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THE

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—OF—

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CRITICISM AND NEWS.

EDITED BY

J. FULTON, M.D., M.R.C.S. Eng.; L.R.C.P., Lond.

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THE CANADA LANCET.

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Original Communications.

STRICTURE OF THE URETHRA TREATED BY CHEMICAL GALVANO-CAUSTIC, OR ELECTROLYSIS.

BY DR. CARLOS BETTENCOURT, OF PERNAMBUCO.

(Translated from the Portuguese of Uniao Medica.)

BY JOSEPH WORKMAN, M.D., TORONTO.

Electrolysis has been employed in the cure of strictures of the urethra, aneurisms, and various tumors. In 1807, Davy tried to destroy a fillet of muscular fibres with a pile of 150 elements, noting in its rapid decomposition alkalies at the negative pole and acids at the positive. Here were established the primary lineaments of the method, which Nelaton called electrolysis, and Iripier chemical galvano-caustic. After the celebrated experiment of Davy, some time having elapsed, Pravaz, Ciniselli (of Cremona), Broca, Nelaton, Velpeau, and numerous other celebrated surgeons, employed the method to destroy tumors and urethral strictures. Before, however, thinking of the application of galvanism, numerous empirical experiments relating to surgery were made; but the operatorial conditions being ill determined, and the interpretation of the results unsatisfactory, these investigations were abandoned. Between 1841 and 1848, Crussell, of St. Petersburg, wrote several memoirs on the electrolytic treatment of certain engorgements and tumors These works, in their plurality, are inedited, and are to be found in the archives of the Academy of Science in Paris. After some years of study of the method of cauterization, based on the analytic properties of the electric currents, Crussell renounced the thermo-galvanic method, and engaged in the study of *thermo-galvanic cauterization.* It is certain that this author had a confused view of the grand resources of electrolysis, and an extremely vague notion as to the idea of the surgical applications which might comport with this order of phenomena.

Ciniselli is the only one who won the honor and the applause of having brought electrolysis to a perfectly definite method, through having comprehended its mechanism and capabilities, regulating the processes of its construction, and leaving no hesitation as to the nature and extent of the services which it may afford. The surgical value of the method was not completely attained by Ciniselli. It was Tripier who had the merit of appreciating the advantage of negative chemical galvanism in the treatment of urethral strictures, basing his conclusions on considerations and facts of another order, and impressing them on his followers during his service in the hospital for children, in Paris, where certain scrofulous manifestations had been treated by the application of caustics, the result of which was judged of by the cicatrices produced. Soft and smooth cicatrices were attributed to alkaline applications, and hard and rough ones to acids, or the actual cautery. I set about studying experimentally," says Tripier, "the influence exerted on the cicatrix by the chemical origin of the wound;" he concluded from his experiments that chemical caustics give two principal sorts of cicatrices; the alkaline give soft cicatrices, which are but little, or not at all, retractile; the acid ones give hard and considerably retractile cicatrices; the negative pole of the pile gives cicatrices identical with those from alkalies; the positive pole gives cicatrices comparable to those from acids, and from the hot iron. Ciniselli precisely described the experimental conditions of a phenomenon, whose mechanism was first understood by him, from a series of facts observed with all the rigor of logic, and he thus became the creator of the method; Tripier, by assimilating the practical consequences of the facts empirically observed, and conjoining these consequences with preconceptions exclusively original, described the therapeutic indications of the method, with all scientific rigor.

The result of the investigations of Campos Bautista and Palomeque, in an inaugural thesis of 1870, fully confirm the proposition formulated by Mallez and Tripier, in relating their own experiments. Thus, then, negative electrolysis will be employed to destroy strictures of the urethra, and will furnish a soft, smooth and dilatable cicatrix;

the positive chemical galvanism will be used in the cure of aneurismal tumors and will give an albuminous coagulum. The attempts of Crussell and Wertheimber having failed to realise the idea of causing galvanism to act on urethral strictures, proved unprofitable. Their apparatus was imperfect, for the purpose of dissolving the peri-urethral engorgements, to which they ascribe the producing cause of the urethral contractions. The electrode of Mallez is a staff, terminating in an olive, or a cylinder, and it is covered, excepting at its point, over its whole extent, by a gum-elastic sound. This instrument is introduced by a conductor; its management is difficult. The author had the idea of furnishing it with a conducting sound, but for several reasons he gave it up. Dr. Jardin, his clinical assistant, had an instrument constructed under his own instructions, similar to the urethro tome of Maisonneuve—less the cutting blade—which was substituted by a rhomb of platinum, and had the catheter protected by a sheath of gum-elastic. This instrument is perfect; it acts well, and there is no fear of injuring the wall of the urethra. The author presented it to the Paris Academy of Medicine. In the course of the month of January, 1885, I tried some experiments, in which I employed the two instruments. I took a large piece of the muscles of the loin of an ox, containing a dense aponcurosis, which divided the piece into two portions. A tent-canula was introduced perpendicularly, making a traject which merely gave passage to a canulated catheter of Jardin. I passed the lamina along the sulcus far enough to come into contact with the muscular texture. The positive pole of the pile of Gaiffe was placed on the muscle at a distance of 10 centimeters; the negative pole was placed in communication with the electrode. The circuit was made with the positive electrode. The distance through which the lamina had to pass was 8 centimeters, in reaching the aponeurosis at the centre. At the end of six minutes it appeared at the opposite orifice, having traversed the space without resistance. Now we know that aponeurosis is a hard, fibrous composite of bundles of laminous and elastic fibres, which interlace and form a compressed web, sufficiently resistent, and comparable to the fibrous texture of the urethral stricture. The same experiment was made with the instrument of Mallez, which gave the same result, but not so promptly as the lamina of platinum. Another fillet of muscular fibres and aponeurotic tissue was encased by the metallic wire of our polypotome electrode, which is a modification of the constrictor of Maisonneuve, establishing the electric current; the primitive (positive) pole was put into communication with the instrument, contrary to the first experiment, and the negative pole with the muscle, thus making the circuit. The experiment lasted 40 minutes; the wire became lost in the muscular texture and the tendinous parts, but desiring to hasten the result, I broke it. In proportion as the wire decomposed the textures, a fume of sour and piquant taste was formed, coincidently with the liberation of the gases; this fume was quite saponaceous at the negative pole. From the dissection of the parts traversed by the electrode the disorganization of the textures was exhibited, and we were satisfied that positive chemical galvanism, by the process employed by us, is an incontestible fact, which can be realised by any physician. We employed this process in the extirpation of an extra-uterine polypus, before we had seen the book of Tripier—*Electrologia Medica*—which we received a good while afterwards.

