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THE MEDICAL CHRONICLE.

VOL. I.]

MONTREAL, SEPTEMBER, 1853.

[No. 4

ORIGINAL COMMUNICATIONS.

ART. XIV.—*A Lecture on the Diastaltic Spinal System.* By MARSHALL HALL, M.D., F.R.S.L. and E., Foreign Associate of the “*Académie de Médecine*” of Paris; &c. &c.

To the Editors of the Medical Chronicle.

GENTLEMEN,—The following lecture, with variations suggested by each occasion, was given to my medical brethren at Quebec, Montreal, and Toronto, in July and August, 1853. It presents an outline of investigations to which I have devoted a quarter of a century, and I trust it will not fail, in its printed form, to interest the student of medicine, the physiologist, and the practitioner.

One idea frequently recurs to my mind. It is, that our profession will take the rank to which it is entitled, when that is achieved for it which was achieved for astronomy and chemistry, when they were rescued from the superstitions of astrology and alchemy; that is, when it is raised from its manifold empiricisms—its Mesmerisms and its Hahnemannisms—to its true dignity of a noble and elevated science,—when physiology is our guide in the medical ward and in the sick room.—I am, Gentlemen, yours faithfully,

MARSHALL HALL.

LECTURE.

Gentlemen,—My first object on the present occasion is to show you the few and simple experiments on which the establishment of the Diastaltic Spinal System is founded. My second will be to demonstrate the application of the principle of this system to the study of physiology, and of the pathology of convulsive diseases, and especially of epilepsy.

The whole class of the acts of ingestion and of egestion in physiology, and the science of Obstetrics as related to one branch of these; and the whole class of convulsive diseases in pathology, are part and parcel of this spinal system. The principle of the spinal system is as Ariadne's web in regard to these departments of medical science.

With these very brief remarks I proceed to experiments:—

The first of these consists in dividing the cerebrum, the cerebellum inclusive, from the medulla oblongata. I thus separate the centres of the cerebral and the spinal systems, and consequently the systems themselves, their functions and their phenomena, from each other.

Now perception and volition, and voluntary and spontaneous movements, the allies of these, reside in the cerebral system.

I make the division to which I have adverted, either by passing a couching needle, so as to sever the cerebrum from the medulla oblongata, or by removing the head at once, at the same point, by a pair of sharp scissors.

There can, of course, be no manifestation of cerebral phenomena in the head, even supposing feeling and perception to exist. There can be no manifestation of cerebral phenomena in the remaining portion of the animal, because the cerebrum is removed or separated from it. What phenomena then remain in it?

If sensation, and perception, and volition are functions of the cerebrum exclusively, there can be no phenomena dependent on these; that is, there will be no voluntary, no *spontaneous* motion, no movement the result of *design* on the part of the animal. This fact presents us with the *experimentum crucis* in regard to the questions—In what part of the nervous system do perception and volition reside? Are they limited to the centre of the cerebral system? Or do they extend to and exist in that of the spinal system also?

There are two modes of irrefragably replying to those questions. The first consists in an appeal to the human subject in cases of injury separating the influence of the cerebrum from that of the spinal marrow. Is there perception or volition in any part from which the influence of the former of these is removed? The second consists in an appeal to experiment. Is there spontaneous motion in any part of an animal from which the influence of the cerebrum is separated, that of the spinal centre alone remaining?

I have recently, in July, 1853, had the opportunity of examining, with Dr. Small of Toronto, a patient perfectly paraplegic to perception and volition *below* a certain line a little below the margin of the ribs. Accepting the testimony of this patient, the proposed question is decided negatively.

In similar instances of injury or disease of the spinal marrow, the same fact, the same proof of the entire absence of perception and volition below the destroyed portion (as to function) of the spinal centre, have existed.

I take a frog and pass this needle between the cerebral and spinal centres; the animal is instantly deprived of movement. But this is the effect of *shock*—we must wait a few minutes. Now, you observe that I

can, by an external stimulus *excite* movement in both anterior and inferior extremities; the effects of shock have passed off. Still, as you perceive, there are no *spontaneous* movements.

I will now place the animal in a position which would be most painful, if the faculty of perception remained. Still you see that, when it has once become tranquil, the animal, if perfectly unexcited, moves no more. There is no spontaneous motion.

But now observe how slight an excitement will develop movement. I take a toe between my thumb and finger, and gently compress and irritate it. There are vigorous movements enough. Some of these movements much *resemble* voluntary movements, and so have misled some experimenters into an erroneous conclusion, that perception, design and volition still exist in the decapitated animal. Such phenomena are seen in the frog, and have recently been frequently displayed in the *alligator*.

I now place this vigorous frog, which has scarcely lost any blood from the operation of separating the cerebrum from the *modulla oblongata*, *rudely* on the back. You see the animal turn briskly on the abdomen, its natural position.

I said I placed it on its back *rudely*. In doing this I *excited* the *eisodic* or incident dorsal nerves, by the rude contact with the table. I now place it in the same position softly and gently. You see that it retains that position; and this, I may add, it will do, without alteration, *if all excitement be avoided*. You may sketch its present form, leave it for the night, and come to-morrow and find that form unchanged, all vital phenomena being extinct. Yet if I irritate the animal at this part, near the sphincter ani, it will, as in similar experiments with the *alligator*, raise its foot or feet so as, apparently, to remove the source of irritation. How is this fact to be explained, except on the principle of consciousness and volition?

In every voluntary act there is the concurrence of *spinal action* with volition. This spinal action coincides and co-operates accurately with that act, and when this act of volition is absent, the spinal action assumes precisely the same form as before. Thus the decapitated fowl will fly; the decapitated ostrich, as in the case in which the Emperor Commodus struck off its head by means of a crescentiform arrow, runs on; the decapitated triton, tortoise, or snake, will slowly walk or move onwards.

Evidence of this spinal action seconding volition is afforded by some pathological facts. In writing, the thumb, in one case, is carried inconveniently, so as to make painful pressure on its edge. There is lost coincidence of action.

There is nothing more important and interesting than the principle of

associated reflex action. It is on this principle, that inspiration and expiration are linked together, constituting respiration; and that all the acts of ingestion and of expulsion are finished acts, and not mere actions. It is in this manner that certain excited movements are constituted into acts of flight, of leaping, or running, &c. It is in this manner that reflex acts come to resemble voluntary acts, and acts of design.

Another principle is called into action in these latter cases. In the perfect animal, the function of volition is accompanied by spinal action, reflex or direct; the two principles of action coincide with each other; and when one, as volition, is removed, the other or remaining one performs an action similar to the perfect or more complicated one; the wings excited, perform the act of flight; the feet excited, perform the acts of leaping or running. The decapitated fowl flies, the decapitated ostrich runs.

If, as I have said, in the decapitated frog the parts near the sphincter ani, are irritated, the two feet are frequently drawn upwards, as if to remove the cause of irritation. Similar facts have been observed in the decapitated alligator. Such facts have been recently mistaken by several physiologists for acts of volition, and have been supposed to denote the existence of sensation and volition in the isolated spinal marrow. Such, too, was the erroneous opinion of Legallois. I have already referred to the facts observed in the case of perfect paraplegia in the human subject, and to the absence of spontaneous movements in decapitated animals, as affording its refutation.

But I must not detain you longer with this discussion, rendered necessary by the recent experiments on the alligator, to which I have referred, and which I purpose repeating during the next winter; not that I doubt their accuracy; it is their rationale that I question, and I wish to see whether true spontaneous movements occur in that animal when decapitated.

I now beg your attention to the facts of direct and reflex diastaltic spinal action. I irritate the upper portion of the spinal marrow. You see what energetic convulsive movements are induced. These movements are, of course *direct*. I now excite the skin of the toe. *Similar* but *reflex* movements are the consequence. These events may be justly regarded as *TYPES* of the direct and reflex forms of epilepsy. And thus the paths of the physiologist and the physician meet!

I now proceed to point out distinctly the anatomical course of these reflex actions. I irritate the skin, and the limb and other limbs move. Now in the skin is the origin of the nervous arc in these reflex actions. This arc, originating thus in the skin, proceeds along the femoral and lumbar nerves to the spinal marrow; thence along the same nerves (see

the isodic and exodic nerves are contained in the same neurilemma), to the muscles, to be variously excited to contraction. How near is this to a circulation of nervous force!

You may destroy this arc by dividing it in any part of its course. I strip off this portion of skin of the foot and irritate the toe; all reflex action is extinct. I now divide the femoral or lumbar nerve. There is again the absence of all reflex action. Lastly, I destroy the spinal centre; the same result!

This is demonstration: and it is the demonstration of a totally new kind of anatomy. Such a diastaltic nervous arc had not been imagined even. Nevertheless, every act of ingestion and of egestion in the animal economy is a diastaltic spinal act, through such a nervous arc or such nervous arcs as this!

The spinal system is not only the nervous agent in the acts of ingestion and of egestion, but it presides over all the sphincters, and therefore over retention and exclusion: in this manner the iris and the eye-lid; the larynx, the pharynx, and the cardia: the sphincters ani and vesicæ and vesiculæ seminalis, and of the Fallopian tubes and uterus, are under the constant influence of this system.

It is precisely on the muscular system thus subjected to the spinal, that the phenomena of convulsive diseases manifest themselves; and thus the neck, the larynx, the respiratory muscles, the expulsors, &c., are each and all singled out and made the seat and agents of this class of diseases; and hence laryngismus, dyspnœa, dysecpnœa, globus, emissiones seminis, urinæ, stercoreis; &c. &c.

