

having for nearly that time prescribed it for others, with equal success, I feel bound to publish it through your columns, if you will do me the favour to insert this letter, the results of its use in a harassing disorder, with which many persons are at this time threatened.

The preparation recommended, and which I have always prescribed, is the tincture of *nux vomica* of the "Dublin Pharmacopœia." Ten drops of this should be given for a dose, in water, and increased gradually to twenty drops, three times a day: the action of it should at first be watched. It is an agreeable light bitter; increases the appetite; and influences the Schneiderian membrane, no doubt through the medium of the nerves.

I have accompanied the administration of the tincture with the application of an ointment (as high up in the nostrils as possible) composed of one drachm and a half of Goulard's extract; two ounces of spermaceti cerate, and a few drops of oil of roses or of bergamot.

Hertford-street, May-Fair, May 24, 1850.

REPORT OF A CASE OF

STRANGULATED INGUINAL HERNIA, COMPLICATED BY IMPERFECT DESCENT OF THE TESTICLE.

By H. FEATHERSTONHAUGH, Esq.,
SURGEON TO THE GATESHEAD DISPENSARY.

On the 14th of January, 1850, William S—, aged twenty-one, an athletic young man, a miller, was suddenly attacked with severe pain and tenderness in the epigastric and umbilical regions, accompanied by a sense of tightness and distention of the abdomen, with inability to evacuate. Some years previously, Mr. Annandale, of Newcastle, was consulted, it being supposed by his parents that he had a rupture on the right side. Mr. A., however, detected that it was the right testicle in the canal, and explained to them the needlessness of his wearing a truss. Since then he has had repeated attacks of constipation and obstruction of the bowels, which always yielded in two or three days to purgatives, injections, &c.

On examination, I discovered that the right testicle had never descended into the scrotum, but could be felt just below the external ring, the tumour above having a soft feel. No impulse was felt on coughing. He was also suffering from gonorrhœa, and a suppurating sympathetic bubo on the same side.

Jan. 15th.—Symptoms unabated.

16th.—Still suffered from severe pain and distention of abdomen; constant vomiting of dark fluid; hiccup; and pain over tumour, with complete obstruction of the bowels, notwithstanding the treatment he had undergone.—Twelve o'clock, A.M.: Had a consultation with Mr. George Heath, and determined upon performing the operation, in which he assisted me. An incision was made along the course of the inguinal canal, and the dissection carried down to the sac at its lower part; in doing so the upper part of the bubo was laid open, and a quantity of pus let out. On opening the sac just below the external ring, a good deal of fluid escaped and omentum, of a dark and thickened appearance, covering the body of the testicle, which was small and healthy, firmly adherent, and brought into view. On enlarging the incision, and opening the canal upwards towards the internal ring, the epididymis was observed, and in carrying the finger up to the internal ring a very small portion of gut could be felt protruding and strangulated at this point. The stricture was then divided, and the intestine returned into the abdomen. The greater part of the omentum was cut off, and a ligature applied to one or two bleeding vessels, the rest being allowed to remain in contact with the testicle, which had retracted slightly in the canal; wound dressed by means of sutures.—Six o'clock P.M.: Surface of body warm; abdomen softer; freer from pain; had slept a little; pulse fuller; hiccup and vomiting had ceased. Ordered a draught with tincture of horeyamus, and an enema with castor oil, and warm water.

17th.—Less pain and distention of abdomen; bowels had acted; complained of severe pain in the loins; pulse 105, and full; slight hiccup; no vomiting; thirst; had slept occasionally during the night. Continue enemas, with calomel, two grains, powdered opium, quarter of a grain, every four hours.

18th.—Distention and pain of abdomen less; hiccup ceased; pulse 100; thirst less urgent; tongue cleaner; bowels had been

moved freely; he had passed a quantity of urine; wound looked well. Continue powders and enemas.

19th.—No pain except in the loins; distention of abdomen less; pulse 90; thirst abating; bowels open; a good deal of swelling and inflammation of the wound. Continue injections, with linseed poultices to the part.

20th.—Complained of severe pain in the loins; pulse 86; tongue cleaner; slight thirst; he wished to have food; bowels had been moved; free from pain and tension of the abdomen; uneasiness in the wound about the testicle.

21st.—Still better; pulse 80; no thirst; bowels open; pain and distention ceased; appetite improved; wound suppurating freely. Continue enemas, poultices, and castor oil, occasionally, with beef-tea.

29th.—Going on well, and wound healing.

April 1st.—Has progressed satisfactorily from this time, and is now quite well.

Newcastle-on-Tyne, April, 1850.

ON THE ELECTRIC AND MAGNETIC FLUIDS.

By W. F. STEVENSON, Esq., F.R.S.