Dr. Fort, when acting as a clinicist in Rio de Janiero, relative to failure in an operation by electrolysis, published in the *Gazette des Hopitaux*, of Paris, No. 54, an observation which we here introduce, together with the reply of Dr. Jardin, because they are both very instructive. Dr. Fort says, "since I practised chemical surgery in Brazil, I have operated a considerable number of times on strictures of the urethra. I employ *linear electrolysis*, on a large scale, according to the process of Dr. Jardin. In the present instance I would ask Dr. Jardin whether his instrument might not be modified, with the view of avoiding all possible failures? The lamina of platinum, not cutting, which destroys a point of the stricture, appears to me too small, and I think it might, without inconvenience, be enlarged in its depth to the extent of 3 millimetres. I deem this necessary, considering the thickness of the canal of the urethra and its relations with the corpora cavernosa in the upper part." The following are Dr. Fort's reasons given in demonstration of the utility of a modification of the lamina:

1st. In certain individuals the stricture presents some thickness of pathological texture, connected

with some dilatability of the strictured point. What happens? It is the fact that the electrode, whose lamina is not sufficiently projected, does not destroy linearly more than a part of the thickness of the pathological texture. After the operation a number 18 sound, of the scale of Charriera, is passed through, but sometime afterwards the old undestroyed tissue contracts anew, and thus is lost the benefit of the electrolysis, which ordinarily gives place to a soft, neurotractile cicatrix." Dr. Fort has observed several analogous cases, and he says that they are recognised by the reproduction of the stricture, which may be expected in a few months. "Let us then," he writes, "elevate the lamina of the electrode." "The *ecraseur*, combined with the chemico-galvanic cautery—a lacing of metallic (iron) wire, conducted by an isolator," says Tripier, "forming one electrode of a current whose circuit proceeds to closure in the vicinity—will operate simultaneously by crushing and cauterization. In the ablation of uterine polypi, for example, the ecraseur will be the positive electrode, in order to diminish the possibility of hemorrhage; in the ablation of pediculate hemorrhoids, it will be the negative electrode, in order to diminish the retractile tendencies of the cicatrix" That we may not be accused of plagiarism, this point calls for rectification. We have said elsewhere that Nelaton, in 1864, operated in this manner on a naso-pharyngeal polypus, but he availed himself of an apparatus consisting of a canula of guttapercha, containing two needles in its interior, which he implanted in the body of the tumor. The process employed by us is different. Reflecting on the result obtained by the rhomboid lamina of the electrolysor of Jardin, on stricture of the urethra, and considering that decomposition is made rapidly, without pain and without hemorrhage, we entertained the idea of extirpating this polypus by electrolysis. Some physicians, among whom is one of my friends, doubted the result. There stand the words of Tripier to convince them, once for all, of the reality of the process. Some also have doubted the action of electrolysis in urethral strictures, thinking that instead of decomposition there is divulsion, which in the hands of able surgeons has given excellent results, according to the reply of Dr. Jardin to Dr. Fort, when this surgeon said he had decomposed a stricture of the urethra in 25 seconds! Dr. Jardin affirms that in this short period of time electrolytic action does not come into existence.

2nd. In certain patients the stricture is short, probably not very thick, and possessing great elasticity. The lamina of platinum of the electrode traverses the stricture from before backwards; afterwards it passes, on withdrawal, in the inverse direction. The patient urinates better for some days, but relapse follows. If, in this case, the lamina were more elevated, a certain degree of tension would result in the strictured ring, and chemical destruction would be produced. Mr. J—— came to consult Dr. Fort in May, 1883, about a short stricture which allowed a number 9 sound to pass. "I treated it" he says "with the linear electrode of Dr. Jardin. During some weeks the patient was better. The symptoms became worse, and the stricture attained such a degree that it did not admit a No. 4 sound during the night of Friday. On the next morning the patient introduced a No. 6 sound. On Sunday morning I passed into his urethra a No. 8 sound, and left it in for an hour. Afterwards a No. 9 sound, during half an hour. I next passed a conductor and the canulated catheter, which fortunately reached the bladder. The lamina of platinum of the instrument of Jardin was applied against the strictured point, and the circuit was made. The operation lasted twenty-five seconds. I employed 18 elements of the pile of Gaiffe, making slight pressure on the ivory button of the electrode. The flow of urine is large enough, and everything leads to belief in the absence of reproduction" (of the stricture).