I must here be allowed to state in the most pointed manner, that the principle of the diastaltic spinal system, or that of all the acts of ingestion and of expulsion in the animal economy is, of course, that of parturition or the expulsion of the fœtus; and as a consequence or corollary, of the whole art of Obstetrics. This I pointed out on several occasions many years ago. More recently, Dr. Tyler Smith has, at my request, and under my direction, but with great originality and ability, pursued this subject. I cannot too strongly recommend his work to you. I am sorry that the dedication is not in the terms originally agreed upon between us.

The expulsion of the fœtus, the arrestation of uterine hæmorrhage, are both promoted by the usual excitants of reflex action.

From obstetrics, in which physiology and medicine meet—for parturition is, of course, a physiological act—I pass on to convulsive diseases, in which the phenomena are all pathological. Every convulsive phenomenon is the result of an excitation, direct or reflex, on the same diastaltic or spinal system!

These are vast generalizations. To single out one convulsive affection,

I may observe, that epilepsy, that Herculean disease, of which Esquirol said: "Les symptômes de l'épilepsie sont tellement extraordinaires, tellement au dessus de toute explication physiologique; que," &c., epilepsy is become, since the detection of the spinal system, one of the maladies of the human frame best understood! For epilepsy is, in every case *direct* or *reflex* action, and its effects. And epilepsy, and the simple apoplexy of Abercrombie, and what may be termed simple paralysis, and mania, and dementia, may be but different phases of the same disease! Is not this, then, a noble study? And to know the disease is said to be 'half its cure!' It is certainly the means of learning the just and proper treatment. It is also the means of insuring our profession from empiricism.

But I now revert to the experiments with which I proposed to occupy this evening, and proceed to describe them more in detail. My audience will kindly excuse a little repetition.

Exp. 1. In this, my first experiment, I shall endeavor to pass this needle so as accurately to divide the cerebrum from the medulla oblongata. If I should fail in accomplishing this, one of two events will occur; either I shall leave a portion of the cerebrum attached to the medulla oblongata, or I may injure the medulla oblongata. In the former case spontaneous movements may remain; in the latter, which will be indicated by a laryngeal sound, respiration will become extinct.

I now pass the needle at the point at which I have spoken. You heard the sound; the medulla oblongata is injured; we shall have no spontaneous movements, but we shall also observe that all respiratory movements will have ceased.

But first, gentlemen, observe the momentary absence of excited reflex action when I irritate the toe. This phenomena is the effect of *shock*—of the shock of the operation. In a few minutes the frog will have recovered from this shock, and on again irritating the toe, energetic movements will be observed.

And now, on exciting the integument of the foot, the frog actually *leaps* out of the plate! But having done so, it remains quiescent, absolutely quiescent, and will move no more! The position assumed would be a most painful one, if sensibility remained; and there would be an immediate voluntary movement to change it, if volition remained. But there is absolute immobility. As I have already said, the position of the animal might be drawn, and if it were preserved from all excitement absolutely, it would be found to be retained until all vitality had ceased.

(To be continued.)

ART. XV.—*Cases treated in the Montreal General Hospital, with Remarks.* By W. FRASER, M.D., Lecturer on the Institutes of Medicine, McGill College.

CASE, No. I.

Paralysis of the Bladder, successfully treated by Galvanism. Reported by Mr. Rintoul, Apothecary to the Hospital.

John Mathews, æt. 60, a British army pensioner, of slender bodily conformation, was admitted into the hospital on the 24th May, 1853, under Dr. Fraser, complaining of inability to pass urine. He states that four days previously he got himself wet, on the subsequent day was seized with a severe rigor, and on the day before admission was seen by Dr. MacLagan of the XXth Regiment, who relieved him by introducing a catheter, and recommended him to come to the Hospital.

Present Condition.—Slightly feverish; tongue covered with a pasty white fur, and its papillæ enlarged. When he attempts to make water, only a few drops dribble away; the prostate seems somewhat enlarged, which is probably senile; no particular pain; has a hydrocele of long standing. The catheter was introduced, and about 12 ounces of urine drawn off, a portion of which was ordered to be reserved for examination. The instrument was directed to be passed thrice daily; its introduction was attended with little or no difficulty. He was ordered an aperient draught, and a warm bath in the evening.

26th. On examination, the urine was found to be normal in quality; no improvement in regard to passing it; complains of pain about the perineum. Ordered a drachm of the tincture of the ergot of rye four times a day, and a blister over the sacrum, with the endermic application of strychnine when the cuticle becomes sufficiently raised by the blister.

27th. At noon, a portion of the cuticle having been removed from the blistered part, $\frac{1}{4}$ grain of finely pulverised strychnine was sprinkled over the cutis vera, and at 6 p.m. $\frac{1}{2}$ a grain more.

30th. No marked improvement as regards ability to pass urine, which is now, when drawn off with the catheter, deeply colored with blood; is feverish, and complains of sickness and headache. Omit ergot of rye, and let him have one ounce of the following mixture every fourth hour:—Acetate of potash, $\frac{1}{2}$ oz.; wine of ipecacuanha, 1 drachm; water, 6 oz.

31st. Fever gone; feels better, but is still unable to pass his urine, in fact, there is no perceptible improvement in that respect, from the treatment hitherto adopted. The parietes of the bladder were therefore ordered to be galvanized in the following manner: A silver catheter was introduced into the bladder, which was made to rest on the fundus of that organ, and a female catheter into the rectum, which was made to rest on the recto-vesical parietes; they were then put in connection with

the poles of an electro-galvanic machine, which was put at first into gentle action, and then a pretty strong current kept up for 10 minutes, which produced powerful contractions, tending to expel the catheters. He was then ordered an aperient draught and a tepid bath.

June 1st. Decided improvement, passes the greater portion of his urine spontaneously, though not able to empty his bladder completely; the urine is no longer bloody.

2nd. Still improving. Galvanism was reapplied as on the 31st, and with the same effect.

3rd. Up to this period the catheter was employed at first thrice daily, latterly twice, but he has now so far recovered as to render its use unnecessary; it was therefore ordered to be discontinued.

4th. Still going on well, but weak. Ordered four ounces of wine daily, and a more nutritious diet.

6th. General health improving, but has a frequent desire to micturate; The stream stops suddenly, and the urine, which has an acid reaction, is loaded with mucus. Ordered a wine-glassful of the following mixture four or five times daily. Leaves of uva ursi, 1 oz.; hops, $\frac{1}{2}$ oz.; boiling water, 1 quart. Infuse, strain, and add carbonate of soda 4 scruples.

8th. At 8 o'clock this morning, had a rigor, accompanied with a sharp pain about the lower border of the left ribs, for which a turpentine stupa was applied with benefit. Evening.—From his inability to pass urine, the catheter was introduced twice during the day. The urine is, at the time of being drawn off, turbid, with a considerable flocculent deposit of mucus. He complains of severe pain and tenderness about the neck of the bladder and urethra. Ordered a warm hip bath, and an enema of tepid water, after which, should the pain continue, a suppository, containing two grains of opium, to be administered. This latter remedy was found necessary, and when exhibited, gave him marked relief.

11th. Still complains of some degree of pain about the base of the bladder and urethra, but is now perfectly able to pass urine when requisite. The suppository of last report to be repeated in the evening, and 2 grs. of iodide of potassium added to each dose of the uva ursi mixture.

14th. General health much improved. Urine less turbid. Continue.

19th. Is feverish; complains of wandering pains about epigastrium, and a severe scalding pain on passing urine; has probably been exposed to cold about the galleries. Fancies the mixture disagrees with his stomach. Omit it, and let him have 1 oz. of the following every 4 hours: acetate of potash, 2 drachms; ipecac. wine, 1 drachm; liquor potassæ, 1 drachm; water, 6 oz., and linseed tea for drink.

27th. Looks and feels healthier and stronger; passes urine quite freely, and with but slight pain in the urethra.

1st July. Discharged. His general health much improved, and the

complaint for which he entered (retention of urine,) entirely removed, having now no difficulty in passing water. At his own request, the old hydrocele was punctured, and 8 oz. of clear fluid drawn off, which he says had been two years in collecting.

REMARKS.

The cause of the paralysis of the bladder in this case was evidently over-distention of its muscular fibres, occasioned by the retention of urine, which resulted from the wetting which Mathews got a few days prior to his admission into the Hospital. The prompt and permanent benefit derived, in this rather unfavorable case, considering the man's age, &c., from the direct application of galvanism to the parietes of the bladder, after the failure of the ergot of rye, and other means employed, prove it to be an eligible therapeutic agent in similar cases; and the established physiological doctrine, that although the muscles of animal life are ordinarily and best called into action through stimulants applied to their nerves, the muscles of organic life are usually called into action by the direct application of a stimulus to their surface, and are with difficulty made to contract by stimulants applied to their nerves, satisfactorily explains the modus operandi of galvanism in overcoming such a form of paralysis of the bladder as this was, and, moreover, shows the practice to be based on principles as scientific as it was successful in the above case.

The low degree of vitality of the coats of the bladder, owing to old age and the over-distention to which they had been so lately subjected, together with the irritation caused by passing the catheter, and sudden changes of the weather, to the influence of which Mathews exposed himself by walking about the galleries, were the apparent causes of the subsequent irritation of the urinary mucous membrane.

8 Little St. James Street, July, 1853.

ART. XVI.—*The Medical Institutions, &c., of Berlin.* By WM. HALE HINGTON, M.D., L.R.C.S.E., Member of the German Society of Naturalists and Physicians, Berlin.

