people resided together; these were places in which all the exercises that could be useful were taught; and the study was followed with so much earnestness, that children were led to them as soon as they could walk; they were then taught such gentle exercises as were adapted to their tender years; as they advanced in life, their exercises were increased in power, and as they approached to manhood, raised to the full height to which the active powers of man could be carried, till they entered into active life, fully qualified to do whatever they might afterwards be called upon to perform.

As an auxiliary to stimulate all classes of people to arrive at excellence in these exercises, prizes were established for the competition of the several classes: these prizes were contended for so frequently, and with so much energy, that children of the ages of eight, ten, or twelve years, gained prizes in the olympic games. These, and similar festivals, occurred so frequently in Greece, that it was recorded of one candidate, he gained prizes twelve hundred times in the course of his life.

By these practices, which were either for use, for pleasure, or to gratify the ambition of those who acquired honour among their countrymen, by excelling in these exercises, the forms and the muscular powers of the male Grecians were carried to the highest degree of perfection. The females were prompted to acquire muscular perfection, by pursuing a different course.

The Greeks were a religious people, according to the notions which they entertained of religion. Their religion consisted in festivals in honour of their different divinities, in sacrifices to those divinities, and in processions to the temples in which they were worshipped. In these processions, all

* See THE LANCET, Vol. II. p. 718.

well-born Grecian females bore a distinguished part. To lead, or to bear a distinguished part in a religious procession, was an honour that was competed for with the greatest energy.

Dances were an essential part in all these religious ceremonies; and to acquire the power of performing these dances, the young females attended the gymnasia, where they were taught, with as much anxiety, and as much constancy, as the males who attended to acquire a knowledge of their military exercises; and the consequence was, that each sex attained perfection in its own peculiar exercises. The females practised their dances, and other exercises, constantly, with a desire to arrive at excellence, because their festivals were frequent; and on the approach of each, the necessary arrangements for it were made, by choosing those who were most eminently skilled in the exercises that were requisite to fill the different parts at that time; hence it followed, that to fill a distinguished part in a religious processfon, proved the possession of superior beauty, elegance, and other accomplishments. As this right was strenuously contended for on every return of the festival, a constant stimulus was kept up by those who last enjoyed it, to keep, and by all others to get possession of it; the anxiety to acquire the highest degree of perfection in these exercises, produced an emulation, of which we cannot, at this time, form a just opinion.

The Olympic games were celebrated once in four years; the Nemean, Istryan and Pythian games, were celebrated at different times, so that the celebration of them should not interfere with each other, for a desire to attend them all was common to all the inhabitants of Greece; because there they saw these exercises practised in the highest perfection, besides every thing else that was most interesting in every art then known in Greece.

Besides these great festivals, every Grecian city had lesser festivals of its own, in which the same practices were followed with equal energy, but not in the same degree. Each city had its own gymnasium, in which the same exercises were taught and practised with the same care, and the same constancy; attention to them was an important portion of the great business of every person's life; first as a pupil to learn; next as an adept to practise; and, in the end, as a spectator, interested in the success of those who were rising into notice as he was on the decline; and as all this was connected with the feelings of *their* religion, it produced something more like an universal passion in favour of their gymnastic exercises than any thing that can now be seen, or even imagined. Compared with the effects of these exercises, what can be said of those to which the same name has now been given? their best quality is that they are the tricks of tumblers, calculated to amuse the inmates of a public house; their truest description is that they must produce lasting injury to the persons of all who engage in the practice of them, and, therefore, it is hoped they will be avoided by all those who wish well to the rising generation.

I have now endeavoured only to show the bad effects that are, and must be, produced by the practices that have been described; in future discourses, I shall endeavour to show by what practices the strength and agility which, it is pretended, may be acquired by these exercises, may in reality be produced.

CROUP.

To the Editor of THE LANCET.

SIR,—I have seen so many fatal cases of croup, and have tried the same ineffectual remedies which you will see were applied in the case now sent, (with the assistance of blistering,) that I determined to trouble you with the next I should meet with. Provided you think it worthy a place in your valuable Journal, I shall be very proud of its insertion, and to know whether I could possibly have adopted a more efficacious plan.*

I am, Sir,
Your most obedient servant,
JOHN EMMERSON.

Worsley, October 25th, 1828.

On Thursday morning, at ten o'clock, I was called to R. R.'s son, a fine robust child, near three years old, who was labouring under an attack of croup; he had had a cough and hoarseness some days before, which were not much noticed by the parents. I found his breathing hurried and rattling; cough shrill, but not frequent; expectoration purulent; pulse 160; skin moist; bowels open. I immediately bled him to three ounces; had six leeches applied to the breast; put him into a warm bath for a quarter of an hour, had him taken out, wiped, and wrapped in warm blankets; and gave him ten grains of pulv. ipecac. in a little warm water, and to drink freely of warm water afterwards. This not acting immediately, I got, from the house of a lady in the neighbourhood, an ounce mixture of vin. antimonial et vin. ipecac. aa. ʒss., and gave

* We shall offer a few practical remarks on *Croup* in an early Number.—ED. L.

him a teaspoonful every ten minutes, till it produced free vomiting; he took it all. He had an enema administered. I now sent him down a mixture of antim. tart. gr. j. aq. puræ ℥j., to take a teaspoonful every three hours; this produced a good deal of nausea, and once or twice vomiting, with profuse sweating. I saw him again in the evening; much the same as in the morning. I again took away three ounces of blood, and gave him pulv. jalap, gr. xv. in a little water; the bowels were purged the following morning twice, about six o'clock. Friday morning, ten o'clock. He appears much worse in every respect; the face is pale and ghastly; his breathing is very laborious, and he is very restless. I then determined, as a last resource, to give him calomel, gr. iij. every third hour. He took one dose, but died at half-past three o'clock in the afternoon.

QUACKERY IN NORTHUMBERLAND.

To the Editor of The Lancet.

Sir,—I have great pleasure in learning, from a late Number of your valuable Journal, that a surgeon, in the North Riding of Yorkshire, has taken up the subject of quackery which has of late attained so great a height in the north of England.

I do not intend (at this time at least) to enter into any details of the great extent to which this unlawful system has been carried, but from the increasing evils which daily arise from it in this part of the country, I hope to be the means of prompting some older and more able practitioner to take the subject in hand. Few countries, if any, I believe, are more cursed with bone-setters, and such like, than the county of Northumberland; and I have often wondered that no one has attempted to put a stop to such a system before this time. These empty braggarts, it is well known, take all accidents under their care; and we have many proofs, many serious proofs, that the greater part which fall under their hands are discharged with such limbs, and such specimens of treatment, that any pupil who had only been six months in the profession would be ashamed to look at them.

The medical men of Blythe I would now directly call upon to support that dignity which their profession demands, and annihilate those illiterate "fungi" which have so lately sprouted up among them: it is well known in the county that one of these (lately deceased) after having served an apprenticeship to a linen-draper, commenced in that town, and that, during his lifetime, people, out of number, crowded to his house—that since his death, a young relative, considering himself due heir to his practice, having placed the word 'Surgeon' on his door, has commenced with all the confidence of a medical man of fifty years' standing, to the great injury of the regular practitioner, and still more so to the poor suffering individuals who fall under his care: the same also may be said of several other towns and villages in the county. Hoping then that some means may soon be employed to improve the state of the medical profession in this county,

I have the honour to be, Sir,
Yours most respectfully,
A Surgeon-Apothecary.

Newcastle, Oct. 1, 1828.

PHRENOLOGY.

To the Editor of The Lancet.

Sir,—I am induced to notice the article of your Birmingham correspondent, not because it contains any very new or very powerful objections to phrenology; but because some of your readers who know nothing of the subject may be prejudiced by assertions which are allowed to remain uncontradicted. Though, like a late statesman, he is not easily answered, from the difficulty of finding the strong point of his argument—"no man knows where to have him." I hope to induce your non-phrenological readers to seek the opinions of phrenologists in their own works, not in those of their opponents, to examine for themselves, taking nothing on trust; and if they do so, we are not afraid of the result.

The first paragraph of Δ's article contains the common accusation of quackery, which, as it is merely an assertion, may be met with a denial, and calling upon him to produce his evidence. I would, however, suggest that if, as he says, and I believe, the present age is so superior to those which have preceded it in scientific and metaphysical accuracy, the time was ill chosen for founding a delusive science, and that the gradual, but steady, progress of phrenology, from its discovery to the present moment, affords a fair inference that it does not deserve to be classed with alchemy, and the other follies, which, as Δ truly says, would consign their professors to merited contempt.

If when Δ says it is impossible, from circumstances of uncontrollable force, to trace the connection between the developments of the brain and mental emotions, and intellectual operations, he means that we cannot observe any physical connexion, I admit that he is right, and no phrenologist

ever maintained the contrary; but if he will, with Dr. Brown, whose excellent work he subsequently quotes, understand the cause to signify universal antecedence, and effect universal succession, I deny the impossibility, and confidently appeal to the numerous facts clearly before the public. If "any one of the various and blended emotions by which the mind of man is liable to be agitated, may give rise to any conceivable action, or train of actions," then there is an objection, not merely fatal to phrenology, but to the science of mind altogether; but how an emotion of benevolence can give rise to murder, or one of hatred to an act of kindness, must be left for him to explain.

But the point to which I principally object is his description of the operations of the phrenologist. "Taking it for granted," says he, "that his general doctrine is correct, and that the mental affections are indicated by certain elevations of the brain," &c.

