her history of the case, I made a vaginal examination, which revealed to me the fact of the existence of acute tenderness throughout all that portion of the sexual organs which is susceptible to an examination by the touch. But what was of the chief interest to me was this. The uterus had been raised from its ordinary position and rested directly upon the summit of the bladder, and this organ was depressed so that the cervix uteri could be felt low down, near the base of the former, and between the womb and finger were the walls of the bladder.

This is to me a singular case, and in all my experience as a gynecologist, I have never met with anything like it.

Therefore, two questions arise in my mind pertinent to this case. First, will it be expedient to try to bring back to its natural position, the displaced womb? Second, if it be expedient to do this, what will be the proper course to pursue?

Phoenix, R. I., Aug. 17, 1872.

DISLOCATION OF THE LOWER END OF THE ULNA FORWARDS.

By JOHN H. GILMAN, M.D. Harv.

THIS rare accident occurred to M. B. D., July 23, 1872, while engaged in fixing a loom in the boot mill of this city. The left forearm, being between the spokes of a wheel when the loom was set in motion, was violently turned outwards. On examination, the hand was found in a state of fixed supination; on looking at the back of the wrist, there was a marked depression of the ulnar portion, and an unusual prominence of the corresponding portion on the frontal aspect of the wrist. Reduction was effected by grasping the hand and making extension (counter-extension being made at the elbow), slightly pronating the hand and raising the bone into place with the right hand.

Lowell, Aug. 6, 1872.

TWO HOSPITALS FOR ENGLISHMEN exist in Paris. The first, Galignani's Hospital for the English and Americans, was founded in 1865 by Anthony and William Galignani, who endowed it with a gift of half a million of francs. This hospital is situated at Neuilly, and contains twenty beds for each sex. Secondly, Sir Richard Wallace has founded an hospital of twenty-four beds near the Porte Maillot. It is nearly always full, the Parisian jockey furnishing a considerable contingent of surgical cases.

Progress in Medicine.

REPORT ON ELECTRO-THERAPEUTICS.

By D. F. LINCOLN, M.D., Boston.

A New Phenomenon of Reaction.—Eulenburg (*Berliner Klin. Wochenschr.*, 1872). The "reaction" of a motor nerve, which occurs during the opening and closure of the galvanic current, is well known. One pole is placed on the nerve to be tested, and the other on an "indifferent" point, and muscular contractions of certain intensity are produced by making or breaking the current. If, now, the second pole be placed, not upon an indifferent point—that is, one comparatively free of nerves—but upon another nerve belonging to the same trunk, plexus, or segment of the cord, the reaction of the nerve under the first pole will be much greater than before. This experiment has been repeated by Eulenburg many times upon healthy men.

Galvanization of the Head.—Hitzig (*Berliner Klin. Wochenschr.*, 30, 1872). This is chiefly effected by means of his "unpolarizable electrodes," applied to the spot between the lobe of the ear and the mastoid process, on each side of the head. Six cells (Daniell) cause giddiness and uncertainty as to position (*Verhalten*) of body; these sensations commence directly upon closure, and last for a short time after opening the current. With a stronger current, external objects appear to move. With a still stronger, the person leans over towards the anode; at the same time, his eyes execute certain nystagmoid movements, jerking quickly towards the cathode, returning slowly to equilibrium, and again jerking; besides which there is usually a rotation movement in the same direction. When this current is opened, these phenomena cease, the body leans towards the cathode, and external objects seem to move in an opposite direction. There are many variations, in different individuals, both in degree and kind.

In explaining these phenomena the following considerations are offered. The direction of the movements obviously depends upon that of the current. The sagittal direction, from occiput to forehead, is not adapted to produce the symptoms; and, obviously, when the sagittal direction is employed, all the pairs of organs within the brain are *symmetrically* affected, the right hemisphere, the right corpus striatum are under conditions similar to the left hemisphere, or corpus

striatum, &c. But if the current be passed transversely through the brain, then the left half of each pair of organs is under the influence of one pole—the pole, namely, which is applied to the left auriculo-mastoid depression; and the right half is under that of the opposite pole. Now the organ for the perception of muscular sensation is, doubtless, an organ with a right and a left half, corresponding to the two sides of the body, and the effect of electrotonus in heightening the susceptibility of one side, and diminishing that of the other, is the “falsification of the muscular sense,” with a disturbance of the true equilibrium of the two lateral halves of the body. Hence, an unconscious but voluntary movement of one-half of the body, to restore the (imaginarily) lost balance, the effect of which is an actual loss of balance. *Giddiness* depends upon these processes, and also upon certain optical impressions which occur in consequence of them.