From the time of Frederick the Great, Berlin has been looked upon as the focus of talent and learning; and has, almost universally, been considered the Athens of Germany. During, and since the reign of Frederick, it has been the seat of the most polished and refined society—society to which talent and moral worth, with a liberal education, were the passports. That monarch (himself a poet and philosopher, as well as a politician and warrior) labored hard to make Berlin a capital worthy of Prussia; and his successors followed his example. They endeavored to establish its reputation by means of men celebrated in the various

fields of science and literature. To this end, Prussia generally—indeed every country where the German language is spoken—was canvassed for those who were calculated to add lustre to the university, and thereby to the capital. When no vacancies existed, it has *not* unfrequently happened that persons have by Government been furnished with the means of living in a style suited to their position, under the condition that they should reside for a portion of the year at Berlin. In casting our eyes to the large number of scholars, divines, naturalists, learned, &c., who have here lived and died, we naturally look for those who have labored for the cause of medicine and surgery, but are disappointed at the smallness of their number; and they, too, for the most part, within the memory of men still young. Thus, while music, the fine arts, the various branches of science, &c., were encouraged and supported, the *healing art* was allowed to continue in unmerited obscurity. The *eclat* that attended the medical institutions of Prague, Vienna, Bonn, Wuerzburg, &c., kept Berlin for a long time completely in the shade.

Towards the beginning of the 19th century, however, she began to attract attention; her hospitals and schools were more thickly attended. She now numbers the most students, and the largest surgical class in Europe.

It may be of advantage to some of the readers of your Journal—especially to those who intend visiting this portion of the continent, to learn what are the advantages Berlin affords to those seeking professional education. For this purpose I shall, with your permission, transcribe from my daily journal the observations on, and remarks I have there noted relative to those matters; and I must be pardoned if I occupy too much time in giving detail.

The university, a very fine building, built by Frederick William III., was opened in 1810, when, by order of the Prussian Government, or rather the King—for free legislation was at that time unknown—the university was removed from Frankfort on the Oder to its present situation, Berlin. It is situated in the finest and most fashionable part of the city, in a large broad street (*unter den Linden*) directly opposite to Frederick the Great's monument, and the palace of the Prince of Prussia, with the Arsenal, Museum, and King's Palace on the left. In front there is a pretty garden, and in the rear a grove.*

At first the number of students who were attracted to the Prussian

* I may here observe, that, generally speaking, the German Universities are situated in the finest and most beautiful parts of their cities. The German public pay greater attention to, and evince greater interest in, all matters relating to education and learning, than do the British or Americans. On visiting strange cities, their first enquiry is, "Wo ist die universitaet?" Persons residing in Britain or America are not often called upon to answer such questions.

capital was not very great: for although professors of generally acknowledged ability were sent for to all parts of the Kingdom, yet the advantages afforded to military over civil students, prove extremely distasteful to the latter, and prevented many from attending its sessions.* By a wiser policy of Government, by gradually yielding to the wishes of the people, and by affording to civilians *all* the privileges they had granted to others, the university soon began to flourish. At the present moment it numbers 2,200 *matriculated*, and many *immatriculated* students. Of the *matriculated* about 2-9ths are medical. There is no university in Germany where so many students are collected together. Prague, the oldest, numbers 1,272; Munich, 1,957; Bonn, 866; Wuerzburg, 722.

Labor is thus divided among the various professors in their several departments:—In Theology, there are 5 ordinary and 4 extraordinary professors, and 2 private docentes; in Law, 9 ordinary and 4 extraordinary do., and 3 private docentes; in Medicine, 11 ordinary, 6 extraordinary, and 19 private docentes; in Philosophy, 27 ordinary, 29 extraordinary, and 31 private docentes; in Modern Languages, 5.

The largest building for the reception of the sick is "La Charité," built by Frederick William I., for the education of surgeons for the Prussian army. It continued as such till 1810, when the University was brought from Frankfort on the Oder. Previous to that time there were professors of the Military Academy who gave lectures to the young men studying for the army. In 1810, the professors in the University were allowed wards for their *clinique*, and students then matriculated. In 1848, Government made still greater concessions, by permitting civilians to become assistants to the professors in *one* medical *clinique*.

The "Charité" is governed by two directors—one medical and one administrative. It is divided into old and new. In all, contains 900 beds, but could accommodate nearly double that number did circumstances require it. The old contains the medical, surgical, obstetrical, and children; the new, the syphilitic and insane, sick prisoners, and those sent from the prisons. From the medical four wards are selected for the *clinique*, two male and two female, one of each for each professor. From the surgical are taken four wards for *clinique*, male and female, two of which are for ophthalmic surgery. These are all attended by the same surgeon. The obstetrical department contains only 30 beds, which are seldom all occupied. By a very unwise and prejudicial arrangement, it is open to students *only in the summer season*, and to *midwives* in the winter. This almost amounts to a total prohibition. There are not, on an average, more than 400 births in a year. For small pox

* These remarks apply only to students of medicine. On those studying divinity, arts, law, &c., were placed no restriction.

a very large space is taken. Patients are changed frequently from room to room, and their recently occupied apartments freely ventilated. The greatest cleanliness reigns throughout the whole establishment. The wards are well ventilated, light and cheerful. Each ward contains about 16 beds, such wards as 40 or 50 would be crowded into in some of the hospitals of Paris. Those set apart for the clinique are fitted up in a style approaching to elegance—the high roofs, the large and numerous windows reaching almost to the ceiling, the rosewood and iron bedsteads, the polished wax floors, &c., are luxuries to which the eye is, unfortunately, not much accustomed in such localities.

Apart from the Charité, and in connection with the University, are 3 cliniques, for medicine, surgery and midwifery. They are all supported by Government, and consequently admit patients from all parts of Prussia. Besides these, there are *poli-cliniques*. Patients not desirous of entering hospital are attended at their own houses by the students; and, when necessary, by the assistant physicians, &c. In the hospital of the University, about 300 births take place in the year; in the poli-clinique, between 800 and 900 *out-door accouchements*. There are several private cliniques for the education of young men. It would take up too much time to enumerate and describe them all, and I must content myself with the following:—

The Orthopædic Establishment of Dr. Buehring. In this establishment, which is situated on the outskirts of the city, almost every degree of deformity may be met with, and an infinite variety of apparatus. A few months' attendance will suffice to show to the most sceptical the great advantage that frequently attends the judicious employment of mechanical means for the removal of deformity. The patients (nearly all young girls between the ages of 4 and 16), although obliged to remain several hours a day in a certain position, look healthy. Most of them leave hospital with rosy cheeks, and little trace of deformity remaining. Dr. B. was nephew to Dieffenbach, and edited his work on practical surgery. He seems to inherit the genius of his uncle.

Dr. Von Graeffe has a clinique for diseases of the eye. He enters very fully into the physiology of the eye, and the laws of optics. His treatment of strabismus and perverted vision, by means of prismatic glasses, has been very successful; also his treatment of ulcers by means of Atropine. Dr. Von G.'s acquaintance with French and English; and his desire to impart instruction by speaking in either language when necessary, renders him a favorite with those speaking these languages.

The following are the establishments *not* intended for the education of students:—

Bethavian, founded by Frederick William IV., and opened in 1848 for the education of Protestant Sisters of Charity as nurses, or *Diakonissen*.

who here serve a novitiate of one year before becoming sisters. These nurses are not composed of the lower classes, but frequently belong to the first families of Prussia; the countess of Stolberg, recently married from this institution, had been a nurse for many years. Unlike the Roman sisterhood, they pledge themselves to celibacy but for *five* years, at the end of which, if Providence should have thrown in their way some *likely* fellow, they can doff the modest grey and white; if not, they may renew them again, for other five years, or life. They are paid a trifling sum yearly—barely sufficient for clothing. They frequently serve in the Charité, and in the city as nurses. The proceeds of their labor is paid into the treasury of the Bethanien their *Mutter Haus*, to which they, at the end of their engagement, return. Like most establishments where sisters of Charity are nurses, every thing is remarkably clean. It, as well as the Charité, are heated by air. Tubes of heated air are introduced into every part of the building, and others for cold air and the removal of effluvia. The Bethanien accommodates but 300 patients. The beds are six feet apart. It is attended by four physicians and surgeons. The directress and apothecary (also a woman), are elected by the Diakonissen from among their body.

Elizabethan—for diseases of women generally, contains 90 beds; also attended by Sisters of Charity.

Armen Haus Hospital, for vagrants (sick), incurably sick, incurably insane, and prostitutes, (these are all kept separate), contains 1000 beds, which are generally well filled in winter; in summer rather empty.

Kinder Hospital, for children of from 1 to 12.

The professors of Clinical Medicine in Berlin are Schoenlein, Wolff, Romberg and Traube. To Schoenlein there can be but one objection—the difficulty of being understood. Laboring under œdema glottidis his voice is in consequence hoarse and guttural. His therapeutics, however, are excellent. He has the largest medical practice in Prussia; has been the King's physician for many years, and is held in high esteem by the profession. He seems to have an unconquerable dislike "to see his name in print." A few years ago, some of his assistants took short hand notes of his lectures and published them. They formed, when complete, a large work, but S. bought up all he could procure, and endeavored to suppress the remainder.

Traube devotes several hours a day to giving instruction in auscultation and percussion. He has written several papers on various subjects; one in particular on "critical days," is very excellent.

Romberg has a wide-spread reputation for his treatment of nervous affections. Arsenic in every variety of dose and preparation seems to be his favorite remedy. His work on diseases of the nervous system, translated into English, is no doubt familiar to many.