In our own operations we always avoid making pressure on the ivory button of the electrode in order to procure the decomposition of the pathological texture by the proper action of the chemico-electric current. Afterwards, and always when the lamina has passed rapidly, we take care to delay it at the level of the point of stricture, so that the contraction may be attacked both in front and rear.

PART SECOND.

CHEMICO-GALVANIC CAUTERIZATION WITHOUT A CONDUCTOR, OR ELECTROLYSIS BY THE PROCESS OF JARDIN.

"Traumatic strictures of the urethra justly pass as incurable," says Dr. Jardin. In reality we must

confess that the means employed, and particularly that of internal urethrotomy, by the process of Maisonneuve, have furnished insufficient results, and but of short duration. Valvular strictures have, almost always, for some time past, been treated by urethrotomy, with the cutting blade (lamina). In the first case—traumatic stricture—an operation is practised which gives a result only more than middling, and in the second—valvular stricture—an operation is performed of great gravity, to combat an insignificant lesion. It is from these considerations that we deem it useful to relate the history of a case of traumatic stricture, which we shall first give, and also of a valvular, one which was twice treated by incision, according to the process of Henrteloup, and which, having a prompt relapse, yielded completely to chemico-galvanism.

Early in December, 1880, J. D., a child of ten years, fell on his perineum, on the head of an iron bed. His mother observed a bloody discharge from the urethra, which stained his clothing. The history from the moment of the accident up to the day on which we saw him, is as follows: On the first day, urethral hemorrhage, fruitless trials of catheterism, cold compresses to the perineum, a hæmostatic potion. At the end of 20 hours the hemorrhage ceased. During the 8 days following, absence of blood in the urine, micturition rather free, though painful, absence of fever, extensive ecchymosis in the perineum, with infiltration of urine. Urethral hemorrhage, without appreciable cause, on the ninth day, but it was stopped by applications of ice to the perineal region. On the next day the little fellow was brought to the hospital for children, when catheterism was practised with a metallic sound, and then he was taken home. Douches were employed during three months, by advice of the physician. During this time micturition became constantly more difficult; the flow of urine became gradually thready, and finally came only in drops; rentention ensued, and urine passed only when engorgement was reached; this condition resulted in diurnal and nocturnal incontinence. It was in this state that the patient was presented to me on the 7th of July, 1883, 18 months, more or less, after the accident, in a state of considerable emaciation. He was constantly wet with urine, and in the urethra there was found, at the level of the bulbo-membranous region, a hard stricture, resistant and impassable. There was also an elongation of the prepuce with a marked constriction of its margin—a congenital phymosis. Catheterism was tried with filiform sounds during many days, without success in passing the stricture. Several vesical punctures were made in order to remove the great distension. From palpation of the perineum we formed a sufficiently exact notion of a hard and pretty long stricture, situate nnder the symphisis pubis. We then decided, without giving up the attempts at catheterism, with very fine whalebone sounds, to practise circumcision, which was effected on the 11th of July, 1883. As soon as he recovered from this operation he disappeared for three months. In the beginning of November catheterism was again tried, without success. We then resolved, in the middle of December, to make, in the forward part of the stricture, application of the chemico-galvanic cautery, without the conductor, of which Dr. Mallez made use on the occasion of the first applications made by him with Dr. Tripier, which had often given excellent results. This operation was practised on the 14th of December, 1883. The patient was subjected to chloroform. The galvanic cautery was introduced into the urethra. One of the extremities was placed in contact with the stricture, and the other with the negative pole of a pile of chloride of zinc, of Gaiffe, whilst the positive pole corresponded to the electrode placed on the thigh. A current from 18 elements was kept in action for 15 minutes. The milli-ampere showed 45 degrees. During these 15 minutes of action of the pile, the galvanic cautery penetrated a little into the texture of the stricture, which offered considerable resistance. We therefore took care not to exert much pressure, as it was our desire to modify only the forward part of the stricture so as to render it permeable to sounds. No attempt at catheterism was made after this sitting. The patient returned after six days, and we were able to pass a filiform sound, which was strongly grasped by the stricture. Catheterism was regularly followed up, two or three times a week, and at the end of January, 1884, we passed a number nine of the scale of Charriere. The incontinence became modified; the patient passed several hours without involuntary escape of urine, but the night incontinence persisted.

In the first days of February dilatation gave no further result. In presence of the impossibility of

continuing the dilatation, and encouraged by the advantages gained in the first sitting, from galvano-cautery, we decided on a second sitting, which took place on the 15th February, 1884. We performed it with our galvanic cantery with the running, not cutting, lamina, and the lamina chosen was the less size, that which, joined to the staff, corresponds to number 13 of the scale of Charriere. The selection of this small lamina was based on the idea which we entertained of the hardness of the stricture, and of its possible great extent. We thought we could, with a small lamina, run through the whole extent of the stricture, as slowly as might be necessary for establishing an eschar at all the points passed through. The sitting lasted twenty-three minutes; twenty elements of the pile of the bi-sulphate of mercury, of Chardin, were employed. The lamina traversed the stricture with sufficient facility, over the distance of a centimeter and a-half. After traversing the stricture, which was accomplished in four minutes, we drew back the sound to the most contracted point, and detained it there for 19 minutes, acting with 20 elements.