Noë's Thermo-Electric Pile.—Dr. Schwanda (*Wiener Med. Presse*, 29 and 31, 1872). This instrument consists of twenty pairs of metal, composed of strips of copper, and an alloy of which the composition is not stated. It is conveniently portable, being in the form of a cylinder, about $4\frac{1}{2}$ inches in diameter, and the same in height; its weight is twenty ounces. When it is connected with a faradic coil, and the spirit-lamp is lighted, half a minute is required before it sets the machine working. For this purpose, its value is stated by Schwanda as equivalent to five Leclanché elements, or one Bunsen; or as somewhat superior to the two zinc and chloride of silver elements of Gaiffe's battery. Noë says that five years' use has not impaired the activity of his instruments. Its electro-motive force equals from 1.24 to 1.36 Jacobi-Siemen's units, that of a Daniell's cell being = 12. The essential resistance = 0.05. Its internal resistance does not increase with the increase of temperature, and of electro-motive force. If this instrument should prove durable, it would be a very handy thing for office-practice; it is said to be very cheap, as compared with the instruments made here.

A peculiar form of Electro-Cautery.—Frommhold (*Wiener Med. Presse*, 28, 1872). In certain obstinate cases of neuralgia of the leg, especially those affecting the peroneus and tibialis nerves, in which the galvanic and faradic currents have failed, the negative pole, armed with a metallic electrode an inch square, is placed on the peripheral end of the nerve affected, and a

current is passed of strength sufficient to produce a few little round spots of destruction under the electrode. This process requires five or six minutes, and is painful, though not violently so. The necrosed spots take from three to five weeks to heal. The application is made daily, each time a little higher up, till the capitulum fibulæ is reached. Twenty or twenty-five sessions have cured neuralgia of some years' standing. The positive pole is to be put upon the point of origin of the sciatic; destruction of cutis need not occur under its influence.

Basedow's Disease.—Dr. Franz Chvostek (*Wiener Med. Presse*, 23, 27, 32, 1872). The cases mentioned by Chvostek are very interesting, and present decided evidence of the value of the constant current. The treatment consisted mainly in galvanizing the cervical sympathetic and the cord in the ascending direction. Fuller notice is deferred, as the series of cases is “to be continued.”

Weak Galvanic Currents.—Léon le Fort (*Gaz. Hebd.* 17 and 19, 1872), Groh, of Olmütz (*Die Elektrolyse in der Chirurgie*, Vienna, 1871). The current in question is derived from three or four Callau-Trouvé elements, which are a sort of Daniell's cell without diaphragm; in fact, a “gravity battery.” It is allowed to act for hours or days uninterruptedly. It has been found beneficial in paralysis of the hand and forearm, following contusion of the wrist; in contraction and atrophy of the calves, and in paralysis and atrophy of one deltoid.

Groh has cured myxosarcoma of the leg by the almost uninterrupted application, during fifteen days and nights, of the current from four Daniell's elements. He considers the results of the method very remarkable. An osteosarcoma of the femur was also cured by this treatment, which occasions very little pain or trouble. Several fine needles are used.

Vasomotor Neurosis.—Fr. Chvostek (*Oesterr. Ztschr. f. Prakt. Heilkde.*, 3 and 4, 1872). An officer, aged 27, had rheumatism of several joints, on recovery from which he remained subject to the following peculiar affection, viz.: Every evening, red spots, accompanied with a burning sensation, appeared on the wrists and fingers, followed in half an hour by a slight but painful swelling of the joints in these members, and, later in the night, by sweating. Fever was not present. By daytime, these symptoms had disappeared. The pulse was permanently accelerated, the

thyroid was enlarged, and the entire nervous system was in a state of heightened irritability, which became most manifest when the third and fourth cervical vertebrae were electrized, and when pressure was made upon the superior cervical ganglion of the sympathetic. Quinia was tried without success. Galvanization of the cervical sympathetic and of the spinal cord was practised for several months, and great improvement was obtained.