Juenken (pronounced Yuenken) and Langenbeck are the professors of surgery; the former attached to the Charité, the latter to the University clinique in Ziegler Strasse. Much praise cannot be bestowed on Juenken as a *general* surgeon. He had made the eye his particular study, and, when considerably advanced in years, he was appointed to the chair of surgery. The result is, that although passable, he is not calculated to add lustre to the chair. As an ophthalmic surgeon, however, he is entitled to the highest praise. He operates with the greatest ease and dexterity, while his diagnosis seems almost infallible. Juenken has strenuously, and I fear unsuccessfully, endeavored, in a public discussion with Langenbeck, to show *that death can never take place in any patient from the inhalation of chloroform in any quantity*. It might be supposed that the loss of half a dozen patients in his hospital practice, when in a state of *anæsthesia*, would lead him to think that chloroform was *not* perfectly harmless. Yet those deaths have been attributed *not* to chloroform, but to shock of the operation. It is unfortunate that a man should hold such views—as it causes him to pay less attention to his patient—to administer it in unnecessarily large quantities, and to confide its administration to improper hands.*

But by far the most attractive to the stranger is the surgical clinique in Ziegel Strasse, where Langenbeck may be seen daily, with, generally, several cases for operation. The operating theatre, (a large, circular, well lighted room), is interesting, also, for its associations. 'Twas here Von Graefe, during a number of years, gave instructions, till death removed him from the scene of his great success. He died a millionaire, by his profession. 'Twas here his world-renowned successor, Dieffenbach held forth. 'Twas here, alas! he died. The sofa, on which he was seated, observing a student making an examination of a tumor, when he quietly and suddenly expired, is still here. The portraits of both are suspended in the room. Dieffenbach's death was so sudden, and in the midst of such flourishing health, that the great mass of the people could not believe he was dead. A mirror was placed before his mouth, and in this way was closely watched by his assistants and several physicians for four days, but no sign of life was visible. The populace, however, still fondly clinging to the hope that he *would* "come to"—nay, almost believing in his infallibility, would not even yet allow him to be buried. *They* watched him five days more—when decomposition too plainly told them they need watch no longer. When it was at last admitted that he

* On the 6th January, I was present at an operation—Extirpation bulbi for melanosis. When the eye had been completely removed, it was observed that the patient, (a woman of about 58 years of age), did not breathe. Electricity, respiration, &c., were resorted to—but to no purpose. This death, like the preceding, was attributed to shock to the nervous system, and would, he said, have taken place, even if chloroform had not been administered.

was dead—and their charge transferred to the undertaker—the feelings of the people were manifested in one universal outburst of grief. He was attended to his last resting-place by *thousands*—all testifying their sorrow by carrying wreaths of mourning (the usual manner in Germany of manifesting grief for departed friends) which they placed on and around the tomb.*

In no Clinique I have yet visited, have I seen so many operations as are here to be witnessed. The hospital is not large—but is entirely set apart for cases requiring operation. Persons residing in the city and neighbourhood are brought to be operated upon—and taken back to their respective domiciles. The reputation of the operator draws to the capital patients from all parts of Prussia and surrounding duchies. As a lecturer and teacher, Langenbeck is considered superior to his predecessors. As an operator—inferior in *no* respect—superior in many. His talent and genius, compared to Dieffenbach may be questioned—and it is not my intention to discuss the subject. He is moreover, as good a Physiologist as Surgeon—this is an advantage that cannot be called into question. Langenbeck is particularly distinguished for his heroic treatment of ankylosis of the knee and elbow. When a patient is admitted with ankylosis of either joint—whether of months or years duration—he or she (if in health) is put under the influence of chloroform—and when the muscles are in a state of relaxation—the callous is broken, by forcibly flexing the limb if extended—and extending if flexed. The inflammation, lit up, is almost invariably easily controlled.

When writing about medical affairs in this part of the Continent, it may not be out of place to mention some of the most striking features that distinguish the Medical Police of Berlin—or Prussia generally—for the same wise and salutary laws for sanitary regulations are applicable to the whole Prussian kingdom.

* Considerable allowance, must, of course, be made, for the natural enthusiasm of the German character. It is more than probable, that, had Dieffenbach lived in any other country, his death, even under the same extraordinary circumstances, would have been unattended with any such public demonstration. Be that as it may, the Germans take a greater interest in their *great ones* than do those of other countries. The rich are here, not so much removed from the poor—there is not the same impassable barrier between them—for education places *all* on greater equality. Interchange of thought and opinion is more frequent, and the estimate formed of those who have raised themselves to eminence, must consequently be more correct. This cannot but be apparent to those who visit Germany. The opinions that may be heard expressed at the road-side cottage—or inn of some obscure village, concerning those who occupy eminent positions in Medicine and Surgery (though perhaps hundreds of miles distant) are remarkable for their justness and precision. Nor are they carried away by the reputation of the person—for when speaking of the superior attainments of the party in question—they at the same time do not fail to mention his deficiencies. Their remarks, in fine, would frequently do credit to a professed critic—*plus* charity.

Berlin, the largest city in Germany, contains nearly half a million of souls (including the garrison.) It is divided into a number of sections or wards—each of which, is attended by a Medical man—who receives a regular salary for attending all the poor in his district. His prescriptions are sent to an apothecary, who charges the medicine to the town. The poor are thus free of expense.

All tradesmen (blacksmiths, carpenters, &c.,) *in service* are compelled to pay a small sum weekly for the support of their sick. This originated with themselves, but has now become compulsory. The tax is regulated according to their wages, and deducted from their weekly pay.

Besides the physicians already mentioned, there are eight for the city of Berlin, whose duty it is to visit manufactories, gaols, workhouses, boarding schools, &c., to see that the inmates have comfortable apartments and sleeping rooms, sufficient clothing, and food of a proper quality, and in sufficient quantity; that they have their regular hours of recreation, and that they are not tasked either in work or study beyond their strength.

There exists in Berlin a Hygienic Association, which numbers about 10,000 souls. Any person, by paying two groschens, (somewhat less than 2d.) monthly, is entitled to medical advice during health, as to what he should eat, drink, &c., and attendance during illness.*

It is necessary to announce the birth of every child to the police, and to state whether born healthy or diseased. After some months it *must be vaccinated*. For this purpose there is an institution in every town, and at convenient distances in the country. Every man must serve three years as a soldier, and when enlisted, *he is re-vaccinated*. *No person is employed in any service, civil or military, without a certificate of vaccination.*

Every physician must announce to the police all the cases of cholera, small pox, epidemic dysentery, or supposed infectious disorder that occur in his practice. Scarlatina and measles are excepted.

He is required to give to the parents or friends of those dead in his practice, the date of death, and disease of which he died. Every week is printed all the deaths and the diseases. The names of the deceased are published in connection with the church to which they belong.

I may here remark in conclusion, that the medical are in connection with, but over the town police.

* Since writing the above, I have learned that this society has been dissolved by the police. It was discovered that the so-called Hygienic Association, were organized for the purpose of applying hygienic principles to government, and chose this manner of visiting each other as the least likely to excite suspicion. Some of the visiting physicians and ring-leaders have been arrested, and papers and other articles of a treasonable nature have been found in their possession, which, it is generally believed will lead to the conviction of many.

I shall now occupy but a few lines in noticing the curriculum of the study of medicine in Prussia.

Before being allowed to matriculate as students, they are compelled to undergo an examination in classics, French, mathematics, history, and German literature. They have to write a thesis in Latin and German, on any subject which may be prescribed them: the principles of philosophy (logic and metaphysics) are also entered into. This past, they are admitted to the university. They usually spend three years at a university, after which they commence the study of medicine. Their study must extend over a period of four years, or eight semestres (four of which in a Prussian University.) At the end of two years they are required to undergo an examination in physics, chemistry, botany, zoology, mineralogy, and some branches of philosophy. This examination is necessary to continue. The examiners are not connected with the medical faculty. The examination commences with a theme given by the Dean of Faculty, on any subject he may choose. When written, and if approved of, the Dean (who is commonly elected from among the professors) examines the candidate on medical subjects generally. If successful, each professor examines him in his particular department. This is called *Rigorosum*, but, in comparison with what is to follow, is not rigorous. He has then to write a thesis in Latin, on any subject he pleases, and print, at his own expense, a sufficient number of copies to enable him to send *one* to every university in Germany,* and *three* to every professor and teacher in the university to which he belongs. This thesis is impugned, and must be defended against three adversaries, chosen by candidate. The debate, which is public, is conducted in Latin. This over, the title of M. D. is conferred.

But, to be enabled to practise a *Staats Examen* or *Cursus* must be undergone. This commences about 5 or 8 months after—but may be deferred as long as candidate wishes, and usually lasts 5 or 6 months. In this *Cursus* the following branches are gone over: Anatomy, Surgery, Midwifery, Medicine. In Clinical Medicine and Surgery, candidate from time to time receives patients, and in presence of the Professors and Students, is required to make the diagnosis—offer a prognosis and prescribe treatment. He is then locked up, to write a complete *historia morbi*.—In Midwifery candidate has to examine several women, and tell the stage of pregnancy. He must also make deliveries in presence of the Professors.

On the dead subject he is required to go through all the operations, amputations, applications of ligatures, &c., besides the elementary parts of Surgery such as bandaging, cupping &c.

* There are 24 Universities, where the German language is the medium of instruction.

In anatomy the candidate is required to make a preparation of any part given him—and of any tissue.

The *Staats Examen* is eminently a practical one, and well fitted for a person about to enter practice. From beginning to end, is conducted by lottery. Candidate draws from among a number of others, a paper on which is written what is required of him. He draws in each branch separately.

Kirche Gasse, Berlin, February, 1853.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

VIII.—*The Action of Medicines in the System.* By FREDERICK WILLIAM HEADLAND, B.A., M.R.C.S., &c. Pp. 560. Lindsay & Blakiston, Philadelphia. B. Dawson, Montreal.