I introduce here a parenthesis, in order to reply to Dr. Fort, who, in No. 24 of the *Gazette des Hopitaux* of 8th May, 1884, published a case of stricture which was soon reproduced, and he attributed the failure to the instrument (the electrode) which, as he thought, had a platinum lamina that was not projecting enough. "Let us," says Dr. Fort, "elevate the lamina, and we shall avoid failures." We have only one nly to make to this remark; it is this: We are a to place, at will, in the canulated catheter of our instrument, any one of our seven rhomboid laminas of platinum, the least of which is equal to No. 13 of Charriere, and the others are of succeeding numbers.

Before speaking of the choice of a lamina, we, *en passant*, say that from the beginning of our applications of the chemico-galvanic cautery, we renounced the cutting laminas which we got constructed, as we wished to penetrate the texture of the stricture, and to detain our lamina there so as to produce an eschar with more certainty Internal urethrotomy had been complicated with electrolysis, and was effected in very bad conditions. We also renounced laminas fixed on the electrodes, an arrangement which might appear advantageous, but which in reality presents two inconveniences of great moment: In the first place it obliges us to withdraw the whole apparatus from the urethra, when it may be necessary to change the lamina; in the second place, and this is even of greater moment, it does not, in many cases, permit us to recognise the cause of the stopping of the instrument in the canal of the urethra.

But let us return to our selection of the lamina. Notwithstanding the great number we have, we use only the smallest, and avoid, as much as possible, large ones, the elevated, to which Dr. Fort appears to give preference. This decision has arisen from the large number of facts observed in our applications of chemico-galvanic cautery, practised in the canal of the urethra, and from the experiments made by us on living animals as well as on the flesh of these after death. We shall cite merely two capital facts which, alone, will justify our mode of thinking. We know that in our organism, the blood is one of the best conductors of electricity. If, by chance, in chemical galvanism, the platinum lamina, placed in contact with the texture of the stricture, becomes moistened by some drops of blood, the current will be turned away, and the phenomena of electrolysis which should be produced by those of chemico-galvanic cautery, are transferred to a point more or less removed from the stricture. Hence comes failure despite the elevation of the lamina of platina; because when an instrument penetrates, by an opening, into an irritated and congested mucosa, there is every probability of a hemorrhage, however insignificant. On the other hand, it may be believed that with an elevated lamina, the pressure on the texture of the stricture being stronger, the eschar produced will be deeper than that from a less elevated one. This idea is erroneous; because if the lamina be placed on a piece of flesh of an ox, and the circuit of a large electrode be closed in this flesh, it is seen that the extent and depth of the eschar is not proportioned to the pressure used; but merely to the time, and to the number of the elements put in action. From these considerations we think we may draw the conclusion that the failures we recorded in the commencement, and those communicated to us by Dr. Fort, were due to one of the causes we have now cited, and not to the imperfection of the instrument. Dr. Fort, in the observation published in the *Gazette des Hopitaux*, says, that in the second sitting, aided by an elevated lamina, he traversed the stricture in *twenty-five seconds* and with success. It

is possible that such an event happened : but in this case the success was due to a well made divulsion, since galvanic cauterization in 25 seconds is not possible, whilst direct divulsion has furnished fine results in the hands of able surgeons.

Let us now return to our subject. We practised, on the 15th of February, 1884, a sitting of 23 minutes, using twenty elements with the bi-sulphate of mercury. There was not a single drop of blood. The patient rested during ten days. He urinated copiously, and the diurnal incontinence disappeared. There were many nights in which involuntary escape did not occur. It is true that his mother always took care to rouse him at least once every night. On the 27th of February, 1884, we made another dilatation, and we repeated this operation afterwards three times weekly. The texture of the stricture seemed to have lost a little of its hardness, and this permitted us to advance, at the end of a week, to No. 13 of the scale of Charriere. In the course of the month of March both the daily and nightly incontinence ceased. The patient's health improved rapidly, and the dilatation was prolonged until May, when we decided on another sitting, under the chemico-galvanic cautery, in order, in the words of Tripier, to throw some more negative elements into the texture of the stricture, and consequently to diminish its tendency to retraction.

On the 9th of May, 1884, we had a new sitting of electrolysis, with 20 elements of the bi-sulphate of mercury. The lamina, employed, when joined with the catheter corresponded to No. 17 ; the stricture was traversed in three minutes ; afterwards, having conducted the lamina back to the level of the stricture, it was kept there for 17 minutes. There was complete absence of blood—a condition eminently favorable, even indispensible for securing direct action on the stricture. A number 15 was easily passed on the 19th of May. It is worthy of notice that after each sitting the child was exempt from all febrile reaction. Summing up : Here was a traumatic stricture—that is, one formed of fibrous textures, hard and unyielding—a condition justifying the qualification *incurable* as applied to this class ; but after three sittings under electrolysis, I succeeded in passing a No. 15, and the texture of the stricture became so modified that it lost the tendency to early retraction.

Let us now see some notes on organised and vulvular strictures which yielded to electrolysis after they had resisted the old processes. These observations are necessary in order to combat the erroneous and captious opinion of those who are disposed to regard the method as bad, and inferior to the old system. The words and facts of Drs. Jardin and Mallez, contained in these notes, are very convincing, and they enable the impartial reader to judge, and to weigh the different opinions with all rigor and critical exactitude. But first let us discuss the value of the method and contrast it with internal urethrotomy.