Now, Sir, your correspondent knows something of the matter, or he does not. If he does, he must be aware that a peculiar development in some of his schoolfellows, induced Gall, when a boy, to examine the skulls of persons of marked character, and that no organ was stated as ascertained till many cases concurred to prove, and none to controvert it. If he knew this, he has misrepresented, and if he did not, he ought not to have written upon a subject of which he was wholly ignorant. All which the phrenologist "finds, or pretends to find," are certain elevations which, having been found in every examined skull of persons who have been distinguished for any peculiarity of character, he believes to be indicative of similar character in the individual under examination; and he thinks it hard, when he appeals to facts, to show that a thing *is* to be met with arguments *a priori*, to show that it *cannot be*, and still harder to find any attention given to unsupported assertions that it *is not*. Most of your readers, I presume, have profited enough by observation (whether phrenological or not) to form a tolerably correct notion of the characters of those with whom they are in the habit of frequent intercourse; though I shall not be so rude as to contradict Δ, by affirming that to him, "after very protracted observation, even a loose conception is more than barely possible."

All phrenologist sadmit the influence of mixed motives, and the very nomenclature shows that it is one of the most important parts of their science. All admit the influence of education in the formation of character, and of circumstances in directing our actions. They do not pretend from an inspection of the head to say what events have brought the mind to its present state, but merely say, "show us a head, and we will tell you how the wearer is likely to act and feel in such and such a situation." But they also say, that there are natural differences of talents and disposition which neither education nor circumstances can perfectly assimilate, and that some minds take suggestions more easily than others; that no change of situation would have made Hampden, Strafford—or Strafford, Hampden; and that Δ might have sat for his whole life in Newton's chair, and in Newton's garden, and have seen every apple fall from every tree, without having his ideas carried up to the theory of gravitation, or beyond that of a dumpling.

As far as I can understand your correspondent, he has mistaken the phrenological doctrine of firmness, which may be well given in the words of Sterne:—"That quality which would have been called firmness in a good cause, and obstinacy in a bad one." It is sufficient to say, that steadiness and unimpressibility, and their absence, in persons of otherwise similar dispositions, are so common, that nearly every one may find examples, even in his own family. If Δ has not perceived any instances, all that I can say is, that I am sorry for him, and hope he will look again. His observations on the character of Othello are correct enough; but the immediate emotion of Othello towards Cassio, would be ascribed by a phrenologist, not to firmness, but to destructiveness. Othello [illegible]s before he has time to cool. Had he pursued his revenge half a dozen years, unchanged and unmitigated, we should say that firmness must have been a leading point in his character.

What I have said, I trust, is sufficient to show that your correspondent is not entitled to conclude with the very triumphant hope, that, "*from the above observations*, all unprejudiced minds will admit the insufficiency of phrenological evidence;" and that, whether phrenology be founded on a rock or the sand, it stands just as it did a week ago, as far as regards his attack upon it. Should he resume his pen, I would submit to him, that a little more attention to politeness will not blunt the edge of his wit, or diminish the weight of his arguments. Such terms as "shallow phrenologist," "resolute quackery," and the like, do not help a good cause, and make a bad one worse. And, as to phrenology being "derided by the wise," and supported alone by "resolute quacks," I beg him to turn to page 217 of the Number in which his article appeared, and if, after having done so, he repeats his accusation of ignorance and imposture, I have no more to say of him; but the public will judge between us.

I am, Sir, your obedient servant,

Temple, Nov. 17. B. H.

CHERRATTAH.

To the Editor of THE LANCET.

SIR,—It has long been a matter of surprise to me, that the cherrattah, which has been held from time immemorial in great estimation by the natives of Bengal, and the European residents, especially by the medical officers, as a very efficacious deobstruent and stomachic medicine, should not have been introduced into the practice of this country, especially as the variety of dyspepsia, for which it is considered a specific, (accompanied with, and probably dependent on, sluggishness, or an overloaded state of the liver,) is as prevalent in this country as in the East Indies. It is said, the effects of the cherrattah are not, like the stomachics in general use, confined to the stomach, but are extended to the other abdominal viscera, particularly the liver, which it deterges, or, as Dr. Currie observes, "emulges," and this I belive to be the case; for I have observed the fæces, during its use, to be well charged with bile, and the complexion to become clear. Although not aperient, it evidently prevents an accumulation of fæces in the lower portion of the intestinal canal; which, as a late writer observes, is a common cause of disorders of the stomach and head, at the same time it promotes digestion. The medicinal virtues of this herb are imparted to boiling water; and the infusion, when properly made, is a very grateful bitter, but the natives prefer the decoction made by gently boiling half an ounce of the cut dried herb in a pint of water, for about fifteen or twenty minutes; of this decoction, they take a small wine-glass full two or three times a day. The extract, which also contains the virtues of the herb in great perfection, is taken in the form of pills. It is likewise given by the Indian practitioners, in cases of pulmonary consumption and scrofula; but of its effects in the former malady, I cannot speak from experience; but, in the latter malady, I have frequently witnessed its salutary operation. Dr. Fleming, late of Bengal, speaks highly of the cherrattah as a tonic medicine. The author of the work on tropical diseases, also gives it a high character; and Mr. Addison, the author of a treatise on the Malvern waters, says that, from the very beneficial effects it had on himself, it is a valuable addition to the class of stomachic medicines.

I am, Sir,
Your obedient servant,

THOMAS BAKER.

Stamford Street, Blackfriars,
Nov. 13, 1828.

LACERATION OF THE BRAIN.

To the Editor of THE LANCET.

SIR,—Presuming that the following case of laceration of the brain, without fracture of the cranium, will be deemed worthy of notice, I send it for insertion in THE LANCET, and am, Sir,

Yours obediently,
T. W. WANSBROUGH.

Fulham, Nov. 9th, 1828.

The late Mr. Dunn, a corpulent man, was thrown from his horse on Fulham Bridge, by an errand cart, driven furiously against him. The horse and his rider were precipitated with great violence by the force of the shock, and Mr. Dunn was taken to the nearest inn, in a state of insensibility, and continued so for *six days*, when he expired. The examination of the brain was performed seventeen hours after death; the following appearances were noted.

Considerable extravasation of blood beneath the scalp, posteriorly. (A complete tendinous origin of the occipito frontalis.)

A considerable effusion of serum between the dura mater and arachnoid tunic; an extravasation of blood between the dura mater and calvarium, opposite the *posterior and lower part of the right hemisphere*; a comparatively slight extravasation of blood between the dura mater and skull, on the *left* side of the posterior lobe, *opposite* the sutura lamdoidalis additamenta.

On removing the dura mater, an universal effusion of serum, extravasation of blood on the pia mater, covering the side of the right hemisphere, but to no considerable extent; on examining the right hemisphere, the extravasation of blood is not continued into the substance of the brain. Plexus choroides empty; the third ventricle full of water; a slight extravasation of blood in the middle division of the base, in coagula. On removing the brain from the base, the extravasation of blood between the pia mater and brain was found to be universal on the outer side of the right hemisphere, but not extending into the substance of the brain, only dipping down into its sulci. *At the under surface of the right hemisphere, and opposite to the external seat of injury, a surface, to the extent of three inches in length, and one in breadth, was lacerated.* The vessels of the pia mater full of blood. It appears that the laceration took place on the *opposite* side of the brain *to that on which the blow was received.* The concussion, therefore, must have been tremendous. The only external mark of injury was a slight abrasion of the scalp on the left side of the head, near the lamdoidal suture, occasioned by the hard gravelled road on which he fell.

THE LANCET.

London, Saturday, December 13, 1828.

It is evident that, so long as human nature is constituted as it is, the limits between fair and unjustifiable comment on the blunders of physicians and surgeons can never be justly estimated, or distinctly apprehended, by the parties who have exposed themselves to animadversion. The law of all communities regulated by civil institutions declares, that no man should be a judge in his own cause; but by a law of human nature, antecedent to all civil institutions, almost every man feels disposed to judge favourably of his own capacity, and to regard any opinion, or act, tending to a different conclusion, as malicious and unjustifiable. From the earliest period at which critics began to exercise their functions, down to the latest instance in which ignorance or bad taste may have been censured and exposed, perhaps a case never yet occurred in which an author acquiesced in the justice and propriety of his flagellation. The respect which a man entertains for his own understanding, like the tenderness wherewith he regards his own flesh, may be a feeling in which no other individual can participate; but he is commonly as ready to resent any disparagement of the one, as to resist any unprovoked aggression on the other. Jupiter, says the fable, has slung one bag on a man's back, containing his own infirmities, and another bag on his chest, containing the infirmities of other men. Hence an attempt to alter the position of these bags is supposed to be naturally resented, and resisted by the party who carries them, as an outrage on the laws of the animal economy. It is an attempt to turn a man's back upon himself; an act of violence, which, though, if we may credit a celebrated authority, the body politic once meditated committing upon itself, it would be unjust and indecorous, supposing the bags of the fable to form part and parcel of our bodies natural, for one man to perpetrate upon another. Happily, however, for the interests of the literary republic, there is not only all the difference in the world between attacks upon the person and upon the understanding of an author, but this difference has been fully recognised by our courts of justice, which have refused, in cases of offences against the laws of good writing, to interfere with the jurisdiction of the courts critical, and have left the offenders to be judged and punished at discretion by the arbiters of literary taste. If the criticism be unfair, the legitimate court of appeal is the public.