Writers' Cramp.—Dr. Poore, of Charing Cross Hospital (*Practitioner*, September, 1872). The case occurred in a young and healthy man, who used to write about nine hours every day in a counting house. The disease had lasted two years when Dr. Poore saw him; he had been treated by "galvanism," friction, douches, sea-bathing, voyages, &c., with very little benefit. The right arm and shoulder were the seat of an aggravated chorea, which was increased when the patient's attention was called to it. There was no paralysis or wasting, and no anomaly of sensation. The author believed he saw an analogy to stammering, and determined to employ the treatment found curative in the latter affection, namely, regular orderly drill of the muscles. This was impossible to the unaided will, by reason of the rigidity of some muscles and the lawless action of others. A current, commencing with twenty-three cells (Weiss), was therefore passed through the belly of each affected muscle in turn; and, while in the state of consequent relaxation, each one was exercised in light gymnastics. Rest, and bromide of potassium, formed part of the treatment; but the improvement in writing was manifestly, and in a most extraordinary manner, connected with the use of the battery, as above stated. After daily treatment for six months, he now writes with the greatest ease, though not with his former neatness.

Strychnia as an Adjuvant to Galvanic Treatment.—Richard Barwell, F.R.C.S. (*Lancet*, July 6, 1872). Barwell uses a strong solution of strychnia—viz., two per cent.—for injection into the affected muscles; as to the quantity, he says that he could fearlessly begin by giving even children five times the dose hitherto considered as the maximum, namely, five half-minims, or one-twentieth of a grain. This plan, pursued every two or three days, is a powerful adjuvant to the galvanic treatment, and is also applicable as a preparation for the latter in cases where the muscles do not respond at all to galvanism. The in-

ternal administration of strychnia does not appear to act in the same manner. Success has been obtained in cases of facial paralysis, paralysis of the wrist (independent of syphilis or saturnism), and others, after months of galvanism, and the internal use of strychnine and other remedies had failed.

Extra-uterine Fœtation.—Dr. J. G. Allen (*Transactions of the Philadelphia Obstetrical Society*, in *Amer. Jour. of Obstetrics*, May, 1872). Three cases are reported, in two of which the current from an ordinary electromagnetic machine was applied, with the result of stopping the growth of the tumors. The diagnosis was confirmed, in one case, by Drs. Agnew and G. Pepper, the latter of whom made repeated examinations, and finally discovered the existence of ballotement. The application of the current was made, in this instance, about eight times; the poles were placed on the projecting portions, in the vagina; at the third application, the woman "felt a motion as of something turning over in the abdomen." This case occurred in 1869, and the patient is at present in good health.

[If we grant the correctness of this diagnosis, it seems not too much to concede that fœtal development may have been arrested at the tenth week by the direct application of a current described as "violent."]

Affections of the Skin.—Onimus (in *Centralblatt f. d. Med. Wiss.*, 32, 1872), G. M. Beard, M.D. (*Amer. Jour. of Syphil. and Dermatology*, Jan., 1872). Onimus describes certain affections brought on by the application of the continued current. They are not caused by the undue strength of the latter, or by any unusual delicacy of the integument; they are unfavorable symptoms, in-respect to prognosis. They consist in grayish, depressed spots, which appear soon after the electrodes are applied, and soon turn to blisters, which burst and leave a blackish base. They are stated to be observed in "some cases of disease of the nervous centres or peripheral nerves." [The phenomena in question may be produced in healthy persons; their prognostic value, therefore, depends upon the *undue facility* of their production. I.]