Colonel F—— presented himself to Dr. Mallez in March, 1881. He experienced extreme difficulty in the act of micturition, though the volume of the flow was not much diminished. He said this was the third time that such trouble had fallen to him. The first was in 1879, when he found extreme difficulty in voiding urine, and felt a sort of a point of stoppage in the canal, because of which he applied to Dr. Henrteloup, who diagnosed a stricture, and had recourse to his method of excision. For some months there was improvement, but hardly had a year elapsed when the first symptoms reappeared. Dr. Henrteloup made a second excision, in 1880, and the difficulty in urinating disappeared, but the act was always somewhat painful. In a few months the difficulty reappeared, and gradually became greater. In the first months of 1881, the patient often used a small sound, in order to facilitate the flow of urine. It was at this time that he consulted Dr. Mallez, who diagnosed a valvulur stricture, and decided on practising chemico-galvanic cauterization. The application took place in April, 1881. It lasted 15 minutes ; the pile used was composed of elements of the chloride of zinc. Dr. Mallez made use of a galvanic cautery formed as a metallic olive, conducted by a staff which also was metallic, and sheathed in an isolating substance. The conductor was a long fine sound. The olive, having reached the stricture, passed through the valve in a short time, but it was again brought back into contact with it during some time, which was necessary to produce the desired eschar. There was no febrile access, and on the following day the Colonel returned to his usual mode of life. From the first day micturition was effected very well, and during three years nothing extraordinary occurred, as concerned the urethra, excepting in April, 1884, when a diminution in the volume of the discharge, that attracted the patient's attention,

appeared. Considering the remarkable improvement which the patient had obtained, Dr. Mallez, when again consulted, advised the same method, and in the course of April he had a sitting of electrolysis lasting 14 minutes. Sixteen elements of a pile of bi-sulphate of mercury were brought into action The olive of the galvanic cautery passed the stricture in a minute and a half, and being then drawn back, it was delayed for 14 minutes. From this day the flow of urine resumed its normal force and volume, and ten days afterwards Dr. Mallez found that the canal admitted, without difficulty, a number 18.

These two clinical histories, from their importance, merit particularly the attention of physicians; the first, especially from being that of a case of traumatic stricture of the urethra, as it presents, in reality, an example of cure (obtained after the employment of three sittings) of a case that had before resisted all the means employed and was regarded as incurable. In these two clinical histories it is seen that electrolysis may perfectly supplant internal urethrotomy, in cases of complete obliteration of the canal of the urethra, or in impassable strictures, by means of the galvanic cautery, without the conductor of Mallez. Dr. Jardin followed the process of his master in giving entrance by means of the conducting sound of his instrument, which he subsequently applied, thus effecting the cure of an affection considered incurable, by means of the old processes. In such cases by having recourse to electrolysis, seeing that its employment cannot result in any accident, we avoid unnecessary cutting of the urethra. This advantage is owing to the employment of the instrument of Mallez. We have also seen that though employing, at the commencement of his experiments, the galvanic cautery without a conductor, he mentions the possibility of the application of the conducting sound, which he afterwards omits, giving his reasons for so doing; but we again find him using electrolysis with a conductor, as we have seen in the case of the Colonel. This shows us that practice is a great book of study, from which we may imbibe in large drafts, aided by the light of logic and of critical judgment, all the notions complementary to any idea whatever.

We may now compare the observation of Verneuil, published in No. 48 of the *Gazette des Hopitaux*, 1884, relative to the accidents consecutive to external urethrotomy, with that of Jardin, which we have before given. "Three weeks ago, more or less," writes Verneuil, "I made repeated attempts to penetrate into the canal of the urethra of one of my patients who had an impassible stricture. In consequence of this there was a slight urethritis with some febrile disturbance and some glandular swellings. We let his urethra alone, and after some days, by means of emollients and resolvents, all these symptoms ceased, satisfying us that in this relation all was ended. Now, if on this side it was necessary to wait a certain time in order to avoid any relapse, on the other side interference became urgent, and external urethotomy must be practised. Four days after we proceeded with the operation, without a conductor. The perineum was found in a good state; there was no fistula; I penetrated into the urethra, and then, introducing a catheter, I opened the canal with the thermo-cautery in front of the stricture; I then tried to reach the bladder. During half an hour I made various attempts in vain, and I was forced to stop. Moreover, there was no inconvenience in this, as patients usually urinate on the next day through the perineum, and in a few weeks, by means of this fistula, a sound is conducted into the bladder and the operation is completed in another sitting. I had believed that my interference would not be followed by accidents; unfortunately I had not taken into account the wound; the introduction, several times, of the sound, provoked reproduction of the urethritis; there was an auto-inoculation; the lymphatics became again inflamed; the glands were engorged, a double inguinal adenitis resulted, and the lymphangitis extended to the scrotum. How was the auto-inoculation produced? It was due to the little microscopic erosions, which favor the inoculation all the more the less they are. Some are of the size of vaccine pricks, and their success is in proportion to the insignificance of the injury. The wound in the perineum, made by the instruments, is not the cause of this lymphangitis; the cut is perfectly healthy, whilst at the same time the erosions of the passage which appear only accessory, are, on the contrary, the true cause. Whatever may be the state of my patient, it occurs to me he will not succumb; but, in the event of death, it ought to be imputed to some insignificant erosion of the canal, caused by the introduction of the catheter. It is hence to be inferred, that when

you find yourselves confronting two coincident injuries, it is well to look equally to both, and, besides, to conform to this precept: *do not operate too soon.* Here, it must be confessed, the intervention was much too soon, that is, before the canal had returned to its normal state. It is one of the errors frequently fallen into in foreign cliniques, in which the patient is operated on the day after his entrance. For this reason I always forbid my pupils—except in cases of urgency—to explore the urethra on the patient's entrance. Summing up then: 1st. It is imperitive not to injure inflamed textures, unless under absolute urgency; 2nd. By proceeding hastily a door is opened to auto-inoculation; 3rd. This may be the result of a microscopic wound; 4th. Adjuvant operations have an especial gravity, which may be followed by accidents in practising a minor operation."