The same observations, which apply to criticism on a man's literary compositions, are equally applicable to criticism on his scientific pretensions. Whether we show, by quotations and comments, that an author has written a bad book, or demonstrate, by facts and comments, that a physician or surgeon is ignorant of his profession, criticism is, in either case, directed against the incapacity of the party, and tends, in either case, to disparage his intellectual qualifications. The comments will in both cases, of course, be regarded as unjustifiable, and the critics denounced as libellers by the persons subjected to criticism; but whether the ignorance of those who undertake the care of the public health is entitled to greater protection than that of authors, whose compositions are calculated to mislead or vitiate the taste of their readers, is a question which has not yet been decided in a court of justice. This question has not been judicially decided, because, hitherto, no case, in which the ignorance of a physician or surgeon has been made the subject of comment in The Lancet, has ever been brought into a court of justice, and, before the establishment of The Lancet, reports of cases occurring in our public Hospitals were never published. Our readers are

aware, that we have never commented on errors occurring in private practice, except where such errors have been made the subject of an action at law, as in the case of STANLEY, the Hospital Surgeon, who mistook a piece of flint, of nearly two inches in diameter, and at the distance of more than one inch from his patient's ENTIRE patella, for a portion of that patella; and they are aware, also, of the grounds upon which we have confined our criticisms to the blunders of Hospital functionaries. Now, we ask, upon what principle the physicians and surgeons of public hospitals can be entitled to greater indulgence from medical journalists, than authors who endeavour to instruct, or entertain the public by their scientific or literary productions are allowed by law to claim from literary journalists? Are they more exempt from error? If it can be shown that blunders are never committed by these persons, then we admit that every thing in the shape of severe comment on hospital practice must be unjustifiable, because, by the supposition, such comment must necessarily be unjust. But if, on the other hand, it be matter of notoriety that cases are frequently, aye, constantly, occurring, in which the health and lives of patients are destroyed by the negligence and ignorance of hospital functionaries; if it be matter of notoriety, that the election of these functionaries is frequently an affair of family interest and intrigue, depending, not on the pre-eminent scientific attainments of the person elected, but on the *fiat* of some individual, incapable of judging of such attainments, or, if capable, biassed by considerations wholly distinct from, and inconsistent with, the interests of a charitable institution;—if such facts be notorious, and capable of proof,—in what respect does an incompetent hospital functionary deserve greater indulgence at the hands of a journalist, than an ignorant or vapid writer? or, upon what principles of law or reason is he entitled to ask for greater immunities? The law, as we have stated, has never directly decided on the partic lar case of a physician, or surgeon, supposing himself to be too roughly handled by a medical critic; because, hitherto, physicians and surgeons, who have considered themselves aggrieved by the publicity given to their mishaps, have deemed it wiser to appeal to a medical than to a legal tribunal. But the analogy between criticism on cases of *mala praxis* in surgery or medicine, and criticism on despicable literary compositions, seems to us to be complete, as far as the courts of law have carried the principle of *damnum absque injuriâ*, as applied to the loss sustained by authors in the latter cases; and upon grounds of public expediency, that principle might be carried still further, in the case of incompetent surgeons and physicians. The courts of law will not protect an author, however damnified in his literary reputation, against his critic; and why? Because, if they cramped observations upon authors and their works, the public might suffer in their pockets, and in their literary taste, by the purchase of worthless books. Apply this principle to criticism on medical or surgical practice, and by how much the health and lives of the public are of more importance than their advancement in knowledge, or their literary taste, by so much will the Physician or Surgeon, whose practice is animadverted upon, be less entitled than the author to the interference of a court of law against his critic. The incompetent physician or surgeon may be damnified in his pocket by the criticism, and so may the incompetent author; the physician or surgeon may have nothing but his professional skill, however slender, to rely upon; and the literary powers, however despicable, of the author, may be his sole means of subsistence; but, where the public is a gainer by the exposure of false pretension, the loss of the individual exposed is held by the law to be *damnum absque injuriâ*,—a loss entitled to no reparation—a loss which he ought to sustain.

It is perfectly clear, that if a physician or surgeon write a book on a professional subject, he is just as liable as any other author, to be publicly taxed with ignorance; and that however damnified by the criticism, aye, though his fee-book may have been rendered *carte blanche* by the castigation, he cannot recover damages, in a court of law, against the critic, provided the censure, or even the ridicule to which he may have been subjected, arise fairly out of the subject-matter, and cannot be taken to be directed against the private or moral character of the man. And a court of law would not, in such a case, enter into the question, whether the critic was, or was not right, in his view o the merits of the work; but, if it appeared that he had not travelled out of the work he criticised, for the purposes of slander, it would, on a plea of the general issue, direct a verdict for the defendant. Now the only difference between the case just put, and those under discussion, which, to a certain extent, may be considered *primæ impressionis*, is that whereas in the former the thing criticised is a published composition; in the latter, the thing criticised is an operation publicly performed. The loss to the individual is likely to be equal, whether he be shown to have betrayed ignorance of the principles of his profession in a written composition, or unskilfulness in the practice of it ns a public operation; and the gain to the public is greater in the latter case than in the former, inasmuch as the safety of the community is more directly compromised by the incompetency of a public operator. Upon these principles, he who criticises a public operation, would be as fully entitled to a verdict, as he who criticises a written composition on a medical subject, supposing him to meet an action for damages by a plea of the general issue; *à fortiori* would he be entitled to a verdict, supposing him to be able to plead and sustain a justification of the truth of the matter, whereby the reputation of the party criticised is supposed to be damnified.

A Treatise on the Diseases of the Bones. By Benjamin Bell, Fellow of the Royal College of Surgeons of Edinburgh and London. Edinburgh. Blackwood. 8vo. pp. 294. 1828.

From the comparatively low organization of bone, and the consequent slowness with which all its sanatory, as well as morbid, processes are carried on, surgeons not having an opportunity of observing the immediate effects of remedies, have imbibed a notion that art can effect little or nothing in diseases of the osseous tissue;—that, in fact, every thing must be left to the *vis medicatrix naturæ*. Hence, although we have many excellent systematic works on the pathology of the bones, it is strongly impressed on our minds that there is, generally speaking, a want of information on this subject, arising from the causes we have alluded to.

The method of classification, which the author has adopted in describing the diseases of bone, is as follows:—

"I. The first head includes the various kinds of inflammation to which bone and its membranes are subject, viz.—1. Inflammation of the periosteum.—2. Inflammation of the surface of bone.—3. Inflammation of the internal structure, or interstitial inflammation of bone.—4. Suppurative inflammation of bone.—5. Scrofulous inflammation of bone.—6. Adhesive inflammation of bone.

II. Under the second head are included the consequences of inflammation, viz.—1. Abscess in bone.—2. Ulceration of bone.—3. Mortification of bone.

III. The third head includes those affections of bone which apparently depend upon a morbid condition of its assimilating vessels.—1. Softening of bone.—2. Brittleness of bone.—3. Interstitial absorption of bone.—4. Interstitial deposition and enlargement of bone.—Atrophy or wasting of bone.

IV. The fourth head includes those preternatural growths from bone, which have not been proved to be the result of inflammation, and which are not of a malignant nature.

V. The fifth head embraces those incurable diseases which depend upon degeneration of the osseous tissue, viz.—1. Spina

Ventosa.—2. Osteo-sarcoma, or Fungus Hæmatodes of bone.

VI. A sixth head may with propriety include those anomalous affections of bone, concerning the nature of which little as yet is known.—1. Bloody tumour, or aneurism of bone.—2. Tumours dependent upon the existence of hydatids in the substance of the osseous tissue."

Mr. Bell makes some interesting remarks on "interstitial absorption of bone," a term which he first employed in a memoir, published in 1824, in reference to the well-known affection incidental to the neck of the thigh bone. The disease, however, Mr. Bell informs us, is not peculiar to the femur, it is not common to any period of life—in the young it is generally confined to the vertebral column—and in the middle-aged and elderly its usual seat is the cervix femoris. We regret that we have not space for the whole of the author's remarks on this subject, both as regards the local peculiarities of the affection as well as its general characteristics. But, in the opinion of Mr. Bell, it is important to notice that—

"At an early period of life, or even in adult age, when, from habit, the body has been suffered to incline on the side, beyond the proper centre of gravity, the unequal pressure of one vertebra upon another, on the side to which the tendency to inclination has occurred, occasions, in the first instance, a partial absorption of the intervertebral cartilages, and subsequently of the vertebræ themselves."

The various diseases enumerated in the author's classification, are separately treated of in a brief, yet sufficiently intelligible manner, and although we do not find any thing novel as respects the pathology of the bones, yet the whole subject is so well treated, that in two hundred pages of an octavo volume, there is sufficient information for general purposes. It is no small recommendation to this work, that, with a few exceptions, all the morbid conditions of the osseous tissue which Mr. Bell has described, have come under his own observation; the diseases have been studied at the bed side, and in the dissecting room. Subjoined to the treatise, is a catalogue of the preparations illustrative of the diseases of bone, contained in the museum of the Edinburgh College of Surgeons. The description of these preparations is drawn up by Mr. Charles Bell, who was, if we mistake not, the original possessor of these "neese spicimins."

The author has fallen into one egregious error, which we must take the liberty of correcting before we conclude our review. In a note, at page 191, Sir William Blizard is designated "one of the FATHERS of surgery." One of the GREAT GRANDMOTHERS would have been nearer the truth.