THE phenomena apparent in the electric and magnetic fluids—viz., the positive and negative qualities of the former, and the attractive and repulsive qualities of the latter, as well as the *direction of the magnetic needle to the north pole*—are not the effects of any peculiar properties in those fluids, but are due solely to the circumstance that the two fluids are in perpetual motion (when free) upon the earth's surface, and that they progress invariably in the direction of the Arctic pole.

These theorems are proved by the following experiments:—

1st. Let *a-b* be a brass-cylindrical rod, suspended by a non-conducting or silken string, or placed upon an isolated table, and then receive the electric fluid at the end *b*, when such fluid will be immediately found to have passed from *b* to the other extremity of the rod *a*, from whence it will continually escape, and be ultimately carried off by the slower conducting power of the atmosphere.

If any number of similar isolated rods be in like manner made to receive the fluid at the end *b*, and are then connected together with the first rod by approaching the end *a* of one rod to the end *b* of the preceding one, the fluid of all the rods will be found to have passed on to the extremity *a* of the first rod. That the fluid which has so passed on to the end *a* of the first rod, and is there making its exit, will be found to be positive (as it is now called), whilst the other extremity of the rods will be found to be negative—the positive end being that where the *exit* of the fluid takes place, and the negative end that where it entered, and thus forming together a current of electricity.*

That the phenomena of the positive and negative qualities of the fluid are the result of the movement of the fluid along the rods, will be evident on reversing the first rod, and placing the end *a* (where the fluid is escaping) in connexion with the end *a* of the second rod, when the current will be necessarily interrupted, and from which circumstance there will be found no positive electricity at the latter extremity of the rods. It will be seen, from what I have stated, that, as the electric fluid is in perpetual motion, and that in its free state it is constantly passing over the earth's surface in one direction, a good conductor must be such an instrument as will best facilitate the transit of the fluid, or enable it to join the general current whenever it is met with detached from such current. Now, although a metal is the best material for a conductor, its power of conduction depends nevertheless upon its shape. For instance, if the fluid is to be conducted or transferred from any body where it may be found into the general current, it is evident that a metal in a circular form, or that of a ball, cannot facilitate such transfer; that, on the contrary, the fluid upon metal of such a shape must be, in a manner, confined and imprisoned, and thus prevented from passing into the general current.

It is this circumstance which leads to the use of small globes at the ends of metallic conductors, when it is desirable to retain the fluid, and that conductors with pointed ends are those which best allow of the exit of the fluid.

It follows, from what I have advanced, that the negative fluid, as it is called, is only the ordinary fluid when met with upon a non-conducting substance, or upon a surface which,

* "Electricity is the only element which is constantly in motion unless restrained; the only one, therefore, that may be said to possess force."—Dr. BENGE JONES, F.R.S., (THE LANCET,) June 10, 1847, p. 32.

though a natural conductor, is deprived of that property by the peculiarity of its form or shape, and that the positive fluid is the same matter when at liberty, or when assisted, instead of being impeded in its motion.

This is unequivocally proved by an experiment of Dr. Faraday, but which he did not comprehend, as it could by no means be accounted for upon the existing notions of electricity. (See this experiment in Sir David Brewster's *Philosophical Magazine* of June, 1843, p. 478.)

Dr. Faraday found that a metallic ball, when suspended (isolated) in the open air by a silken string, was charged with negative electricity, which it had acquired from the atmosphere by induction, (as he terms it.) Now this necessarily implies, and which was Dr. Faraday's conclusion, that there are two sorts of electricity, and that an isolated metallic ball attracted only that which is called negative. That it should do so, however, appeared most extraordinary, as no ordinary suspended and isolated metallic conductor had ever been found to be charged with negative electricity, and it never occurred to him that this exceptional instance might be occasioned by a mere change in the form or shape of the metal. That such, however, was the case, and that no real distinction exists between the positive and negative fluid, the following facts place beyond doubt.

1st. That a suspended and isolated metallic ball cannot be charged with positive electricity, either by induction, or by any other means.

2nd. That when an isolated metallic ball is so charged with negative electricity, if a short cylindrical rod of the same metal be screwed on, or otherwise attached to the ball, with the upper end terminating in a point, this so-called negative fluid will immediately become positive, and that so long as the rod shall remain attached to the ball, it will be found impossible to charge the latter with negative electricity. The reason of this is evident—viz., that the rod re-establishes a current, and thus sets the fluid at liberty.

This puts at rest the question of two electricities, and proves that the difference in the phenomena arises from the matter being met with, sometimes when moving freely, and at other times in a state of comparative inaction, caused by its being attached to a non-conducting body.

We find that when two detached portions of the negative fluid are placed in proximity to each other, no sympathy is manifested between them, as their near neighbourhood, in their constrained position, only tends to embarrass their condition; but present to their aid the friendly conductor, and they instantly bound from their bonds, coalesce with alacrity, and fly from their imprisonment swifter than thought.