There is not a doubt that the preceding observations have been traced by the hand of a master, one of the most celebrated surgeons of Paris, and that the accidents following his surgical intervention were due solely to the old system. He had in hand an impassable stricture; there was necessity to interfere, and Verneuil performed the operation; he effected external urethrotomy, and thus gave place to all that cortege of accidents, which placed the patient in a deplorable state, worse in fact than that in which he was before his entrance into the hospital. Mallez, with his galvanic cautery, without a conductor, has, by electrolysis, succeeded in reaching the bladder without cutting the urethra, thus avoiding a painful operation, which is full of peril and accidents, as we have seen in the case of Verneuil. The celebrated electro-therapeutist proposes the substitution of the process, and he abandons external urethrotomy, in presence of the excellent results he has secured in his practice on the urinary passages. As to the advice of Verneuil, we daily infringe it, in exploring and operating on the patients who come to consult us, and we have not had any complaint as to our mode of proceeding, since no accident has accompanied or followed the sittings of electrolysis, which are usually, at the least, unsucceeded by accesses of urethral fever.

In the present state of science two theories are offered in explanation of the cause of urethral fever. The first is that of inoculation; Maisonneuve was the first who, in these cases, spoke of auto-inoculation, and of the accession of consecutive septicæmic fever. The second theory is that of nephritis. "When one is young," says Verneuil, "he may be absolute; when he grows old, he turns eclectic." Maisonneuve was the initiator of whatever has been done as to inoculation from septic products in wounds; and although his memoir saw the light only in 1862, he had for a long time before taught the same in his course. In the meantime, as I was a disciple of Maisonneuve, I found myself tied to the theory of nephritis; I profess the same idea to-day, but with this difference—that I accept both theories, that is, renal congestion in chronic nephritis, and the wound with septicæmic auto-inoculation. In another case, more or less identical, Verneuil shows his embarrassment and his inability to relieve a stricture periodically impassable, if we may be permitted to say so. "Now," says he, "after several attempts made in the meantime with the greatest care, without using any violence on the urethra, the patient was attacked by a very violent access of fever—urethral fever, according to all the probabilities; at the same time the right testicle was enlarged and became the seat of an orchitis consecutive to catheterism. A surgical nephritis, pretty notable, was realised, a parenchymatous nephritis, which gave place to intense albuminuria. Here was an exploration of the urethra resulting in the accidents of albuminous nephritis and an anomalous orchitis.

From our first urethal explorations we have employed antiseptic catheterism, being convinced that Listerism is a potent enemy of the great microbian family—the cradle of the innumerable accidents that complicate the majority of surgical interventions. This great discovery, which had its dawn with Pasteur, in France, broke forth in grandeur in Albion with Lister, the great propagator of the method which has taken his name. To annihilate the microbes with antiseptics is to close the door against the assaults of these parasites, whose distructions are always incalculable when their presence becomes permanent. The action of antiseptics is to-day admitted by all those who have been enlightened by the sun of discoveries, which now floods the intellectual universe with its fecundating beams. "Antiseptic therapeutics," says Bouchard, "is the therapeutics of the future." Listerism is even yet disdained by some celebrated surgeons, who consevatively stick to the old doctrines

despite the cheats daily suffered by them. Antiseptic catheterism, antiseptic surgery, prevents the series of accidents which are met with by those who do not employ it. Had Verneuil vigorously followed Listerism, as it has been taught by its author, it is certain that he would have been sheltered from those surgical complications which many times embarrass the operator who despises it.

The employment of carbolised vaseline at 2 per cent., with which the surgeon ought to lubricate his sounds, as well as the instruments that have to penetrate into the urethra or the bladder, is a very rational proceeding, and it brings all the desirable advantages. By adopting this means, which is easy of execution, and is available by every one, contrary to that which Verneuil advises, we practise catheterism as soon as the patient is presented to us, and we continue the operation when ever it is possible to introduce the conductor of the instrument of Jardin, which we also disinfect. We well understand the necessity of disinfecting an instrument that is bathed, in almost its entire extent, by decomposed urine, which is often infectious. To penetrate into the urethra and bladder of a patient, wherein slight excoriations are often produced, without taking the advised precautions, is, so to say, to hasten the evil work of the microbes.

Another discovery not less important to the surgery of the urinary passages has recently been made. The hydro-chlorate of cocaine, an alkaloid from the coca of Peru, which at first was destined to ocular surgery, as an anæsthetic, producing insensibility of the sclerotic, has come in to afford great assistance in the operations of minor surgery, in which the patient, in many instances, refuses to undergo chloroform in order to escape pain. Some English surgeons have employed the hydro-chlorate of cocaine, in surgical processes on the pharynx and the larynx, the nasal fossæ and the rectum, in ablation of the neck of the uterus (the 10 per cent. solution), and in all the cases local anæsthesia has been thus obtained, so that we advise it in operations on the urethra, applying it in instillations by means of a sound of Guyon. Unfortunately its high price must prevent extensive trial of its virtues. Some houses in London have lowered the price to one and sixpence for 5 centigrams (say 36 cents for $\frac{3}{4}$ of a grain) with the view of encouraging its employment. We see then that this discovery may be turned to profit in bloody surgery of the urinary passages, in external and internal urethrotomy, but not in chemical galvanism, which is not painful, and constitutes in itself, at the negative pole, an anæsthetic, as Tripier affirms.