The advantages which would result from an intimate acquaintance with the action of medicines, are so transparent, that their recital need not detain us here. Like other mysteries in which man forms and takes part, the pursuit has proved bewildering during its progress, and unprofitable at its termination. The adventurer, then, is entitled to admiration, who, undaunted by past failures, has sufficient curiosity and energy to pursue what has been to most of his predecessors a mere *ignis fatuus*. We must be understood to be speaking now, not of the knowledge of ultimate facts, for this comes of skill and observation, but of the why and the wherefore of such facts—the *secula seculorum*—which have not been revealed.

An inquiry into the action of medicines is beset with numerous difficulties, and unless these be removed, it will yield but little profit. The terms used in therapeutics are frequently vague; a single one has often several significations, and unless a clear comprehension exist of the sense in which it is used by a particular author, he will be read erroneously, and lead to egregious mistakes. Thus neurotic may mean either a medicine which ameliorates nervous disorders or one which has some entirely different curative tendency, but produces its effect by nervous agency; having dissimilar meanings, according as to whether the end attained or the course pursued be implied. The arrangement of medicines into classes, and the designation of these classes, is arbitrary, and although conventional, is far from being conclusive or appropriate. We say, so and so are antispasmodic, and the theorist might believe all others not included with them were without such virtue, while the truth is, that very many of the rejected, under peculiar exigencies, can produce

the same result as those which have been retained. Spasms may own many sources as the emotions, inflammation, hyperæmia, anæmia, dental, gastric, intestinal, and uterine irritation; and on the principle of removing the effect by taking away the cause, all that is necessary, is to single out the cause, and then apply with mathematical precision the "*contraria contrariis opponenda*" of Hippocrates, when there will be found an all sufficient antispasmodic in the calmative, antiphlogistic, debilitating, tonic, lancet, emetic, cathartic, and emmenagogue respectively. It is true these are but relative means, and of limited utility, but it is more rational thus to manage disease than, haphazard, treat it with absolute measures which often disappoint, and may be detrimental, for no medicine reckoned absolute, will invariably manifest its power. This is a view of the action of medicines not yet thoroughly unfolded, but we hope ere long to find it portrayed with ample justice.

Again, it is customary to indulge in exclusive ideas of the actions of medicines, and commemorate them in too defined statements, which are bad, by concealing, in an apparent conclusiveness, the warping of judgment, and narrowing of truth, inseparably belonging to them. Thus mercury cures inflammation and robs the blood of its richness while moreover, it has thrown some persons into a cachexia—a species of spæcemia—so that it is argued mercury is a deteriorator of the blood; but while this is true, it is also true that mercury, like a double-edged sword, cuts efficiently in opposite directions. Mark out, in proof, the victim of syphilitic cachexia, as if, in the last extremity of a consumption, before whose progressive hectic and emaciation he is rapidly declining, involved in a state of disease which pals the apprehension and confounds belief. His blood cannot well be of poorer quality, and yet in its deteriorator lies his only hope of recovery. Mercury alone will restore him to ruddy health, and do for him what lies in the power of neither tonic nor restorative. Can any one after this say it has a special, invariable, absolute effect, and not take into account the circumstances of varying cases. This is one example, but fallacies of a like kind apply to other remedial agents—*ex uno omnes disce*.

The phenomena of nature are diversified, and each one exhibits several phases; thus arsenious acid may occasion death by an acute shock to the nervous system, or by chronic disorder of this same part, or by gastro-enteritis, or by an inflammatory condition of the whole system, or by a combination of all these elements. The physiological effects of the same medicine are numerous, and trifold according as they depend upon its local, common remote, and specific remote actions. But we will not protract the discussion further. These remarks have been made, not in condemnation of the work before us, but in apology for its subject, we only meant to show the reed on which the author leant, and must say

we would have been rejoiced had it been strengthened by their finding some place in his production.

The Medical Society of London offered in 1852, the Fothergillian gold medal for the best essay "on the mode in which therapeutic agents, introduced into the stomach, produce their peculiar effects on the animal economy." Dr. Headland was the successful competitor, and for his present work was adjudged the prize.

The author commences by examining the various classifications of medicines which have been projected by his predecessors, and as he finds none unobjectionable, declines adopting any; and in lieu proposes the following classification of medicines, which act, after entering into the blood, according to their supposed modes of operation. Class I. HEMATICA.—Div. 1. Restaurantia. Ordines. Alimenta, acida, alkalina, tonica, chalybeata et solventia. Div. 2. Catalytica. Ordines. Antiphlogistica, antisiphilitica, antiscrofulosa, antiarthritica, antiscorbutica, antiperiodica, anticonvulsiva, and antisquamosa. Class II. NEUROTECA.—Div. 1. Stimulantia. Ordines. S. generalia et specifica. Div. 2. Narcotica. Ordines. Inebriantia, somnifera, deliriantia. Div. 3. Sedantia. Ordines. S. generalia et specifica. Class III. ASTRINGENTIA.—Ordines. A. mineralia et vegetabilia. Class IV. ELIMINANTIA.—Ordines. Sialagoga, expectorantia, cathartica, cholagoga, diaphoretica, diuretica.

We agree with the author in his objections, as they are just and weighty, but we think his amendment is not much of an improvement on former classifications. Two very obvious exceptions may be taken to it, the one for its hypothetical foundation, the other for its incongruous character. In reality, every medicine by which health is recovered, is a restorative; but as a more limited signification has been given to the term, we examine it accordingly, and certainly have to question the propriety of associating together aliments and solvents, alkalies and chalybeates. Special sedatives assimilate ipecacuanha and digitalis; and general sedatives, hydrocyanic acid and colchicum; but for what reason we have not yet divined. His arrangement is also incomplete. Emetics are wholly excluded from the orders, &c., although many of them act through the blood, and even when applied to other absorbing surfaces than the gastric.

The author discusses his subject under the following ten propositions:—I. That the great majority of medicines must obtain entry into the blood, or internal fluids of the body, before their action can be manifested. II. That the great majority of medicines are capable of solution in the gastric or intestinal secretions, and pass without material change by a process of absorption, through the coats of the stomach and intestines, to enter the capillaries of the portal system of veins. III. That those medicines which are completely insoluble in water, and in the gastric

and intestinal juices, cannot gain entrance into the circulation. IV. That some few remedial agents act locally on the mucous surface, either before absorption, or without being absorbed at all. That they are chiefly as follows:—*a* Irritant emetics; *b* Stomach anæsthetics; *c* irritant cathartics. V. That the medicine, when in the blood, must permeate the mass of the circulation, so far as may be required to reach the parts on which it tends to act. That 'here are two possible exceptions to this rule:—*a* The production of sensation or pain at a distant point; *b* The production of muscular contraction at a distant point. VI. That while in the blood, the medicine may induce changes, which in some cases may, in others may not, affect its influence. That these changes may be—*a* of combination; *b* of reconstruction; *c* of decomposition. VII. That a first class of medicines, called hæmatics, act while in the blood which they influence. That their action is permanent. 1. That of these, some, called restoratives, act by supplying, or causing to be supplied, a *material wanting, and may remain in the blood.* 2. That others, called catalytics, act so as to counteract a morbid material or process; and must pass out of the body. VIII. That a second class of medicines, called neurotics, act by passing from the blood to the nerves or nervicentres, which they influence. That they are transitory in action. 1. That of these, some, called stimulants, act so as to exalt nervous force, in general or in particular. 2. That others, called narcotics, act so as first to exalt nervous force, and then to depress it, and have also a special influence on the intellectual part of the brain. 3. That others, again, called sedatives, act so as to depress nervous force, in general or in particular. IX. That a third class of medicines, called astringents, act by passing from the blood to muscular fibre, which they excite to counteraction. X. That a fourth class of medicines, called eliminatives, act by passing out of the blood through the glands, which they excite to the performance of their functions."

We regret that we are prevented by want of space from entering upon more than a cursory discussion of the demonstrations which follow. They contain a large number of interesting and valuable facts, selected from various sources, and arranged together in a satisfactory and advantageous manner. The author is largely indebted to Billing, Pereira, Thomson, Neligan, Ballard and Garrod. His extracts display much care as well as judgment, and those facts have only been retained, whose authenticity could be ascertained. In drawing inferences he has conformed to the strict requirements of logic, and in advancing hypotheses, cautions us not to receive them as more than theories, which may or may not be true. He has spared no pains in making his work both seductive and useful, and it speaks loudly in praise of his industry. We are glad to find him frequently tapping the organic radicles, and applying to the-

rapautics the chemical opinions of Liebig, Wholer and Jones. But we think more originality might have been manifested, particularly in clinical observation and experimental inquiry, in both of which departments he is deficient, and has consequently shed but very little additional light upon the paths wherein the action of medicines lies. We have not found our objections to his classification at all removed in the subsequent exposition that follows. This will be found under the last four propositions—here, for the most part, are gathered together his peculiar views, but which, even with the advantage of plausible assertion and ingenious dressing, are, for want of a substantial basis, not likely to be generally accepted. We believe, however, in failing to raise the veil which hides from human ken, the why and the wherefore of the ultimate facts known concerning the action of medicines, it is, as we have said in our exordium, more the fault of the cause, than of its advocate.