QUESTIONS PROPOSED TO A CANDIDATE FOR THE DEGREE OF M.D. AT EDINBURGH.

DR. GREGORY'S QUESTIONS.

WHAT is a muscle?

Are the extremities of muscles of the same texture as the other parts?

Why are the extremities of muscles composed of tendon?

What are the conditions in which a muscle exists?

Do muscles always become relaxed after contraction?

What are their diseases?

What is the colour of a muscle?

Is this colour essential?

Whence is it derived?

When the blood is removed, what is their colour?

Are there any hollow muscles?

Have the arteries any muscular fibres?

What is the use of them?

Has not the heart the power of propelling the blood?

How do you prove this?

Are muscular fibres discovered in the veins?

Are there any valves in the arteries?

Are there any valves in the veins?

In what part of the body is that?

How are the veins here subjected to pressure?

What is the cause of paralysis?

Does the pressure occur at any particular part?

Is there ever any other symptom, besides loss of motion, in paralysis?

If pressure is made on the right lobe of the brain, where will paralysis occur?

What is that disease called, when, besides loss of sense and motion, there is also a comatose state?

Are paralysis and apoplexy allied to each other?

How do you know this?

Are there any other diseases of the muscles?

What are the symptoms of epilepsy?

Are all the muscles of the body always convulsed?

Are there any symptoms denoting the approach of an epileptic fit?

Does the patient recover immediately, and all at once, from the fit?

What is the definition of rheumatism?

Does the disease affect any other part besides the muscles?

Is there any pyrexia in this disease?

Is it synocha or typhus?

What are the causes of this disease?

Are there any other causes, when cold is not applied?

Does the pain ever remain after the pyrexia is gone?

How does the disease terminate?

Does it ever end in suppuration?

Does suppuration ever affect the muscles?

Does the disease ever terminate in gangrene?

Does death ever ensue from this disease?

What remedies would you employ?

Has the blood, when drawn, any peculiarity in this disease?

What is the buffy coat?

What is the cause of this separation?

Does the blood, in such circumstances, coagulate faster or slower than usual?

What time, in general, does the blood take to coagulate?

Is it ever longer?

What other remedies would you use?

What diaphoretics would you use?

What do you mean by the pulvis opiatus?

What does this powder contain besides opium and ipecacuan?

What are the proportions of the ingredients in a scruple?

In what dose would you give it?

What inconvenience sometimes arises from it?—does it ever affect the stomach?

Are there any bad consequences ever left after the disease is cured?

Dr. Home's Queries.

What are the diseases in which the muscles are affected with spasm?

Mention some of them.

What are the symptoms of tetanus?

Are there any muscles particularly affected?

What muscles of the hand are chiefly affected?

Are the muscles of the lower jaw affected?

What are the species of tetanus?

What is opisthotonos?

What is emprosthotonos?

Are the muscles of the abdomen affected?

Does tetanus occur more frequently in some countries than in others?

What renders the body more susceptible of the disease in these countries?

What are the causes of it?

Are there any other causes?

Are there any internal causes?

Are there any causes applied to the bowels?

How do you know worms are a cause?

How does tetanus terminate?

What are the remedies?

How does calomel act?

Does it act in any other way?

But how does it act in general?

Has it any other mode of acting?

Does opium act in any particular way in this disease?

How does its action differ?

In what dose would you give it?

Who first introduced this remedy into practice?

Is the warm or cold bath most efficient?

How is the cold bath to be administered?

What would you do with your patient after coming out of the bath?

What would you do next?

What would be the effect of opium?

But in what manifest way would it relax the spasm?

Dr. Hope's Queries.

What are the earths?

There are more: What is very abundant in the soil?

What others are found more sparingly?

How do you know lime from magnesia?

How do you know them from the action of sulphuric acid on them?

What are the principal acids?

Is there not one furnished very abundantly by Nature?

How is sulphuric acid made?

What is its composition?

Does sulphur form any other acid?

How is it obtained?

Is it procured by any other way?

What is the chemical action in this case?

In this way known, we cannot obtain sulphurous acid pure: What substances very readily take oxygen from sulphuric acid?

What is formed by burning sulphur?

What is the difference between sulphuric and sulphurous acids?

What is the natural state of sulphurous acid?

What takes place if both the acids are exposed to the air?

Is sulphuric acid, or water, the heaviest?

Dr. Monro's queries.

How is lime water made?

Is it not to be strained?

In what diseases is it used?

Is it used in any other?

In what quantity would you give it?

In dyspepsia; how much?

As lime water cannot be given by itself, how would you give it?

Why should it not be given in calculus? Does it ever augment this size?

How would you know this by examining the calculus?

What medicine is chiefly now used in calculous complaints?

If given in large quantities, what inconveniencies arise?

What is its dose?

How would you exhibit it?

How is magnesia supposed to act in this disease?

Dr. Duncan, senior—queries.

What is the name of the disease when there is a collection of water in the thorax?

What are its chief symptoms?

What is the state of the pulse?

You said the patient lies with difficulty on his back.

Why does he breathe more easily in the erect posture?

What medicines do we use to evacuate the water?

What remedies are used?

What is digitalis?

In what form is it used?

How much of the powder would you give?

Has digitalis any peculiar effect on the pulse?

What are the effects of an overdose?

This finished my first examination; it lasted one hour, and took place at Dr. Gregory's house, in April. In June, the following short examination took place at the College in private.

Dr. Duncan's queries.

How many external senses are there?

Enumerate them.

Where is the sense of feeling situated?

Are not other parts of the body possessed of this sense in a certain degree?

How is the sense of feeling diseased?

Dr. Home's queries.

Give an example of the depraved sense of feeling?

I now received from Dr. Monro the following aphorism, to write a commentary on, and medical questions from, Dr. Hope, and, on the 6th of July, was examined thereon.

"Si rigor incidat febri non intermittentæ, debile jam existente agro, lethale."—*Aphorisma.*

"Quid est irritabilitas?

"An pendet à vi nervosa?"—*Questio Medica.*

After this I received two cases; the one from Dr. Rutherford follows; Dr. Gregory's is lost.

"Mulier 50 annorum, laxioris habitus corporis, affectionibus rheumaticis admodum obnoxia, tempestate frigidâ de gravi capitis dolore conqueri cœpit. Dolorem hunc brevi insecuta est oculorum inflammatio, levis quidem initio, mox quam gravissimè aucta, adeo ut palpebras attollere nequeat, ob acerbum et lancinantem dolorem, minima admissa luce prorsus intolerabilem reddi-tum. Perstat cephalalgia cum acuto corporis calore, siti magna, cibi fastidio, alvo astricto, pulsu interim celerrimo et debili.

Dicat dominus candidatus. Morbi naturam. Symptomatum rationem. Prognosin. Methodum medendi, cum remediis idoneis præsenti ægro accommodatis.

Finally, I have to defend in public my Inaugural Dissertation.

WESTMINSTER MEDICAL SOCIETY.

December 6, 1828.

— Arnott, Esq., in the Chair.

TREATMENT OF CONCUSSION.

Mr. M'Alpin, after the Minutes were read, introduced the subject of concussion, with a view of having the opinion of the Society upon the most appropriate treatment. As far as his own judgment went, he was decidedly averse to bleeding in the first stage, and which he thought, but for the prevailing public prejudice in its favour, would not be so frequently resorted to. He considered that re-action ought to be allowed to take place before venesection was thought of.

Dr. Duffin observed that, during his stay at Florence, he had seen the Professor there treat three cases of concussion. That treatment consisted in taking away small quantities of blood, only a few ounces, in the first stage, during complete collapse, under the impression that this mode of treatment acted as a stimulant to the arterial blood. The professor considered that, in concussion, there was a congestion of

venous blood in the brain, and that by bleeding in small quantities, the arterial circulation was afterwards enabled to go on. After re-action took place, he bled freely as in other cases. Those three cases did perfectly well. Dr. Saunders, of Edinburgh, (Dr. Duffin believed,) had practised the same plan of treatment for twelve years. He had been in the habit of taking away small quantities of blood in the first stage, then of giving stimulants, and, afterwards, treating the case upon general principles.

Mr. BURNET did not think the reason of bleeding, either in concussion, compression, or apoplexy, well understood. He was persuaded, that at no time could any additional supply of matter be admitted within the cavity of the brain. In the cases to which he had adverted, the venous circulation was, in a great measure, put a stop to; the veins of the brain could not empty themselves, therefore the arterial blood was not admissible; hence the redness of face that frequently appeared in apoplexy. Upon removing the venous blood, the brain became stimulated by the flow of arterial blood into it, and which he conceived to be the only mode of stimulating the brain to action.

Mr. M'ALPIN objected to the mode of depletion in the first stage, as it was had recourse to in this country. It was considered nothing, here, to take away twenty or thirty ounces of blood. He believed the grand point to be, to get the brain stimulated; and if the opinion of the Society was, that small bleedings would do that, and was the only means, he could have no hesitation in receiving such a decision.

The PRESIDENT wished to know what stimuli were given, either on the continent, or at Edinburgh, after the small bleedings.

Dr. DUFFIN did not say that the professor at Florence gave stimuli, but that Dr. Saunders had done so.

Dr. SHEIL, as far as he was capable of recollecting, believed Dr. Saunders had informed him, that, in treating cases of this sort, he had always taken into consideration the idiosyncrasy of the patient, and the history of his constitution; that he had even seen gout producing epilepsy, and all the symptoms of apoplexy; and that, in such a case, he should not treat the patient as he should a patient under ordinary circumstances.