NOTES OF AN ANOMALOUS FORM OF CHOREA.

BY DAVID INGLIS, M.D., DETROIT, MICH.,

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The following case being an unusual one and illustrating some points in the natural history of chorea, is deemed worthy of report. Heinrich K., æt. 66 years, farmer, has a history of chorea lasting now nearly forty years. In 1846 the patient (at that time a shepherd) was constantly exposed during an unusually wet summer and at night frequently slept on wet straw in his shepherd's hut. The succeeding winter was intensely cold and he then began to show the first symptoms of the disease, which was a jerking of the right leg. The disorder gradually, but within a few months, invaded other parts of the voluntary muscular apparatus until, except the face, few if any groups of muscles have been spared. This jerking consists in sudden and violent involuntary muscular contraction, as, for example, he is obliged at times to leave the table when at meals as the jerking of the arm is so pronounced as to prevent him from carrying food to his mouth. By walking about for a few minutes he is usually able to resume his interrupted meal. Again, while sitting quietly engaged in conversation, the muscles of expiration will occasionally contract with violence, so as to cause an explosive expiration. When the patient rises and starts to walk, after taking one or two short steps, he will suddenly stagger violently as if about to fall and in apparent effort to regain his balance will stamp upon the floor with great force and erratic movement; having regained his balance, will take a few properly co-ordinated steps and again stagger. This peculiarity of gait differs from the gait of cerebellar disease in that it is not caused nor accompanied by any sensation of dizziness, occurs on either side and is not in any sense a rotary motion. It is also a curious fact that, although the impression of a bystander is that he must certainly fall, he has never, in all the forty years, done so.

Another phenomenon and one which renders the case unusually interesting, is, that when the patient has fairly gotten started he can walk with very little interruption.

I think it was Sidney Smith who remarked about walking, that if a pedestrian sets out to accomplish a given distance, say five miles, he can do it with ease and with little or no weariness; but if one sets out over an unknown road for a place whose exact distance is unknown but supposed to be a couple of miles, if it turn out to be five miles the traveller will be weary. In other words, the traveller in the first case is "wound up" to run five miles and that being done the rest of the walk becomes automatic, while in the latter case there is required a constant exercise of volition. So, in the case of our patient, the first setting out requires the control of the cerebral cortical centres, but when he has fairly got a-going and walking becomes automatic, the lower co-ordinating centres taking control, the patient does well enough. Not only is this the case with walking simply, but the patient will stagger out from his home to his fields and taking his hoe will do a steady forenoon's hoeing with only an occasional interruption. Hoeing, to a market gardener, has become automatic. The patient finds that the choreic movements are worse when making any voluntary movement after having been at rest, as, for instance, on first rising in the morning or when about to resume work after meals. He is, so to speak, being wound up. These movements however, while affecting only the voluntary muscular apparatus, are not confined to such times as the patient is making voluntary movements, but occur when he is at rest and quite frequently during sleep, so that at times the patient will be wakened by the violence of the movements which are not connected with conscious dreaming. The movements, too, are worse on the approach of and during storms, probably during the time of low barometer. They also become worse when the patient has been exhausted by much work. Further negative points as regards present condition are, that the patient is a ruddy hale old man, whose nutrition and general functions are carried on very well. Muscular strength good; mental faculties seem sound; heart sounds normal; sensation and reflexes normal; no paralysis, paresis, contractions or atrophy.

As regards past history, it may be noted that there is no history of defined rheumatism, nor of syphilis, nor has he ever had any paralysis. There have been in the past certain sensory symptoms, which have not been constant; these were, a sensation of painful cramp coincidently with the jerking, and a feeling "as if many worms, two inches long, were wriggling in the flesh," which preceded the jerking. Some ten years ago, had quite severe pains in the dorsal vertebræ, which lasted about six months; during part of that time the movements affected the muscles, causing constant alternating rotation of the head. At no time has he been delirious, but at various times during these forty years has been very dizzy, more in former years than of late. The dizziness, when it occurred, was not a passing sensation connected with the stagger, but a continuous sensation lasting many hours.

The case illustrates several points. 1st. The occurrence of chorea in the aged. 2nd. The fact that neither the general nutrition nor the mental condition are necessarily seriously impaired. 3rd. The economy of nervous force, by which movements which are habitual become to a certain extent controlled by lower co-ordinating centres.

CALCULUS OF THE FEMALE BLADDER REMOVED BY LITHOTRITY.

BY J. R. HAMILTON, M.D., ATTWOOD, ONT.