In the event of a second edition appearing, we would have our author notice for erasure some blemishes which stain the present. Occasionally loose statements are made; in one part, iodine, bromiae and sulphur, are called metals. Again, some of his therapeutical directions are rather hasty and premature, at 187th page, we are told antimony is far preferable to mercury, in the treatment of pneumonia. Surely pneumonize occurring in debilitated persons, in those having structural changes of important organs, or in the form known as typhoid, have been overlooked, for in these, orthodox people prefer mercury to antimony, and with some show of reason, also after the first stage, or the first and second stages of Stokes in ordinary pneumonia of sthenic character, and in good subjects mercury is more demanded than antimony, and comparative trials have attested its superiority. And lastly, the beauty of a prize essay by a B. A., is not adorned by grammatical inelegancies such as, "Salts pass out of the body as they *went in*." "Terchlorid of gold much *more* seldom employed than Bichlorid of mercury." "After this it (iodine) *came* to be generally employed." "Chloride *being* constantly employed." "When given in *repeated* small doses." "Vaporous transpiration." Particularizing one man, he refers to him as *other men*.

CLINICAL LECTURE.

Clinical Lecture on a case of disease of the prostate gland and bladder—By John Adams, Esq., F. R.C. S., and Surgeon to the London Hospital. (Condensed from the Lancet.)

G. P., 26, was admitted for chronic cystitis, the result of diseased prostate. He had been ill 2 years, and was in a Metropolitan hospital for 6 months. He was then thought to have Psoas abscess, there being

a fluctuating tumor beneath Poupart's ligament. The moxa, rubefacients and other counter irritants were put on the loins, but without benefit. The abscess was afterwards opened, and he was discharged as cured about 12 months since.

Symptoms on admission—Pains at the neck of the bladder, and over the pubes; micturition very frequent; urine scalding, loaded with pus, and streaked with blood; sometimes very dark and offensive, with a very adhesive sediment. *Treatment*—Full diet with palliatives; urine being alkaline, bladder was injected with a solution of 1 drop of muriatic acid to the ounce of water, which gave temporary relief; subsequently he had a lancinating pain in the loins particularly on the left side; urine more bloody—continued thus for 12 or 13 weeks. Appetite very good the whole time. Various remedies were used, and about 8 weeks since, the mucous and bloody discharge disappeared, but he had acute pain in the right side and lower part of the abdomen with diarrhoea and great fever—for the latter he was sent to the physician's ward and treated in the usual way. Sept. 28th, more than 3 months since admission, felt pain and heat in perinæum but did not complain of them till Oct. 1st, when on examination an abscess was found here and was at once incised, giving exit to a large quantity of thin pus with a strong urinous odour. Ordered poultices of linseed meal: milk diet and chop: ℞ij wine: a pint of porter. Part of the wine came through the opening. Oct. 7th, bladder very irritable. Barley water as a drink. Micturition very frequent, with great scalding. Given Liq. Potas. and Tr. Hyoscyam. with much relief. 11th, swelling on left side of scrotum and within the cord; the latter very hard but not red nor hot, complains of a throbbing pain in it with slight fever, loss of appetite, &c., warm water dressing and a suspensory bandage.—12th, saline mixture with 5 gtt. tr. opii every 4th hour in lieu of liq. potas., this allayed the fever and caused sleep. 13th, seems easier and cheerful. 14th, scrotum fluctuates, perineal opening closed. 15th, second abscess burst and a lot of thick pus followed. Poultices to be applied. Pulse about 100. 18th, resumed liq. potas. with tr. hyos. and mucilage. Suffers greatly from lancinating pains through the lower part of the abdomen. Pulse very frequent but weak. 25th, complained of very acute pain at the neck of the bladder—to use every night a suppository of soap with 5 grs. pil. opii et saponis, which gave relief. 26th, cannot eat chop, strong broth substituted. 27th, bowels confined. Given ʒij castor oil, which did not operate until the dose was repeated. 28th, seems to suffer less, but is much weaker and he gradually sank and died Nov. 1st.

Autopsy. Nov. 2nd.—Peritonæum inflamed, recent lymph on its surface abdominal viscera healthy, abscess on the right side of the pelvis, which seemed to have burrowed into the peritonæum under the fascia, from an opening in the left side of the bladder. Prostrate gland entirely suppurated away; bladder very thick, internal surface ulcerated and gangrenous with sinuses passing through it. Ureters very much dilated, particularly the left, and contained cheesy matter; left kidney nodulated externally; suprarenal capsule thickened and indurated, and when cut into the kidney, contained similar cheesy matter. Pus in left testicle; right kidney and testis natural; chest not opened.

GENTLEMEN.—This case is introduced to you because of the obscurity of the symptoms and of its great importance. In retrospect there are many circumstances of great interest to which I wish to call your attention,

but the case throughout was obscure and the symptoms equivocal. On admission, he had a train of symptoms indicative of great constitutional disturbance with excessive irritation of the urinary system and it was difficult to unravel the cause of his intense sufferings. Most of his symptoms arose from the state of the bladder; thus he had frequent and urgent desire to pass urine, painful micturition, and increase of pain after the evacuation of the bladder. Urine was passed in small quantities and either bloody or with a discharge of soapy mucus which soon subsided and occasional pus as proved microscopically. Urine very offensive at least after standing a short time, and it gave decided evidence of alkalinity. With these, was pain in the loins and in the groins, and subsequently a urinary abscess formed in the perinæum, through which pus and urine, mixed with the mucus of the bladder, passed. Then came an abscess in the scrotum which discharged and got well. During the progress of the case, which I regret to say, was from bad to worse, the man gradually emaciated and eventually sunk, dissolution being preceded by pain in the abdomen indicative of low peritonitis. Such is a brief review, I wish you to remember the signs while I tell you my reasons for believing that the case was all along one of scrofulous abscess in the prostrate and first of the most prominent—excessive irritation of the bladder, &c. This might be due to stone in the bladder, but none was detected by the sound; this was one point gained, for it is very important to find out what a disease is *not* if you cannot find out what it is. As there was no stone, and as there was great pain passing the instrument over the prostrate, I concluded this part was the seat of abscess most likely scrofulous, and this impression was confirmed by the progress of the case. I was further strengthened in this view by the recollection of a like case which occurred to me some time since. I was called to a gentleman with a swollen testis and excessive urinary irritation. One surgeon called it hydrocele, another stone, but the sound detected no stone, and I referred it to scrofulous abscess in the prostrate. He died, worn out like our unfortunate patient, and the post mortem revealed the accuracy of my view. In our present case, the signs of this disease are unquestionably equivocal, and that similar symptoms may be due to other causes than the one in question, nay that nearly all the symptoms may be present and no disease exist at the neck of the bladder, for excessive irritation of the bladder, with pain in micturition, bloody and even purulent urine, may result from disease of the kidneys, and some of these may be due to acid urine. A scrofulous prostrate is rare, and is met with usually where tuberculosis prevails throughout the urinary and genital system. In my article on the "Prostrate," in the Cyclopædia of Anatomy, are a few cases from different authorities; in one, there were as many as 30 small abscesses, and as many crude tubercles in the prostrate; the case is by Lallemand. We have no signs to tell the disease before the tubercles have softened and suppurated, and therefore, it is useless to speak of the treatment in the early stage, and even in the advanced, as in our case palliation to lull pain and means to sustain the general health are alone calculated to benefit. Here, however, various medicines were tried, but when the case was fairly made out, the latter solely were employed.

The post mortem is interesting as exemplifying an uncommon termination; thus you perceive that the immediate cause of death was peritonitis from the bursting of an abscess in the perineum through the perito-

næum. In the last vol. of the *Medico-Chirurgical Transactions* is a case of large abscess of the vesiculæ seminales which made its way into the peritonæum thus producing death by inducing subacute peritonitis and to a certain extent, there is an analogy between it and the present.

THERAPEUTICAL RECORD.

(*British and Foreign Med. Chir. Review*—July, 1853.)

Ascites.—Dr. Falcot recommends, in cases of ascites, when the stomach is irritable, fomentations with decoction of digitalis. Two ounces of digitalis are boiled in a quart of water down to a pint, and compresses dipped in the decoction are laid on the abdomen, and covered with oiled silk. The kidneys are soon powerfully affected.

Chlorosis.—Dr. Aran has found that by the employment of *dry and stimulant frictions*, aided by good regimen, and in some cases by wine *lavements*, these obstinate cases may be very satisfactorily treated, when iron has failed. Either flannel or a brush may be used, and occasionally a stimulating fluid, such as spirit of camphor, or some ammoniacal preparation, may be added so as to induce rubefaction. The frictions should be continued for five or ten minutes, every night and morning, being chiefly directed along the back and limbs. In a few days a marked modification of all the functions is produced. In some in which progress is not so rapid, vinous enemata are of great service.

Croup.—M. Trousseau speaks most highly of the employment of sulphate of copper as an emetic in croup, as recommended by Beringnier. The efforts which it induces often detach the false membranes, this emetic, seeming to act less on the stomach than pharynx, while it does not derange the digestive organs, as antimony sometimes does. Vomiting occurs very soon, and is repeated at very short intervals, three or four times; and in three or four hours, the medicine may be again given. Mr. Beringnier, gives from 2 to 3 grains; but M. Trousseau gives as much as 10 grains, divided into two doses.

Dysentery.—M. Delieux employs in chronic dysentery an enema composed of tincture of iodine ʒii to ʒiii , iodide of potassium 15 to 30 grains, and water ʒvi to ʒviii . An emollient lavement is first administered to clear the intestines, and the iodine is then at once thrown up. Occasionally it causes slight colic, which can be prevented by opiate injection.—Of 12 cases mentioned, 10 were cured; 2 went away unaffected. A great part of the iodine is absorbed and appears in the urine. Limer has already recommended the use of iodine injecticus in *acute dysentery*.