Dr. ADDISON considered, that if this were so, it was a mode of treatment extremely liable to be misconceived. If an apoplectic gouty subject was to be treated differently to other subjects, the case might be greatly endangered. As to bleeding being the means, and the only means, of increasing the circulation of the brain, this was a misconception. It was well known that there were other stimulants which excited both the heart and arteries to increased action. In the treatment of all cases, the symptoms were first to be looked at, and then the constitution of the patient. The principles applicable to the treatment of a gouty subject, were generally and precisely those applicable to all apoplectic patients. With regard to the doctrine of incompressibility of the brain, too much stress had been laid upon this. There was the foramen magnum, and the different foramina for the exit of the nervous system, into which, or partly through which, it was possible the brain might be urged by an increased admission of arterial, and detention of venous blood, and who could say how slight a pressure of the brain into these foramina, might not disturb the functions of the organ?

Mr. BURNET believed, that if an additional supply of arterial blood was admitted, it was only in consequence of an increased rapidity of the circulation; and that if any more than the ordinary quantity of the venous blood was detained in the brain, then a proportionate quantity of arterial was prevented entering it. Here the discussion ended.

EXTRACTION OF THE TEETH.

SINCE the publication of Mr. De la Fons' paper on Extraction of the Teeth, we have received a variety of communications on the subject; and although we are far from deeming it unimportant, we have not space for *all* which our numerous correspondents have written. It may, in good truth, be said of tooth-drawing as of writing—that every man has a fashion of his own.

Mr. Bedingfield of Stowmarket, in writing to us, says that, while he admits the general reasoning of Mr. De la Fons, on the superiority of the key-instrument to be correct, yet he contends there are some cases in which the forceps are indispensable, as in the removal of the incisors. The key-instrument, which Mr. Bedingfield employs, is constructed with a kind of bridge fulcrum, so that pressure is made on the teeth adjoining that about to be extracted, and the injurious effects of pressure are obviated by attaching a piece of cork to the fulcrum.

"The space left in the cushion (says Mr. Bedingfield) readily allows of the alveolar process being sufficiently broken down by the tooth only, as it is drawn laterally from its socket: whereas, when the decayed tooth is itself made the fulcrum, the cushion of the common key-instrument is crushing the alveolar process in one direction, while the fang of the tooth is breaking it in another;

the alveolar process is, as it were, placed within a vice."

Mr. T. Warner, of Cirencester, on the other hand, writes thus:—"the forceps, if properly made, and properly applied, will remove teeth with much less present and subsequent pain than the key-instrument, and likewise as speedily." The forceps used by Mr. Warner, are of different kinds—adapted to the various teeth.

Mr. Prouse of Bristol says that, in the course of many years' practice, he has "extracted hundreds, not to say thousands," of teeth with a pair of forceps of about five inches in length, bent almost to a right angle, arched and notched in the claws, so that it is easily passed over the crown of the tooth without touching it: and, when it is fixed, "the *obtuse* points of the claws hold the tooth sufficiently firm, without breaking it." The forceps are made strong in the jaws, but tapering from the joint to the handles, by which means they are rendered elastic and prevent too great pressure on the teeth. For the large molar teeth, Mr. Prouse employs a larger and stronger pair of forceps, with jaws of about an inch and half in length.

In addition to the above, we have received a communication from Mr. Knox, with a drawing of his "improved forceps," which appears to us to possess considerable merit.

ST. BARTHOLOMEW'S HOSPITAL.

List of Patients admitted under the care of Mr. Earle, Nov. 27.

Harley's Ward, No. 2.—W. Darley, æt. 16, calculus in the bladder.

Baldwyn's Ward, No. 6.—John Quin, æt. 36, extensive ulceration of both legs.

No. 7.—John Vines, æt. 30, large sloughing ulceration of the right groin.

Sitwell's Ward, No. 2.—Sarah Hicks, æt. 68, cancer over the radius of the left forearm.

Elizabeth's Ward, No. 3.—Ann Grant, æt. 19, injury to the dorsal vertebræ.

A few others, with slight injuries, principally to the knees, as well as some common cases, into the Venereal Wards.

No cases of importance were admitted on the two last "taking-in" days.

OPERATIONS—LITHOTOMY AND CASTRATION.

On Saturday Mr. Earle performed the operation of Lithotomy on Thomas Cooper, a boy eight years of age; after making an incision with a common scalpel, he used Blizard's knife, which he withdrew, and introduced four times before completing the incisions. The staff was held by Mr. Vincent, and some delay, in the course of the operation, was occasioned, in consequence of Mr. Vincent, from a motion of the patient, and perhaps too intensely observing the course of the knife, permitting the staff to slip out of the bladder, by which the operator conceived he had cut into the neck of it, when, in fact, he had not. After the incisions were completed, the stone was easily extracted. It was a flat lithic acid stone, a quarter of an inch thick, three-quarters of an inch broad, and rather more than an inch in length. From the application of the scalpel to the perineum, to the extraction of the stone, four minutes and forty seconds elapsed; another minute was occupied in ascertaining that nothing further remained in the bladder. The boy was then removed to bed, and up to the writing of this report, has continued to do well.

Castration.—Mr. Earle removed, on the same day, the testicle of Thomas Wells, æt. 24, in consequence of extensive scrofulous disease. The patient has enlarged scrofulous knee-joints, and is, altogether, out of health. About a year ago he had the opposite testicle removed, owing to the same disease. Three arteries were taken up, and the patient removed to bed. The testicle, which was the size of a large fist, when cut into after it was removed, presented, in part, a healthy appearance, from which, if the morbid parts could have been thrown, Mr. Earle thought might have retained the power of secretion, but he was induced to perform the operation, in consequence of the declining health of the patient.

Greatly to the advantage of the pupils, and, consequently, much to the credit of the operator, no one was permitted to surround him during these operations; consequently, the pupils had a distinct view of the operations from all parts of the theatre, This is as it ought to be, and an example which it is sincerely to be hoped all the surgeons will follow.

FRACTURE OF THE BASIS CRANII, WITH LACERATION OF THE BRAIN.

William Hurst, ætat. 22, was admitted into Colston's Ward, Nov. 17, at half-past three P.M., with a lacerated wound of the scalp and periosteum, over the external angle of the left eye. A small portion of the bone was exposed, on which the commencement of a fracture was visible. He had fallen from the roof of a house, several stories high, whilst feeding pigeons. Was

insensible when brought in, and had slight bleeding from the nose and mouth; vomited much; pupils acted very slightly; breathing stertorous; pulse feeble, and intermittent.

℞ *Calomel*, gr. iij.; *jalap*, gr. x. *statim*.
Cold cloths to the head (not shaved).

Towards evening the pulse began to rise, and the dresser bled the patient to ʒxvj. In ten minutes afterwards, the pulse became more feeble, and therefore the dresser, Mr. Thornton, wrote for eight ounces of *brandy*, part of which was given him in small quantities every quarter of an hour, or twenty minutes.

18. Still insensible; breathes with less stertor; pulse 130, and intermitting; pupils contracted, but they act slightly on exposure to light; the bowels freely opened during the night.

19. Had violent drawings up and tossings about of the legs during the night, so that it became necessary to have them strapped down; irides immoveable this morning, and the pupils much contracted; breathing changeable, being more or less stertorous at intervals; pulse fluttering; countenance sinking.

Mr. Vincent now ordered the head to be shaved, and cold cloths to the scalp; also, ʒxiv. of blood to be taken, if the pulse would bear it. The blood was slightly buffed on some parts of its surface.

Died at half-past two on the following morning.

Post-mortem Examination, at Half-past Ten o'Clock.

Immediately beneath the dura mater was found a considerable effusion of blood, over the surface of the right hemisphere of the cerebrum, and great turgescence of the vessels of the pia mater of the opposite side. The substance of the brain presented strong marks of vascular excitement, and, on being removed from the skull, the posterior lobe of the right hemisphere was found to be much lacerated, but no extravasated blood was discovered at the basis of the skull; a fracture of the basis extended from the left external angular process of the frontal bone across the orbital plate, downwards, and across the sella turcica, running backwards the whole length of the petrous portion of the temporal bone, over the cavity of the internal ear; a bloody serous effusion within the theca vertebralis, and, in some places, blood extravasated into the substance of the spinal marrow itself. Blood was also found extravasated and coagulated in the cervical portion of the vertebral canal external to the theca. The laceration of the brain was on the opposite side to that which immediately received the blow.

PHAGEDENIC ULCERATION OF THE UPPER LIP.

Sarah Coulan, ætat. 28, a very unhealthy looking woman, and in an extremely debilitated state, was admitted into Magdalen's Ward, October 9th, under the care of Mr. Lawrence, with extensive foul phagedenic ulceration of the upper lip and left cheek, (the left upper eye-lid destroyed by the ulceration,) and chronic conjunctival inflammation of that eye. The sore on the lip has been attended with much inflammation of the neighbouring parts, and considerable pain. A small painful pimple came on her lip about three months ago, which has gradually extended into the present state of sore; is suspected to be syphilitic, but she declares that she never had any venereal symptom; is a widow; remembers her husband, some time ago, giving her some pills for the benefit of her health generally.