Beard has treated a large number of cases of skin disease at the Demilt Dispensary, New York. He considers that the results prove the high value of electricity in many cases, which under ordinary treatment are obstinate or incurable. The cures are at least as permanent as those obtained by the accepted methods; and the treatment may succeed after the ordi-

nary methods have partially or entirely failed. Galvanism is the best form. In *eczema*, there is nearly always direct relief from distressing pain, and ultimate cure. The negative pole is applied to the diseased surface; the negative, also, is more useful than the positive in *psoriasis*, though in the latter both electrodes are frequently used at once; the disease is curable, wholly or in part, probably in a majority of cases. Of *pityriasis* one case seems to have been benefited. The itching of *prurigo* is often completely relieved in a few minutes by dry or moist faradization; which, "when perseveringly used, may cure." *Acne* has been made worse, in one case, by galvanism. Lupus, condylomata, and tubercula, are mentioned as suitable for treatment by electrolysis (with needles). Usually the positive pole is planted upon the region of the principal nerve supplying the part, and the negative is held to the diseased skin or made to glide slowly over its surface. When the disease is pretty general, "an electrode is sometimes put on each limb," to allow the current to run through the body. Broad electrodes, from two to four inches in diameter, are preferred.

White Atrophy of the Optic Disc.—R. J. Pye-Smith (*Brit. Med. Jour.*, May 18, 1872), Donald Fraser, M.D. (*Glasgow Med. Jour.*, Feb., 1872).—Mr. Pye-Smith gives six cases in which the affection was well marked, and which were treated by the galvanic current from five to twenty-three times, with the result of decided (but slight) improvement in two cases, doubtful improvement in two, no improvement in one, and *harm* in one. The latter case was complicated with the results of syphilitic inflammation. As to the mode of administration, it was rather vigorous than otherwise; from ten to twenty Daniell's cells were used, the negative pole was applied behind the ear and the positive upon the closed eye, and the current was alternately admitted and shut off, at intervals of eight or ten seconds, for about a minute. Mr. Kiddle has treated twelve other cases by the galvanic current in a similar manner, but the results are entirely negative.

Dr. Fraser's case is very carefully reported, and deserves fuller mention than we can give it. The subject was a weaver, aged 59, whose eyes had been failing for five years, owing to over-taxing of the sight. The ophthalmoscope showed that the outer two-thirds of the optic disc in both eyes were partly white and glistening, and the inner third hyperæmic; the retinal veins enlarged and tortuous, and the arte-

ries diminished in number and calibre; alongside some of the vessels were to be seen the white lines said to be characteristic of neuritis descendens. He read slowly, and with effort, No. 20 of Snellen's test-types, at four inches with the right eye, and eight with the left. Bichloride of mercury, with iodide of potassium, was used for a month; sight very little better. Then, a current from six Stöhrer cells was passed through his temples for about twenty seconds. On testing his sight, before and after this operation, it was found that he could read 20 Snellen at $7\frac{1}{2}$ and $9\frac{1}{2}$ inches respectively; an improvement of two inches within as many minutes. The current was applied daily for a month, then less often, in all three months, with a steady gain, so that at the end of this period he could read 5 $\frac{1}{2}$ Snellen as easily as he once read No. 20. The optic disk still presented a marked condition of atrophy, but there was an improvement, which was most marked in the case of the retinal circulation, the arteries being larger and the veins smaller and much less tortuous. The number of cells employed was limited to *six*, and the time never exceeded thirty seconds. The points of application were the temples—the long axis of the head—the forehead and tongue—the cervical sympathetic; but the results never seemed so good from the latter method, though *eight* cells were used.

Very similar beneficial results, from the subcutaneous injection of strychnia, have been noted by Nagel, of Tübingen, Werner, of Sangerhausen, and Chisolm, of Baltimore. The same is true in some cases of peripheral atrophic paralysis of muscle. The coincidence ought to throw light upon the mode of action both of galvanism and of strychnia.