With respect to the mariner's compass, the cause of the needle's pointing to the north is not (as we must have already perceived) from any mysterious attraction which exists between the magnetic fluid and the north pole, and of which Nature furnishes us with no analogy, but simply from the course of the fluid being in that path, and its necessarily carrying with it the unresisting needle or conductor.

That this is the true solution is confirmed by the circumstance that we are enabled to decide which end of the needle shall point to the north. For example, if $a-b$ be the steel bar or needle, and we wish to have the north pole at a , we have only to pass the magnet from b to a ; or if we desire it to be at the end b , we pass the magnet in the contrary direction.

The question, however, seems to be clearly decided, when we find that by interrupting the magnetic current we destroy its power of indicating, by the needle, either pole. If, for instance, we magnetize the bar or needle, so as to produce the north pole at a , (by passing the magnet from b to a), and we then pass the magnet, on the same needle, from a to b , we find that we have apparently destroyed the virtue of the magnetic fluid, and that the needle will no longer point to the north.

As the needle, in this case, is unquestionably charged with the fluid, as may be readily ascertained, no other reason can be assigned for its not turning the needle to the north than that we have changed the direction of the fluid, and made it to take a different course.

Indeed, it is difficult to conceive how attraction has ever been assumed as the cause of the peculiar movement of the needle; for when by passing the magnet on the needle from b to a , we find the north pole at a , what ground (except a most fanciful one) can be given, why the attraction at b is not equal to that at a , and in which case the equilibrium would necessarily cause the needle to be stationary?

The causes of the phenomena of attraction and repulsion

are self-evident. For instance, if $a-b$, $a-b$, be two conductors of the magnetic matter, each having received the fluid at b , attraction will be apparent on approaching the end a of one conductor to the end b of the other, and by which means the two fluids (or two portions of the same fluid) are enabled to proceed in one common current; whilst repulsion would be the result of approximating the ends a of the two conductors, and thus opposing the escaping fluid on each conductor, by causing the two fluids to meet in opposite directions.

York Hotel, Sidmouth, May, 1850.

Foreign Department.

Iodine in Water-Cress.

M. CHATIN, Professor at the School of Pharmacy at Paris, lately read before the Academy of Sciences, a paper on the existence of iodine in fresh-water plants. The author mentioned that Dr. Lindley had first pointed out the fact of iodine being present in cress; M. Chatin wished to verify this, and in the course of his investigations he found iodine not only in cress, but likewise in horse-radish, phellandrium aquaticum, and generally in all the plants which grow in fresh water. It was noticed that the plants which are found in strong currents or large sheets of water, contain more iodine than those which grow in stagnant pools. M. Chatin draws certain conclusions, from which it would appear that therapeutical applications of these properties should be made.

Utero-Vesical Fistula.

M. JOBERT (de Lamballe), surgeon to the Hotel Dieu, of Paris, has lately published a case of fistula where the abnormal communication existed between the upper part of the neck of the uterus and the bladder. This lesion had resulted upon a labour, artificially induced, and the patient could of course not retain her urine. The operation consisted in paring the edges of the rent and applying sutures; the case was very long and tedious, but after about four months' care the infirmity was remedied. Direct communications between the uterine cavity and the bladder are rare, and this case shows, according to M. Jobert, that fistula, wherever situated, should be treated by paring and suture.

Hare-lip in France.

It is, perhaps, not generally known in this country, that French surgeons are in the habit of operating upon children for this deformity a few days after birth. The justly celebrated Paul Dubois is a great advocate of this practice, which, it is contended, is extremely advantageous, as children, at that early period, do not struggle; union is obtained very rapidly, and the little creatures cry but little, take the breast well, and do not seem to suffer much. M. Guersant, surgeon to the Children's Hospital, stated the other day, before the Surgical Society of Paris, that out of seven children operated upon almost immediately after birth, he failed only once; whilst out of the same number of children one month old, he failed five times. He attributes this disproportion to the fact, that newly-born children can do without the breast during four days; (?) they thereby are not apt to tear open the sutures by efforts at suction.

Hydatid Cysts of the Liver.

Dr. GOYRAND, of Aix, lately sent a memoir to the Surgical Society of Paris, on hydatid cysts of the abdomen. He condemns exploring punctures, as they may give rise to an effusion into the peritonæum, and advises the tumours to be opened with caustic. One case is mentioned where, at the death of the patient, it was found that the cyst was lodged in the spleen, which organ it had completely invaded, so much so, that the spleen, which had become very thin, was forming a mere bag for the cyst. A second case relates to a patient, now alive, who was afflicted with an hydatid cyst in the liver. The tumour had burst on three different occasions, and at long intervals. In 1835, the evacuation took place through the bronchi and larynx, after a severe fit of coughing; in 1845, the tumour, which had grown again, burst into the stomach, and the patient vomited the hydatids; and in 1848, the same tumour opened into the bowels. Though the patient is now in a tolerable state of health, it is doubtful whether he will not have a relapse.