Ordered a solution of the liq. opii. sedativ., the proportion of ʒij. to ʒvj. of water, to be applied to the wound by means of lint; bread and water poultices; pil. sapon. cum opio, gr. v., omni nocte; and gr. ijss. bis in die, with essen. sarsp. ʒss. ter quotidie; and house physic occasionally.

17. The general health better; the aspect of the sore much improved, and the surrounding inflammation abating; the pain also much diminished. Omit the pills, and continue the sarsaparilla.

26. Has been fumigating the sore for the last week, and taking the pil. sap. c. opio, gr. v. omni. nocte, again, continuing also the sarsaparilla. The sore is very much improved, presenting now a clear, healthy, granulating surface; the gums rather tender with the fumigation. Continue.

Nov. 19. Her mouth has been kept affected by the fumigation for about a fortnight, and she has continued the sarsaparilla all along, but omitted the opium pills during that period. The ulceration of the eyelid healed, but the tarsus being destroyed, the edge is rendered irregular, so that she is incapable of completely closing her left eye. Discharged cured.

OPERATIONS.

Mr. Vincent removed the left leg of Elizabeth Fletcher, ætat. 23, at the superior extremity of the lower third of the femur. The knee had been long diseased, and the patient exceedingly reduced in strength by it. The operator made a double flap: six arteries were secured.

Mr. Vincent took off the right leg of William Hawes, ætat. 25, at the same part

of the femur. This operation was also performed in consequence of a chronic diseased knee, which threatened the destruction of the patient.

Lithotomy.—Edward Darley, ætat. 16, was brought on the operating table at five minutes past one, to undergo the operation of lithotomy by Mr. Earle. On introducing the staff, the bladder not being much distended, the operator was unable to strike the stone. The instrument was withdrawn, and three other staffs introduced; but though about half an hour was occupied by Messrs. Earle, Vincent, Lawrence, and Stanley, in trying to come in contact with the stone, they were unable to do so. Some thought the staffs were in the *urethra*, some in the bladder, and some detained at the prostrate. During the whole of this period the patient was suffering great pain. Mr. Earle then introduced the staff he had first used, having altered its curve, and, without further difficulty, came upon the stone. At 26 minutes and a half to two, he began to make the first incision, and extracted the calculus in *four minutes* afterwards. After having made the incision into the bladder with Blizard's knife, he introduced it a second time, to enlarge it. The stone was of a *mulberry* kind, the size of a large walnut, rather of an oval form, and extremely rough. After it was nearly brought out, the operator lost his grasp, and therefore the forceps were obliged to be introduced again before it was brought away. Mr. Lawrence held the staff.

WESTMINSTER HOSPITAL.

STRANGULATED SCROTAL HERNIA.

John Pennington Tyly, ætat. 64, an emaciated subject, admitted under the care of Mr. White, on Monday, 17th November, with strangulated scrotal hernia. The patient had had a reducible hernia for about a year. The Saturday previous to his admission, after some exertion, an additional portion of gut descended, and symptoms of strangulation appeared. No application was made for medical aid until the next day, when the usual means of reduction were employed without success. The surgeon consulted, recommended his immediate removal to an hospital. Another day, however, was lost, before this advice was complied with, and he was not admitted until ten o'clock this morning.

The hernial tumour is large, and excessively sensitive. He complains of pain at the umbilicus, and great tenderness of the abdomen. The countenance is pallid and anxious; respiration hurried and constrained; pulse small, irregular, and frequent. No alvine evacuation has taken place for four days, and vomiting of fœcal matter has twice occurred. The preliminary remedies having been promptly resorted to, but without success, Mr. White proceeded, with the aid of Mr. Guthrie and Mr. W. B. Lynn, to perform the operation.

The patient being laid supine, with the thigh bent upon the pelvis to an angle of 40°, Mr. White laid hold of the scrotum, and immediately ascertained the existence of a hydrocele. An incision was then made about three inches in length, in the longitudinal axis of the tumour. Several strata of condensed cellular tissue were dissected with the greatest care, and a small sac, containing about two ounces of pellucid serum, was opened. This the operator supposed to have been the seat of an old hernia, being situated exactly in front of the true sac, which was then immediately opened. The intestine which presented, was of a dark port-wine colour, studded with greenish spots, and emitting a gangrenous odour; the greatest caution was consequently necessary in returning it into the belly, and Mr. White, with that view, made a very free division of the stricture. As strong adhesions existed round the neck of the sac, in the abdominal cavity, the whole of the intestine was not returned, and the hydrocele not having been opened, the wound was closed in the usual manner.

The patient, during the operation, which lasted about fifteen minutes, did not make much demonstration of pain. In that time twelve ounces of port wine were administered to him. Pulse weak and irritable. On being put into bed, the following draught was given, and ordered to be repeated occasionally:—

℞ *Spir. ætheris sulph.*, ʒij.;
Conf. aromat, ʒss.;
Mist. camphoræ, ʒj.; M. ft. potio.

Half an hour after the operation he died.

Post-mortem Examination twenty-four hours after death.

The peritoneal coat of the small guts was injected throughout, and, in many parts, the muscular and mucous coats were affected with inflammation opposite the wound; about eighteen inches of the ileum were gangrenous, and insulated by adhesions from the general cavity of the abdomen and pelvis. The spermatic cord was situated behind the sac, which was every where adherent to the adjacent parts.

GLASGOW ROYAL INFIRMARY.

CASES OF FRACTURE OF THE CRANIUM.

Donald M'Innes was admitted (Nov. 4) with a wound extending over the right eyebrow, which he had received from an iron block, attached to the rigging of a vessel, falling on his head. The wound was nearly ten inches in length, and, by introducing the finger, a fissure could be felt in the bone. On one side of the head, there was a puffy swelling of considerable size, and, posteriorly, a second wound, half the extent of the other, from which there issued a free discharge of arterial blood. Blood, it was stated, had also flowed from the ear. An incision was made over the fractured piece of bone, which was found depressed and detached, two inches and a half in length, and one and a half in breadth. It was removed, along with eight fragments, and the edges of the wound brought together. The operation was, however, productive of no benefit, the patient dying on the table, a few minutes after its performance. When admitted into the hospital, he was quite furious, requiring the exertions of several of the pupils to detain him in bed; but for some time previous to his being brought into the operating theatre, he had been in a state of coma. The body was not inspected.

On the same day, Donald M'Millan was admitted with an injury of a similar nature, received in the same way, and at the same time, with the preceding patient. From the middle of the sagittal suture, there was a wound three inches in length, extending to the posterior part of the head, and, corresponding with this, a portion of bone was found detached, and irregularly depressed. A considerable quantity of blood had been lost, and the right arm, although it presented no appearance of injury, was benumbed and powerless. The patient was quite sensible, giving a correct reply to any question that was asked him. Respiration was unaffected; pupils natural, and pulse 75.

This man was operated on before the last, and was nearly an hour on the table. The original wound was enlarged, and another made at a right angle with the first, extending over the left parietal bone. The depressed portion was now seen, between two and three inches in length, and half an inch in breadth. This was broken into many small pieces, some of which were firmly fixed under the surrounding cranium, and one fragment, in particular, was found driven through the dura mater, penetrating the substance of the brain. The trephine was applied to the left of the depressed bone, and one angular projection, which remained after the circular portion had been separated, was removed with Hey's saw. The broken bone was raised with the elevator, and removed. Ten fragments, some of which were of considerable size, were afterwards picked out of the wound with the forceps. There was only one vessel tied during the operation, and about an ounce of blood lost. This case also terminated fatally. Among other unfavourable symptoms, in a few days a fungus appeared in the wound. Attempts were made to restrain its growth by pressure, but without success. It gradually increased, and on the 17th November, four or five ounces of blood were discharged from its surface. The patient died during the night of the same day. The fungus was of the size of a hen's egg, of a spongy consistence, and dark brown colour. It appeared to be a diseased portion of the substance of the brain, protruding through an aperture in the dura mater, and extending downwards nearly to the roof of the lateral ventricles. Anterior to this, there was a small abscess, and in the ventricles, a quantity of serum. The wound of the scalp was thickened and sloughy.

FUNGOUS TUMOUR OF THE NOSTRIL.

Donald M'Queen, aged 70, was admitted into the Hospital by Dr. Couper, on the 13th November, with a fungous tumour in the right nostril. It bled profusely when touched, and a thin fœtid fluid constantly exuded from its surface. The right cheek was more prominent than the left; and the roof of the mouth corresponding with the floor of the nostril, soft and protuberant. The eyeball was pressed forward half an inch from its socket, and from the gum, which was softened and spongy, there issued a slight purulent discharge. The teeth were also loose, and in addition to the affection of the eyeball, slight ectropium of the lower eyelid had taken place, with distension of the lachrymal sac, and consequent epiphora. Vision was impaired, and around the orbit the patient sometimes felt severe pain, extending backwards over the scalp, generally followed by bleeding from the nose, which, he stated, always afforded him immediate relief. A few days after his admission, the third and fourth grinders were removed, and an opening made into the antrum. Some blood flowed, but no tumour could be felt by the probe, and tepid water, when injected through the perforation, issued freely by the nostril, bringing away a quantity of inspissated pus. The tumour in the nostril was removed with the polypus forceps, and by continuing the injection, a large quantity of solid matter was discharged. Tepid water was afterwards daily injected, and, in a short time, the distension of the lachrymal sac and epiphora, had, in

a great measure, subsided. Vision also rapidly improved.

STRICTURE OF THE URETHRA WITH FISTULA.