Electrolysis of Tumors.—Geo. W. Callender, F.R.S. (*Brit. Med. Jour.*, Feb. 10, 1872), J. Althaus, M.D., F.R.C.P. (*Ibid.*, March 16, 1872), M. Benedikt (*Wiener Med. Presse*, xii. 53), Prof. Billroth (*Berliner Klin. Wochenschr.*, 28, 1872), Paul Bruns, Asst. in the Surg. Clinic at Würzburg (*Ibid.*, 27, 28, 1872), Lawson Tait (*Trans. of Clin. Soc.*, London, vol. iv., 1872), Girard (*Centralblatt*, July 6, 1872), C. Hilton Fagge, M.D., F.R.C.P., and Arthur E. Durham, F.R.C.S. (*Med. Chir. Trans.*, 1871), Wm. R. Whitehead, M.D. (*Am. Jour. Med. Sci.*, July, 1872), T. Holmes, F.R.C.S. (*Lectures delivered before the R.C.S.*; in *Lancet* and other papers). Callender describes three cases of *Recurrent Fibroid*, in two of which electrolysis by means of needles proved of no decided value. In a

third case, excision was practised, but "before the large wound from the operation had closed, one or two isolated nodules, growing up in the granular surface," appeared; these were transfixed by a needle, connected with the positive pole of twelve cells, the negative being applied to their surface; after two applications, "the entire mass, about the size of a marble, seemed to melt away and disappear." He considers that the current may be very useful in such *secondary* and as it were subsidiary operations. He was struck with the thorough manner in which the sloughing of the growth took place in the immediate course of the electric current; this was less marked around the negative than the positive pole.

Althaus considers that the failure to obtain a radical cure was due, in these instances, to the insufficient strength and duration of the current. He quotes a successful case by Ehrenstein.

Benedikt, also, lays stress upon the necessity of prolonging and intensifying the application in the case of cancer. He narcotizes the patient, or injects morphia, and the operation is continued for an hour or longer. He thinks the application of electricity may actually accelerate the growth of such tumors, an opinion shared by other observers. Billroth, for instance, found that in soft tumors, especially medullary lymphomata, the constant current sometimes did harm by inducing inflammation; an increase in the vascularization and the rate of growth, and consequently, a more rapid softening, were the consequences of this. He, however, appears not to have used *needles*; and the strength of the current is not specified.

Bruns gives a valuable analysis of the reported cases of *Naso-pharyngeal Polypus*, nine in number, treated by electrolysis. Seven resulted in complete cure. One patient died from intercurrent typhus, and one is still under treatment. Of those cases kept under observation, the cure has remained permanent in every instance, the periods varying from five months to two years, while in three cases relapses had previously occurred. In two cases, there was no other possible mode of operation, and the life of the patient was in serious danger.

The following general conclusions are offered by Bruns. He admits that they are still open to revision, the whole subject being by no means settled.

Indications for the Operation.—These are, at present, as little established for this

as for most other forms of tumors. An unsuccessful case, by the author, is reported in Nos. 12 and 13 of the same journal for 1872; here, thirty applications had been made. The present series of cases would justify, as far as they go, the assumption that the ordinary fibrous character of the structure is a circumstance predisposing to the success of the operation; for in all of the successful cases in which the character is stated, the structure was purely fibrous. Two of the nine are reported from the Tübingen clinic; in the unsuccessful one, the structure was in part fibrous, in part rich in cells and approaching the character of a sarcoma. Perhaps we may infer that the current employed was too weak to destroy a form of tumor which was in a condition of active growth; besides, the immediate neighborhood of the brain imposed a limit to the strength which it was deemed safe to use.

It is important to be able to increase the strength of the current at will, after introducing the needles. The negative needle alone, or both the positive and the negative, may be inserted. A glass or rubber tube is of use as an insulator; and when the needle has to be pushed through the soft palate, its shank ought to be insulated by a coating of varnish. The positive needle may be made of zinc, in which case the caustic action of chloride of zinc is added to the ordinary electrolytic effect. Tripier's fear that the basis of the skull may be attacked by the electrolytic process, is not justified, for it is strictly localized around the needles. Tripier's plate-shaped electrodes are dangerous, inconvenient, and less active than the needle.