Gonorrhœa.—M. Alquié speaks in the highest terms of the great utility of the tannate of zinc (1 part to 100 of water) injection, employed night and morning, in gonorrhœa, after the acute symptoms have subsided.

Perspirations nocturnal.—M. Delieux has employed the *tannate of quinine*, in doses of 6 to 8 grains daily, in the sweats of phthisis, and in other diseases attended with diaphoresis. Pure tannin, appeared in some cases to be even more powerful than the tannate of quinine.

Phthisis.—Bonorden has employed for the last five years, *sulphate of*

was in phthisis, in the following way: He dissolves ʒi in ʒi of water, and gives m xx to xxx every two hours; the pulse becomes slower, the temperature falls, and the hectic fever lessens, the physical signs improve. If in 10 days no improvement occurs, the strength of the solution is increased to ʒii in ʒi. If any uneasy sensation is felt in the stomach the medicine is discontinued for a few days.

Rubeola.—Dr. Walz has employed, after the manner of Schneeman, frictions with fat, in 343 cases of measles, 57 of which were severe; all were cured very speedily. In 30 of these cases, the patients were tuberculous, and the progress of phthisis was arrested.

Scarlatina.—Dr. Walz, has treated in the same way 74 patients with scarlatina.

Fœtus in utero killed by lightning.—Dr. Carithers of Hendricksville, states that Mrs F—, aged about 40 years, in good health, and eight months advanced in pregnancy, received on the 10th of June, 1852, a severe shock from a streak of lightning, from which she recovered in a few hours—when she was attacked with labor pains which caused me to be sent for. On my arrival, I found her suffering with sharp pains. On examination, per vaginam, no dilation of the os uteri had taken place.—Bled her freely, and ordered her an enema of a gill of starch, with a teaspoonful of laudanum, and to take ¼ of a gr. of sulph. morphine every half hour, until she was relieved from pain. After taking the fourth dose the pain subsided. Ordered her to take on the following morning ol. ricini ʒi. At 2 P. M., oil acted freely on the bowels, and at 4 P. M. I found her resting well. Allowed some light nourishment, from that time until she was delivered, which took place on the tenth day after she complained of being very unwell. The child was dead, and from the appearance had been so from the time the mother felt the shock.—*Southern Medical and Surgical Journal*.

The Medical Chronicle.

LICET OMNIBUS, LICET NOBIS DIGNITATEM ARTIS MEDICÆ TUERI.

REGISTRATION OF THE CAUSES OF DEATH.

In a recent article we mentioned that, owing to the want of a complete system of registration in the Province, it was impossible to obtain returns of the mortality of individual diseases. Marriages, births and deaths, it is true, are carefully recorded, and the records deposited in the prothonotary's office. So far good. These records are unquestionably of vital importance to the interests of society. Inextricable confusion in our social system would inevitably result did not such registration exist, or were it suspended for any time. But in so far as the columns of the Register are capable of adding to medical knowledge, and thus advancing the science of medicine, they are comparatively of slight value. From them, the medical enquirer into the vital statistics of the country may learn the ratio of

births to deaths—the proportion of deaths at different ages—the expectation of life at different ages, and the average rate of mortality in various parts of, and throughout the Province. All questions, however, relating to the prevalence of particular diseases in certain districts—to the effects of any epidemic which may have visited the country, or its comparative violence and mildness in different localities—to the influence on the mortality of disease of physical causes, such as nature of soil, state of cultivation, elevation above the level of the sea, thermometric and hygrometric conditions of the atmosphere, &c.,—questions, the solution of which would have a tendency to vastly improve his acquaintance with the natural history of disease, are shut out from his investigation. And, if the homely adage be true, which all experience indeed proves it to be, that “one ounce of prevention is worth a pound of cure,” the public generally are the losers by this limitation of the researches of the physician. For if it be out of his power to ascertain what disease or what particular classes of disease are endemic to the country; and if he cannot trace the progress and ravages of all epidemics, it is clearly impossible for him to advise the authorities or the populace what measures to adopt, and *where* measures should be adopted, to diminish the prevalence of the one, and to stay the progress and reduce the mortality of the other.

There is only one way in which this imperfection in our present system of registration can be remedied, and that is, by introducing a column in the Register books for the purpose of enregistering the *causes of death*. This improvement in registration was introduced into England by the passing of the amendment act of registration of 1 Vic. cap. 22, and has been found, as was expected, of the highest importance in throwing light on various matters relating to hygiene and medical police. Information, moreover, has been obtained from this column of the Registrar General's Reports, regarding the prevalence of epidemics, which has determined legislative action. Witness, for instance, the recently passed act to ensure general vaccination by compulsory measures.

We should like to see this subject brought up and discussed at the next meeting of the College of Physicians and Surgeons of Canada East.—This body, although in existence for five years, has not, as yet, effected much for the advancement of the science of medicine. A singular fact, when we consider that the *élite* of the profession of Lower Canada—the men of ability, learning and experience are included among its members. If they would but agitate questions, such as the one we have thus briefly adverted to, of general interest to the profession of Canada, and indeed of the world, and endeavour by memorialization, or otherwise, to draw the attention of the Legislature to the importance of such subjects, they would deserve well of their professional brethren, and attain a *status* among medical associations, which, at present, they do not occupy.

DR. MARSHALL HALL.

This distinguished physician, who has during the last six months visited many of the cities of the American Union, arrived in this city on the 11th ultimo and left it again on the 17th. He had previously spent some days with his professional friends in Toronto and Quebec. During his residence here, all the leading practitioners of the place, and a few from the vicinity, called upon him, and were much pleased with his urbanity of manner, easy address, and readiness to communicate on subjects which have engaged his attention during a long and active life. On the evening of the 15th, he performed a number of experiments, which will be published in our October number, in the rooms of the Natural History Society before a highly respectable audience; and, on the succeeding evening, delivered a lecture at a *conversazione* held in the same rooms. At the close of the lecture, Prof. Holmes, who was deputed by the members of the medical profession present, addressed Dr. Hall as follows:—In my own name, and on behalf of my professional brethren now present, I would express to you, Sir, the gratification we all feel by the presence amongst us of one who has earned for himself, by his painstaking researches and successful investigations into the physiology of the nervous system, an enduring place in the annals of our noble profession. For the opportunity to make your acquaintance, which you have afforded us in this visit; for the interesting experiments which you have performed in our presence, and for the highly instructive lecture delivered this evening, you have our sincere thanks. We shall ever recal the circumstances of your visit with feelings of pleasure; and we trust, that in the reminiscences of your tour through America, that of your sojourn in Montreal may not be among the least pleasing.

Major Lachlan, President of the Natural History Society, then came forward, and, presenting Dr. Hall with the honorary degree of the society, said:—I have much pleasure in being deputed by the members of the Natural History Society of Montreal to present you with the diploma of honorary member of that society,—voted by acclamation at their last meeting,—as a mark of their estimation of your well-earned high professional character, as well as of your valuable contributions to science generally, and in the hope that that document will occasionally serve as an additional agreeable memorandum of your visit to Montreal.

Dr. Marshall Hall replied:—I thank you, Prof. Holmes, and the gentlemen here present, and especially the gallant President of the Natural History Society of Montreal, for the kindness and the honour done me this day. My chief desire is to deserve well of my profession, and to live in the esteem of my professional brethren; and every proof that that desire has been attained, is a source of extreme gratification to me. I may well, therefore, be pleased with the events of this evening.

thank you sincerely, gentlemen, for the cordial manner in which you have welcomed my presence amongst you, and beg to assure you, that when the ocean again divides us, my visit to Montreal will be remembered with peculiar pleasure and pride.

The company then separated into groups, and animated conversations on various subjects of professional and literary interest were kept up until a late hour.

COLLEGE OF PHYSICIANS AND SURGEONS, C.E.

In the account of the proceedings of the triennial meeting of the College, published in our last issue, the names of three of the governors elected for the city of Quebec were inadvertently omitted. We can assure Drs. Jackson, Robitaille, and R. H. Russell, the three gentlemen in question, that this inaccuracy in the Report has caused us not a little annoyance. We thus promptly make such amends as is in our power.

GOVERNORS FOR THE CITY OF QUEBEC:—Drs. MOFFIN, FREMONT, MARSDEN, SEWELL, LANDRY, JACKSON, ROBITAILLE, and R. H. RUSSELL.

Abdominal Galvanic Supporter.—We have received this instrument from the manufacturers, Messrs. Seymour & Co. Want of space prevents us from noticing it at more length in this number.

TO CORRESPONDENTS.

Dr. Watt, Paris.—We regret the delay, the fault lies with some one in the post route, for the last number was mailed even earlier than the preceding ones. Our practice is to mail the numbers to our subscribers, out of Montreal, on the 1st or 2nd of the month. *Dr. Laing, Amherstburg.*—We hope his able pen will often be taken up to add to our original communications.—*Dr. F. Cameron.*—We thank him for his interesting cases—the presage, we trust, of future ones—with others they have been postponed to our next for want of space. *Dr. A. Fortier.*—The alteration made as desired. *Dr. Evans, Richmond.*—The apparatus can only be obtained here by ordering it to be made. It can be made by any iron worker and saddler under Dr. E.'s superintendence. Any contribution from so able a hand will be esteemed. *Dr. Murray, L'Orignal.*—Has not escaped our recollection, and we will be happy to renew the friendship of days gone by.

Books received for Review.—Headland on the action of Medicines, Lindsay & Blakiston, 1853. Henle's General Pathology, Lindsay & Blakiston, 1853. Meigs on the Diseases of Children. Second edition. Lindsay & Blakiston, 1853. Dr. Hamilton's Fracture Tables. Dr. Hamilton's Address, (from the author.)