Archibald Fletcher, aged 66, was admitted (Oct. 26) with indurated swellings, of a dull red colour, spread over the perineum, and reaching upwards to the external abdominal ring. In the left side of the perineum there was a fistulous opening, into which a probe could be passed to a considerable extent, but no communication, either with the scrotum or urethra, could be detected. Above Poupart's ligament there was a soft fluctuating swelling, extending towards the spine of the ilium, the contents of which could, by pressure, be made to pass through the fistula in the perineum. The prostate gland was of natural size, but about an inch anterior to it a hard callous stricture could be felt; the urine was voided with difficulty, and in a small stream. The patient stated, that he had been subject to stricture for the last 25 years; and that, about five weeks before he came into the Hospital, while exerting himself, he felt a sudden pain in both his groins. His urine, when voided, shortly after this occurrence, was of a reddish colour, and, a few days afterwards, the swelling in the perineum began; this continued to increase until it burst, a short time previous to his admission. The abscess in the groin was opened, and a small quantity of bloody, purulent matter evacuated. A poultice was afterwards applied to the perineum and groin, and a catheter ordered to be kept constantly in the urethra. Nothing worthy of notice took place for eight or ten days, but, on the 7th November, a discharge of florid blood took place from the opening in the groin, and also, in smaller quantity, from that in the perineum; about three pounds were lost before the bleeding was stopped. The patient died on the 10th.

The abscess was situated under the common integuments, extending to the anterior spinous process of the ilium, and also near to the umbilicus. Near the symphysis pubis it got under the cord, and descended along the left side of the perineum to the anus; when opened, its inner surface was sloughy, and found to contain a small quantity of purulent matter. The bladder was thickened, but the vessel from which the blood had issued could not be discovered.

The unfortunate nurse, whose case was lately published, died about a week ago. The inspection of the body was privately conducted; and although a written request was sent to the Visiting Surgeons of the Infirmary to make known the post-mortem appearances, no attention was paid to it. I am told they mean to justify this departure from the usual practice of the Hospital, by the pitiful subterfuge, "that the nurse was a private patient." If candour and justice be forgotten, they surely ought, for their own sakes, to pay some attention to consistency. How much this really is attended to may easily be estimated, from their treating a patient one day, in a public ward, pretending to explain the nature of a case to the students of which they themselves were ignorant; and when that patient is dead—when an opportunity has occurred of setting aside all doubt on the accident, and ascertaining its real nature—unblushingly tell us, that she was a private patient. It is now to be presumed, that the diseased appearances of this patient are not to be made known, however useful or instructive such information might be, or however much it might enable the student to avoid a similar error, certainly not because *she was a private patient*, as is pretended, but merely because such information would expose the ignorance of one of the hospital surgeons.

HOTEL-DIEU, AT NANTES.

DYSENTERY TERMINATING IN GANGRENE, AND PERFORATION OF THE INTESTINES.

Encephaloid Tumour of the Liver, penetrating into the Thorax. Cicatrix in the substance of the Brain.

Jul. Houlier, ætat. 53, of an athletic constitution, and habitually in the enjoyment of excellent health, having, for three weeks, been affected with great debility, loss of appetite, pains in the bowels, and sanguineous diarrhœa, was, on the 11th of June, admitted into the Hospital. At this period he complained of anorexia, violent colic pains, and tenesmus; the abdomen was somewhat tympanitic, but not tender on pressure; the tongue was red and dry; the thirst violent; skin dry and hot; the pulse natural; the daily number of stools varied from ten to twelve. He had a large cicatrix on the right cheek, extending from the middle of the molar bone over the zygomatic arch, to the temporal suture; it was the consequence of a wound which he had received in the war of La Vendée. After the repeated application of leeches to the anus, and under the use of mucilaginous potions, the diarrhœa diminished, but the fever augmented, and delirium acceded.

On the 15th, the pulse was very full, strong, and frequent; the skin hot, face puffed up, conjunctiva injected, eyes bright, tongue red and moist; the abdomen was free from pain, and there was no diarrhœa,

but furious delirium. The patient having been twice bled, the affection of the head and the fever subsided, but the diarrhœa re-appeared with increased violence and frequency; the stools were very fœtid, and sometimes passed involuntarily; the abdomen was somewhat tender on pressure; six leeches were applied to it.

On the 24th, the countenance of the patient was suddenly altered, very pale, and expressive of the greatest anxiety; the abdomen was perfectly free from pain; the stools were involuntary, and had a truly gangrenous smell; the extremities were cold; the pulse could not be felt, &c., and in the evening he expired.

Inspectio Cadaveris.

Under the cicatrix of the face the integuments were firmly adherent to the bones, and the squamous portion of the temporal bone consisted only of a very thin osseous layer, so that, on the least pressure, the scalpel entered into the cavity of the brain. The internal surface of the right temporal bone was rough, and covered with osseous and cartilaginous excrescences, to which the coverings of the brain were firmly attached. The pia mater was much injected, and contained a small quantity of serum. In the anterior and middle portion of the right hemisphere, a cellular intersection was found, corresponding with the external wound, and going through the substance of the brain towards the lateral ventricle, from which it was separated by a very thin layer of medullary substance. This intersection showed a large and compressed cyst, divided into a number of small cells, which were filled with a serous liquid, and the parietes of which were of such a delicate structure that they burst on the slightest pressure. The medullary substance round this cellular intersection, and the other parts of the brain, exhibited no morbid alteration; the left lung was slightly adherent to the pleura, but in a healthy condition; that of the right side was, at its inferior surface, firmly adherent to the diaphragm, by means of a fibro-cartilaginous tissue, which, having been divided, in order to obtain access to the aponeurotic centre of the diaphragm, the latter was found perforated to a considerable extent. The upper part of the right lung was healthy; its inferior lobe contained an excavation of the size of an orange, which was filled by a green, putrid, and very fœtid matter. The heart was healthy. The perforation of the diaphragm was an inch in diameter; its margins were softened, and in a condition approaching to that of encephaloid tumours. The surface of the liver was very rough, and adherent to the diaphragm, by means of a fibro-cartilaginous tissue, which being removed, an enormous excavation was found in the liver, communicating with the aperture in the diaphragm, and filled with a thick, putrid, pultaceous matter; it occupied nearly the whole of the upper half of the liver, and presented, in its centre, a softened encephaloid tumour, which was united to the tissue of the liver by means of a very delicate cellulo-vascular texture, from which it could be easily detached. The peritoneum and epiploon exhibited some traces of inflammation, and the intestines were adherent to one another. The mucous membrane of the stomach, duodenum, and small intestines, was healthy; that of the large intestines was extensively ulcerated and gangrenous. In the middle of the transverse portion of the colon there was an eschar of two inches in diameter, which, in its circumference, had produced a perforation. The vena cava contained a thick, dark-coloured blood, in which some whitish matter was found, which had much resemblance to the liquid contained in the cavity of the liver.—*Révue Médicale.*

HOPITAL SAINT LOUIS.

PUSTULAR VENEREAL ERUPTION, TREATED BY THE SUBCARBONATE OF AMMONIA.

P. M., 38 years old, emaciated, and of a very weak constitution, observed, in the month of July, a particular eruption on his forehead; this having been suppressed for a time, by a nostrum, the composition of which was unknown, soon returned again, with a tendency to form ulcers, and began to spread over the whole body. On his admission into the hospital, in September, under the care of M. Biett, he was, in the following state:—Almost the whole of his body, but especially the inferior extremities, were covered with ulcerating pustules of different sizes; in the centre of each pustule there was a prominent, black, very hard crust, surrounded by a white ulcerating margin; the epidermis round the ulcers presented a copper-coloured defined areola. In those pustules, where the crusts had been detached, the surface was excavated, much injected, and covered by greyish-white, tenacious matter; the skin, between the pustules, exhibited livid blotches, the scars of former ulcers. The patient had, in 1814, successively been affected with gonorrhœa, chancre, and bubo, and had never had recourse to a proper mercurial treatment; he was married, and his wife, who had borne several healthy children, had never presented any signs of infection. His general health was good.

M. Biett, having for some time employed

cinnabar fumigations, and the alkaline bath, prescribed the subcarbonate of ammonia, from the use of which, he had, in similar cases, observed very satisfactory effects; the patient took a drachm daily, and this, being borne very well, and without the least disturbance of the digestive organs, the dose was afterwards increased to two, and even to three, drachms. The crusts were gradually detached, and the excavated ulcers became more superficial, and assumed a healthy appearance; so that the patient, after having used the subcarbonate of ammonia for twenty days, was perfectly cured.

PSORIASIS INVETERATA, SUCCESSFULLY TREATED BY THE ARSENICAL SOLUTION.