Too powerful a current may certainly affect the brain; or may cause temporary increase in the size of the tumor, with partial gangrene of its substance, infiltration of the adjacent lymphatic glands, and fever. Groh's views regarding the use of very mild currents (cited above) are quoted with a certain assent; and the author adds, that one of his cases was cured by one hundred and thirty sessions, the average strength of the current being eight cells of Frommhold. Of this case it may be further remarked, that the polypus had been extracted, December, 1868, by the wire loop; a remnant sprouted again, and in May, 1869, it had grown in such a direction that its extirpation would have required the resection of the upper jaw.

Mode of Action.—In the author's view, this consists in successive destruction of tissue: (a), by gangrenous death of the

parts lying close to the needle; (b), by ulceration in the vicinity of these parts. It is also very probable that there is a "catalytic" or "dynamic" action; in a case observed by Ciniselli, parts not directly in contact disappeared, even after cicatrization was complete.

The technical difficulties of the operation are not great. The danger is *nil*, if care be taken. Bleeding does not occur. Pain is very moderate, if care be used. Relapses seem to be excluded.

The objections are, the cost of the operation, the amount of time required, and the necessity of having an "electrician" to attend to it.

Mr. Lawson Tait treated a case of *Encephaloid Disease of the Femur* by electrolysis, with the result that complete relief from pain, for four or five days, followed each application except the first. The intensity of the pain had been so great that it had been found necessary to administer hypodermic injections of from 20 to 24 grains of morphia daily. The size of the tumor was but slightly diminished, the treatment not having been adopted till late in the case.

Eight cases of *Hydatid Tumor of the Liver* are reported by Dr. Fagge and Mr. Durham, in which electrolysis was performed by the method of Althaus; two needles being introduced into the sac, one or two inches apart, and both connected with the negative pole of a battery of ten cells, the positive being applied in the form of a wet sponge to the skin between the needles. Duration of the operation, usually ten or fifteen minutes; in one case, twenty-five minutes. Slight febrile reaction occurred in all the cases but one, lasting about four days.

In only one instance does any doubt remain as to the completeness of the cure. Time seems to be required to test this point. The authors remark that "in each case in which we had the opportunity of examining the patient from three to six months after electrolysis, we found, as a rule, that the tumor had very manifestly decreased in size. In some instances no trace of the disease could be discovered."

The diagnosis was inferential, as no liquid was drawn by tapping from the tumors. But in each case the two needles could be made to move about and rub against each other, after their introduction into the sac. It is not at all certain that acupuncture, without galvanism, would not have effected similar cures. As regards paracentesis, however (which will in many cases effect a

cure), it deserves to be noted, as an important disadvantage, that *suppuration* is apt to be set up, an event which does not occur from electrolysis.

Dr. Whitehead treated a case of *Stricture of the Rectum*, which was due to syphilis. The sessions were four in all, and extended over a month's time. Each one lasted twenty or thirty minutes, with a maximum current from twenty-three cells (zinc-platinum and zinc-copper). The anode was placed upon various parts of the hip; the cathode, in the form of a brass cylinder with rounded tip, was applied, at first to the lower part of the stricture, and subsequently within it.

There was little pain. After each application there was decided and immediate dilatation; but two months later the stricture was tight as before. No treatment seems to have been used to follow up and supplement the electrolysis. This was doubtless owing to the circumstance that the person was a Dispensary patient, and (like the majority of that class) absented herself at the critical time.

Speaking of the treatment of *Aneurism*, Holmes classifies electro-puncture with manipulation, the introduction of foreign bodies into the sac, and coagulating injections, as justifying confident hopes that they may come to be regularly used in classes of aneurism, in which they have already succeeded, though only occasionally, and, as it were, hap-hazard.

Cases of growing aneurism, affecting the thoracic aorta, or the innominate, or the roots of the left carotid, or subclavian within the thorax, or affecting the aorta and one or more of its primary branches simultaneously, are to be treated in three ways: 1. By internal or medical treatment; 2. By distal ligature; 3. By galvano-puncture. (*Lancet*, June 8.)

A case is described in which Mr. Holmes assisted Dr. Althaus. Four needles were inserted. The current from 25 cells (small) was passed, the needles being all attached to the same pole, and the direction being alternated every five minutes. Duration, twenty-five minutes. Death in ten days, with diffused inflammation of the cellular tissue all the way up the neck. (*Lancet*, July 20.)