QUARTERLY REPORT of the Montreal General Hospital, from 1st May
to 31st July, 1853.

Remaining from last Quarter.....	50	Discharged cured.....	267
Admitted.....	301	Died.....	12
		Remaining.....	73
	351		351
<i>In Door Patients.</i>		<i>Out Door Patients.</i>	
Males.....	182	Males.....	407
Females.....	119	Females.....	385
	301		792

DISEASES.	May		June		July		DISEASES.	May		June		July	
	Admit.	Died.	Admit.	Died.	Admit.	Died.		Admit.	Died.	Admit.	Died.	Admit.	Died.
Ambustio,	1		4				Hepatitis					1	
Amputatio,	1	*					Hysteria,	2		1			
Ascites,			1				Influenza					1	
Abscess,	1		1		1		Impetigo	1					
Anasarca,					1		Lumbago	1		1			
Abortio,	1						Luxatio	1					
Amaurosis	1						Laryngitis	1					
Amenorrhœa,	1						Mam. Abscess			1			
Anthrax,			1				Marasmus,			1			1
Bronchitis,	5		5		1		Nostalgia			1			
Do. Acute,	1						Neuralgia	3					
Congest. Cerebri,					1		Nephritis	1					
Caries,	1						Ophthalmitis					1	
Conjunctivitis,					3		Ophthalmia	1		2		1	
Contusio,	6		6		4		Œdema			5		1	
Constipatio					1		Pleurodynia,			1			
Coup de Soleil,					1		Phlegmon,			1			
Chorea,	1						Prungo,	1					
Cephalalgia,			1				Pleuritis ch.			1			
Cutaneous Transform.,			1				Pneumonia,	2				2	1
Debilitas,					1		Psoriasis,	1					
Del. Tremens,	4		4		5	1	Paraplegia,	1				2	
Diarrhœa,	1		3		6		Podagra,			1			
Dysenteria,	2		4		1	1	Phthisis,	1	*	2		1	1
Dyspepsia,	5		2		9		Paralysis Vesicæ,	1					
Dislocatio,	1						Periostitis,	2					
Erysip. Phleg.,	1						Paronych. Palm.			1			
Do. Simple,	1						Porrigo,			2		1	
Enteritis, S. A.,					1		Rheumatism,	6		5		3	
Erythema,	4		1				Relaxio ani,	1					
Feb. Com. Cont.,	3		9		13		Syphilis,			1		4	
Typhus,					2		Scarlatina,	1		1			
Typhoid,			1		1		Synovitis,	3		2		1	
Relapsing,					1		Sciatica,			2			
Intermit.,			1		2		Splenitis ch.,					1	
Feb. Ephem.			1		1		Sclerotitis	1		1			
Furunculus,	1				2		Tuberculosis	1					
Fractura	1	*	2		3		Tinea Capitis			1			
Gastritis	1		1		3		Tonsillitis	2		1			
Gastrodynia,			1				Ulcus	3		9		6	
Granular Lids	2						Vulnus Sclopitar			2		1	
Gonorrhœa,			1				Vulnus Com.	4		2		2	
Hypertrophy of Heart					1		Vesania			1			
Hemiplegia	1	*					Variola	7		3		2	
							Varioloid			2		1	

Wherever a death appears with a "star" affixed it is intended to show that the individual was admitted on the last or some previous quarter.

Number of Operations, with Fractures and Dislocations treated during the Quarter.

Amputation of Leg,.....	1
.... of the Fore Arm,.....	1
Removal of Metacarpal Bone of middle Finger,.....	1
.... .. Phalanges,.....	3
.... .. Nasal Polypi,.....	1
Operation for Talipes Varus,.....	1
.... .. Onyxis,.....	1
Fractures treated Intern,.....	6
.... .. Extern,.....	2
Dislocations reduced,.....	3
	20

Minor Operations.

Abscesses opened, &c.,.....	29
Cupping,.....	1
Setons introduced,.....	1
Teeth extracted,.....	54
Vaccinated,.....	6
	91

Attending Physicians Drs. FRASER and SUTHERLAND.
JOHN REDDY, M.D., House Physician and Surgeon.

MONTHLY RETURN of Sick in the Marine and Emigrant Hospital, from
the 3rd July to the 30th July, 1853, inclusive.

Description.	Remaining 3rd July.	Since Admitted.	Total.	Discharged	Died.	Remaining, 30th July.
Men,.....	94	132	226	159	6	61
Women,.....	22	23	45	29	1	15
Children,.....	2	6	8	4	2	2
Total,.....	118	161	279	192	9	78

C. E. LEMIEUX, House Surgeon,
Marine and Emigrant Hosp.

Our Exchanges.—In addition to those mentioned in our last number, we have received Philadelphia Medical examiner (three numbers); Philadelphia Medical and Surgical Journal; New Hampshire Journal of Medicine; Iowa Medical Journal; Peninsular Medical Journal; and the London Pharmaceutical Journal and Transactions.

MEDICAL NEWS.

The Female Medical College of Pennsylvania will commence its next course of lectures on the 1st of October. Its faculty consists of 5 male and 2 female professors, the latter regularly graduated physicians as well as the former, while the demonstrator of Anatomy is also an able female physician.—The Dublin University Commissioners have submitted to Her Majesty "that the provisions of the School of Physic Act, by which Roman Catholics are excluded from the Professorships of Anatomy, Chemistry and Botany should be repealed. That the provisions of this Act, with respect to Clinical Education, the election of King's Professors, and the distribution of the funds of Sir Patrick Dun's estate, should be reconsidered."—H. R. H. Prince Aibert had consented to lay the foundation stone of a New Medical Benevolent College, at Epsom, on Wednesday, 6th July.—The Queen has appointed Dr. James Begbie to be Physician in Ordinary to Her Majesty, in Scotland.—On the 11th June, 200 men under canvass on Cattenham Hill, part of the Chobham Encampment, were without a surgeon, or even one within four miles, contrary to the Queen's regulation, which provides that wherever a body of men amounting to 200 is encamped, a Surgeon or Assistant Surgeon, belonging to the commanding officer's corps, shall be in attendance.—Dr. E. R. Sanborn, of Lowell, has recently been appointed professor of Surgical Pathology and Microscopy, in the Berkshire Medical Institute at Pittsfield, Mass., and an appropriation of \$10,000 by the State for the benefit of the institution, on condition that like amount be raised by subscription for the same purpose, has been met by individuals who have subscribed the required amount.—Towards the JENNER MONUMENT, America has contributed £339 12s 8d; Sweden and Norway, £83 10s 4d; Russia, £100; Other nations, £29 11s; Great Britain and Ireland, £153 2s 5d.—It is estimated that more than 500,000 Chinese die every year a horrible death from the use of opium, while 5,000,000 Chinese are yearly degraded and demoralized by it.—Layard says, that Dr. Sandwith being told that the Arabs had no opiates, asked what they did with one who could not sleep. "Do you answer the Sheikh, 'why, we make use of him, and set him to watch the camels?'"—Mr. Wilson, of Flushing, L. I., has recently recovered a verdict of \$2,500 in the Kings County Circuit Court, against a Dr. Snell, for Malpractice in treating the arm of the Plaintiff's son, which was fractured at the elbow by a fall.—The human voice has been heard across the Straits of Gibraltar a distance of ten miles. This only happens in peculiar stillness of the weather. The sound of a military band has been heard 70 miles on a clear fine morning.—How to get rid of a Patient who never pays.—"Hum! So you don't feel any better after the pill and draught, eh? That's bad! We must try a more energetic course of remedies, then. Come in this afternoon, and we'll take 15 oz. of blood from you, and a blister on the pit of your stomach, a mustard plaister on your back, then electrify your head, and administer a dose of Croton Oil. That may prove efficacious!"—The patient kept away.—Cases of cholera occasionally appear in Southern ports.—Miss Charlotte Adams, of Boston and 8 other ladies, have just received the title of M.D. from the Female Medical College of Pennsylvania.—A woman, who was born at Lyons, died on the 15th of May, at the age of 140 years. Two years more would have carried her to the centenary of the Countess of Desmond, who died in Ireland at 142.—Edward Cranston, the Kent giant, said to be the largest boned man in Europe, measures 7 feet 6 inches, weighs 300 stone, can reach perpendicularly 10 feet 6 inches, and is under 21 years of age.—Smallpox has been destroying the Cheyenne and Snake Indians near Utah, the Mormon City, to a dreadful extent. On one occasion they piled up the bodies of 300 victims to the malady, and burned them.—The Boston Medical and Surgical Journal asks, "What has become of the hundreds of itinerant professors of animal magnetism with which the country was flooded a year since?"—Dr. Alexander Mayer, of Paris, announces a great discovery, heating bodies, cooking, &c., by means of friction instead of fuel.—Drs. Mott, of New York, and Wilson, of Boston, have been elected members of the Academie de Medecine of Paris.—The seeds of celery and parsley have been shown to have a decided influence over malarial fevers, although their operation is not equal to quinine.—It is computed that no less than 400,000 of all ages and both sexes of the Indians at Nevada, have been destroyed by smallpox during the past six months, being one-tenth of the whole number. They are totally helpless when thus attacked.—Dr. Corbett has discovered that the drones among bees are the males.—Mrs. Blanchard of Ticonderoga, 78 years of age, has cut a new set of teeth, the Dental News Letter.—Dr. J. M. Todd, of Monongahela city relates that a new set of bone has been reproduced, in place of a piece taken away by a surgical operation on a boy's jaw, and that new teeth are being developed from the new bone.