Xav. Host, ætat. 39, of a vigorous constitution, was, on the 7th of September, admitted into the Hospital, under the care of M. Biett. Having, up to his eighteenth year, enjoyed good health, he observed, at this period, without any previous cause, a scaly eruption on his legs and thighs; the scales were very small, dry, of a whitish colour, and slightly adherent to the skin, from which they were detached by the least friction, leaving some elevation and redness. In this state the patient continued for several years, without any disturbance of the constitution; sometimes, especially in winter, the eruption disappeared entirely; bnt, on returning, it insensibly extended over the whole body, and the scales began to change into thick crusts, which were firmly attached to the skin. During the last three years he had been much addicted to drinking, in consequence of which the disease had become so serious as to induce him to seek for medical aid. When admitted into the Hospital he had, for the last six months, been in the following state:—The whole body, with the exception of the parts exposed to the air, and the genitals, was covered with large, irregularly oval crusts, of different thicknesses; their surface was beset with white scales, which, according to their longer or shorter standing, were more or less firmly attached to the parts beneath. The skin over the joints, and of the thighs, was covered with very thick, rigid crusts, with large furrows filled by a bloody ichorous matter, so that the patient was almost entirely deprived of the use of his limbs. His general health was not affected, his digestion was good, &c. After a bleeding of ten ounces, and the use of some aperients, M. Biett prescribed the arsenical solution, of which the patient took four drops daily, and this dose was afterwards gradually increased to twelve drops. The effect on the cutaneous disease was astonishing; the crusts, which before had been remarkable for their rigidity and torpid appearance, gradually detached themselves from the skin, leaving, at first, large red blotches, which were again covered with scales, but after repeated desquamation the integuments gradually assumed their natural colour and appearance, so that it was found unnecessary to continue the use of the medicine for more than four weeks, after which period, the vapour-bath having been employed for some time, the patient was perfectly cured.—*Journal Hebdomadaire.*

TO THE MEDICAL PRACTITIONERS OF THE WARD OF FARRINGDON WITHOUT.

Gentlemen,—I have long had it in contemplation to address the medical men resident in the Ward of Farringdon Without, on the propriety of, and indeed necessity for, establishing a "Medical Relief Society," on a somewhat novel, yet I trust a more effectual plan than has hitherto, as far as I am aware, been adopted.

You must, Sir, have had frequent opportunities of knowing that the Dispensaries, as at present constituted, cannot afford that assistance to the poor which it is the object of the charitable subscribers should be given. You well know the time and attention required to be devoted even to a private practice, and that but little of either can be spared for other pursuits; yet, according to the present system, two or three professional gentlemen are expected, in connexion with such practice, to attend not unfrequently as many hundreds of poor invalids, many of whom are too ill to leave their homes, or even their beds! With the most indefatigable exertions, (for which indeed I willingly give them credit,) how can medical attendants afford that grave and deliberate consideration which the cases of the poor, equally with the rich, require?—They cannot. The visits to the patients' houses, and frequently a portion of the attendance at the Dispensary, must evidently be, and in fact *are*, delegated to others.

I am not called upon to discuss the competency of the substitutes, chiefly students; for, admitting their capability, still the poor sufferers and the subscribers have a right to expect attendance, and regular attendance too, from those whom the patients frequently *select* as their particular attendant from among the gentlemen ostensibly their medical advisers.

The plan proposed is briefly this:—

1st. That each practitioner residing in the Ward of Farringdon Without, to whom the plan is agreeable, shall see, at a certain hour every morning, at his own house, all the really distressed poor who may apply, prescribe for them, and send them with the

prescription to be compounded at some central place—hereafter to be selected.

2dly. That each practitioner agree, if called upon, to visit not less than two poor patients at their own houses daily.

Lastly. That a patient may request a consultation of either of the medical men enrolled in the society with the one already in attendance; and that each and all agree to meet in such consultation if called upon to do so.

By the above plan, properly matured, I humbly conceive, that not only would the poor be materially benefited, but that a brotherhood (if I may be allowed the expression) would be established of the practitioners throughout the ward, to the eternal annihilation of all animosity, rivalry, or unfriendly feeling whatever.

If you consider the subject worthy your consideration, may I request the favour of meeting you, with the other medical gentlemen of the ward, at Mr. Croom's Hotel, Bouverie Street, on Tuesday next, December 9, at seven o'clock in the evening precisely, when any new suggestions or alterations may be discussed and decided upon, before the public is invited to sanction the undertaking.

I remain, Gentlemen,
Your obedient servant,
SEPTIMUS WRAY.

9, Salisbury Square, Fleet Street.

VETERINARY COLLEGE.

To the Editor of THE LANCET.

SIR,—I send you a letter* (or rather a certificate) from Professor Coleman, of the "Royal Veterinary College," upon the soundness of a horse, which soundness was in question, in the cause of "Edmonds *v.* Dobson," which was tried on the 19th inst., in the Court of Common Pleas.

This opinion was taken upon the occasion of the horse being sent to the College for examination, accompanied by the card of Lord Kinnaird; and after the horse had been subjected to an hour's apparent examination by the great Professor, and a multitude of other Professors of the College, both great and small, (then and there present, and examining,) the accompanying certificate was handed to the person bringing the horse.

The horse was, as it would appear, at this time, viz., June last, in the opinion of the learned Professor, (I think he calls himself president,) and also of, at least, twenty other incipient and learned Professors, sound, though old; but they could not make the animal young again; and when I had subpœnaed the learned *soi disant* President, in doing which I sent to him the customary fee of a sovereign, and for which attendance, in all not an hour, he, previously to the trial, demanded "*his usual fee*" of five guineas, besides another half guinea for the previous inspection of the horse, and the previous opinion, as it afterwards turned out, from his own oath, to be, that both he and his colleagues had given. And when the learned and profound-looking Professor had driven himself in his triumphal car, the whole of the distance from the Royal Veterinary College to Westminster Hall, there to astonish a "common jury" and "learned judge," with all that he knew, and more too, about "structure and function," and God knows what else, he, the aforesaid learned Professor, and I by no means wish to impute to him any sordid influences, or to have it inferred that he was, in the least, huffed at my refusing, out of justice to my client, to comply with his demands, reiterated, as they were, even while the cause was trying, with a deal of pertinacity, distinctly and positively swore, on being examined, that the horse was at, and from the 17th day of May last, up to the then present time, the 19th instant, an unsound horse, he having an ossification of the cartilages of the hoof, and which opinion he must have formed from an inspection of only one minute's duration of the horse (and that, too, after the professor had been in the witness-box) at the door of Westminster Hall, and, as I firmly believe, from having also previously heard the opinions of Professor Sewell, and of Professor Lythe, of the Horse Bazaar, that the horse was unsound, it having an ossification of the cartilage of the hoof, and which Professor Sewell described to be "a gradual thing, unless produced by some severe exertion," and a "false ring bone," so termed by farriers. In May last, and near a month before our learned President, and his conclave of luminaries of the veterinary art, had examined the horse, which was declared, at the trial, by those who had seen and rode him almost daily, for the last four years, never to have either limped, shown lameness, weakness, or over-fatigue.

I remain, Sir, Your humble servant,
HERBERT LLOYD.

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* My Lord,—I am directed by Professor Coleman to present his respectful compliments, and to state that he perceives no marks of unsoundness in the horse sent for examination, but he is aged, and has done a good deal of work.

I have the honour to be
Your Lordship's most obedient servant,
N. J. MORTON.

Royal Veterinary College,
June 2, 1828.

P.S. After the trial was over, the learned professor applied to me for payment of the half-guinea previously claimed by him for the above certificate. It is almost needless to say, that I gave him, as its value really was,—nothing, to his infinite chagrin.

ROYAL UNIVERSAL INFIRMARY FOR CHILDREN, WATERLOO BRIDGE.

To the Editor of THE LANCET.

SIR,—In your last Number appears a letter, signed "One of the Committee." Of the attack made upon the medical officers as a body, some notice probably will be sent to your office this evening. I shall, therefore, confine myself to a few points which concern myself.

In the first place, the rules enumerated by "One of the Committee," apply to in-patients. The intention of the founder of this Institution was, that it should be at once an infirmary and a dispensary. There were to be four wards for the reception of *surgical cases only*. Two have been finished, but, from causes it is unnecessary to mention, have been converted to other purposes. Had the benevolent intentions of the founder ever been carried fully into effect, I should have felt it my duty either in person, or by a representative, to have been *always* present. The case, however, is different, it is an infirmary in name only. All serious accidents, as we cannot take any in, are, as is generally the case, taken to the hospitals. Four, only, in the space of nearly four years, have been brought to me, and three of these were carried to St. Thomas's and Guy's. It is not necessary, therefore, nor have the Governors ever thought it so, that after the hours of business, their house-surgeon should not indulge himself in a walk, read the papers, or dine, and take wine with a friend. From ten in the morning, till four, five, or six, in the afternoon, as it may happen, *I have not, on any occasion*, quitted the Infirmary.

Secondly, the patients never come, nor ever came before my time, to have their medicines repeated between four and six o'clock. They attend at our usual hours for examining, are spoken to, and if going on well, have, *then*, the same kind of medicines repeated. It is unnecessary, therefore, to be in attendance at these hours.

Thirdly, *ten o'clock*, not *nine*, (see recommendatory letter,) is the hour when the Infirmary is required to be opened, and it *always is opened* at that hour.

Fourthly, I wait for my superiors (they treat me as their equal, I am proud to say, and friend) as long as they wish, and I consider it my duty so to do. A few words more, and I have done: the sarcasm aimed at my two friends, the physicians, in the words, "extensive practice, and exalted stations," will create a smile only; the shaft will fall harmless; "telum imbelle sine ictu."

It only remains to add, Sir, that it is to be hoped the next time your correspondent favours you with a communication, he will have the courage to affix his name to it, as the medical officers will then know whom to thank for his kindness, and the Governors at large learn to whose zeal and exertions the Royal Infirmary stands so much indebted.

I am, Sir, Your obedient servant,
J. WOODHAM, House-Surgeon.
Dec. 9, 1828.

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* The gentlemen who style themselves "the medical officers" to the above Infirmary, have also forwarded a letter, which shall be inserted next week.

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