In Drs. Duncan and Fraser on "electrolysis in aneurism," a very excellent description is given of an experiment in which the process of electrolysis was watched in the femoral artery of a dog.

"Experiment has also shown that this electric action, this coagulation of the mass

of the blood, in which there is no mechanical separation of the fibrine from its other constituents, is capable of producing the total and final cure of an aneurism—an additional proof, if an additional proof were required, that the slow method of coagulation by which what Broca denominated “active” clot, is generated (*i. e.*, the fibrine separated from the other constituents, and deposited in laminæ), is not the only, though it may be the safest way of curing an aneurism.

“On the other hand, it must be allowed that there is at present much uncertainty as to the value of the method, and great ambiguity as to the immediate effects of any given operation; that those most conversant with the electrical processes and their effects when applied to the living body, are far from being agreed as to such important details as, which pole it is best to use; what is the best apparatus; whether coagulation should be produced rapidly or slowly; whether the action should be long continued or not, frequently repeated or almost solitary; and whether the metallic needles should or should not be coated over to defend the superficial parts from the electric action. But such details will be gradually cleared up as our experience of the method increases. As far as my limited practical acquaintance with the subject goes, I should incline to the belief that the action of both poles is desirable, and that the positive pole ought not to be used too long, especially if the battery is a powerful one; that a moderate action should be employed, and that it should be continued for a considerable time (under anæsthesia), until a very decided physical effect has been obtained; and that the soft parts covering the tumor should be defended by coating the stalk of the needle with vulcanite.”

As an illustration of the uncertainty at present attending this operation, he speaks of two cases in which he has seen the pulsation, at first greatly reduced by electrolysis, afterwards return nearly to its former violence (*Lancet*, Sept. 7).

Tracheotomy.—Verneuil (*Lancet*, May 18, 1872). In a case of *tracheotomy*, Verneuil employed the “galvano-caustic knife,” the blade of which was heated to a *dull red*—for “white heat provokes hæmorrhages”—and the operation was performed as with an ordinary knife. Scarcely any bleeding followed; the pain was very slight, and the wound did well.

Amussat, in 1870, ran a platinum wire for the distance of two-thirds of an inch underneath the integument and into the tra-

chea; then applying the current, he made the wire burn its way out; no hæmorrhage occurred. The wound healed in 28 days.

Granular Urethritis.—Dr. Byrne (*Proc. of N. Y. Obstetrical Soc., in Journal of Obstetrics*, May, 1872). A woman had suffered for three years from the above affection, with incontinence of urine; various topical applications produced no beneficial effect; the patient was therefore etherized, and a conical electrode burner was passed the entire length of the urethra, the electrode being connected with a galvano-caustic apparatus. Five days after, an eschar came away. The patient's sufferings were not at all aggravated by the operation; one week subsequently all pain ceased, and she was able to retain the urine perfectly.

MONS. LEFORT has made analyses of water taken from wells in the neighborhood of graveyards, and finds the water of wells situated 150 feet from graveyards to have a sweet, fetid taste, and upon evaporation by heat, a thick grayish residue remained, which had a strong empyreumatic odor. Upon adding reagents, carbonic acid was given off, and salts of ammonia were thrown down. He thinks that no bodies of men or animals should be buried nearer than 300 feet, to any well from which water is taken for household purposes.

A PROFITABLE PATIENT.—M. Latour, referring to the death of M. Cheresh while still young, mentions a singular patient who contributed to his income 14,600 francs per annum. This person, a well known merchant, had a terrible fear of dying, and besought Cheresh to pay him a visit while in bed, every day at 9 A.M., his fee being 40 francs per visit. Cheresh consented, and for several years the arrangement was carried out. During the last years of his life this patient, a very old man, became really ill, and exacted, first two, then three, and finally four visits daily, always paying his 40 francs for each visit. (*Union Med.*)

THE *Med. Times and Gazette*, in speaking of the reports of the American Army, Medical Museum, after adding a word in admiration of the splendid way in which these reports are prepared and issued, says: If this excellence is the result of Republicanism we are almost persuaded to become followers of citizen Dilke.