In the early part of January, 1885, I was called to see Mrs. A——, aged 59 years, a resident of the township of Elma. I found her complaining of violent pain in her back and sides, which was aggravated by every movement that she made. Inasmuch as I had attended her for one or two attacks of nephritic colic during 1884, I made some enquiries as to the state of the bladder, when she told me that she had on that day passed some blood in the urine, which alarmed her, and was one of the reasons why I was called in. I suspected stone but as I did not have a proper sound along with me I waited until the next day to determine the fact, giving her an opiate in the meantime. On introducing the sound next day I discovered a pretty solid stone without any difficulty. It was situated on the right side of the bladder, and apparently fixed, as I found it there at several subsequent soundings. As the patient was very sen-

sitive and stoutly objected to any operative interference at first, I merely prescribed a mixture of acetate of potash and hyosciamus, and advised her to drink barley water frequently. After a time she allowed me to try dilatation of the urethra, which I had preceded by injections of warm water about twice a day. After some futile attempts at crushing with dressing, and polypus forceps, and as the hopes of the patient were not realized in the expulsion of the stone; although position, the filling of the bladder with tepid water, etc., had all been tried, with no other effect than the apparent dislodgement of the stone from its first position, as I now found it in the bas-fond, and could detect no stone in any other part of the bladder I then, with the final consent of the patient, resolved to try lithotrity before resorting to lithotomy, as my patient was a very stout and plethoric subject with an apoplectic family history. On the 7th of May, after injecting nearly a pint of warm water into the bladder, I first heated and oiled a very large sound, nearly as large and of the same curve as my lithotrite, and after locating the stone, had not much difficulty in grasping it with the lithotrite and found that the diameter was one inch and a quarter by the graduated scale. On putting on pressure by turning the screw, I found that the stone appeared to shoot out of the blades, and as the patient was nervous I did not make any further attempt to catch it then, and merely washed out the bladder with some more warm water, after which I found a few fragments of stone and some sand in the urine. After this was passed I injected 6 or 8 oz. of linseed oil, and ordered the patient to remain quiet until I should have another sitting. At the end of three days I had another sitting, when the patient assured me that she could turn in bed better and much easier after the former imperfect crushing, due, perhaps, to the rough edges of the stone being somewhat ground off. I followed the same routine as before, but this time was more successful as I crushed it through with a great deal of difficulty, and after the washing found several larger pieces and more sand. I followed these sittings at various intervals according to the state of patient, until I had operated 14 times in all, when on the 3rd of June I had the satisfaction of crushing the last fragment, which was most difficult to catch. After this I had the bladder washed out once a day for a few weeks with tepid water, and some linseed or sweet oil injected occasionally. My patient was, in a few days after the last crushing, able to resume her household duties, and she says she has not felt as well for years, and is taking no medicine now only a dose of bicarbonate of potash in a bitter infusion once a day.

In regard to this stone which I have no doubt had been a long time in forming, the general symptoms had no doubt been overlooked, as a case of stone in the female bladder is so rare that few medical men look for or expect it, and surgical literature gives us next to nothing on its treatment. Even Poulet in his admirable work on foreign bodies in the female bladder scarcely says anything of stone, only as a casual formation around other foreign bodies. This stone had no foreign body for a nucleus that I could detect and was a triple phosphate throughout, although somewhat harder than a phosphate should be in the centre.

In reference to crushing in general. Civiale, one of the first writers on lithotripsy, and one who had great success, says: "it is a most important precept to make the sittings very short and to operate *very slowly and gently.*" I followed this precept religiously in this case, which, although requiring a great deal of time and patience, terminated most satisfactorily. Now as to the use of the crusher, I used Thompson's lithotrite, made by Mr. Stevens, which is much smaller in calibre than the lithotrites in use some years ago, and is in my opinion a model instrument. Nearly every author has his own method of handling a lithotrite. Gross advised a wriggling motion of the wrist, and some advise you to get the female blade under the stone, etc. I found that all these movements generally cause the stone to float out of the reach of the lithotrite, causing another search with the sound, and on this occasion I used a lead sound that I could bend to get the stone out of any cul-de-sac into which it might stray, which I found very convenient. I found after a few crushings that the easiest and safest way to catch the stone was to place the point of the lithotrite on it after getting it into the centre of the bladder with the sound, and then holding the lithotrite firmly with the left hand, left elbow supported, in order to prevent the lithotrite (which is much heavier than a sound) from gliding past the stone, reserving your right hand, of course, for the manipulation of the screw. After having once grasped the stone it is very easy to turn it upwards,

or any way, before putting on pressure, to ensure yourself that you have no mucous membrane, which is not often caught, I imagine, when you get the stone in the proper position first and have enough water in the bladder to keep the coats slightly distended. I don't think I ever caught the mucous membrance in this case of Mrs. A.'s, and I never saw *one drop of blood* in the urine after any of the sittings. I don't know what the result would have been had I used anæsthetics, but I never used them during the course of lithotrity and my patient had very few opiates or in fact medicine of any kind She had, however, used, and still uses demulcent drinks.

Correspondence.

THE NEW BRUNSWICK MEDICAL ACT.

To the Editor of the CANADA LANCET.

SIR,—The New Brunswick Medical Act, passed March 25th, 1881, provides that all physicians shall register their names in the Medical Register of the Province and receive a certificate of such registration before being entitled to practice; it also provides that the names of all registered practitioners shall be annually published in the *Royal Gazette*. The Act provides two penal clauses, viz: any person found practicing medicine, surgery, or midwifery in the Province without having registered is subject to a penalty of forfeiting $20 per day for every day of practice; and any person who claims falsely to have registered is subject to a penalty of $200. With the exception of the last clause of the Act, which provides that none of its provisions shall extend or be applied to clairvoyant physicians and midwives, the profession and people appear to be protected, but this is far from the truth of the matter. Every registered practitioner should have protection for the following reasons: first, because he is required to expend a large amount of capital and time to qualify him for registration; second, he is required to pay a fee of $6 for his certificate of registration; and third, under amendments passed to the Act, he is required to pay an annual tax to the Medical Council, or suffer his name to be erased from the Medical Register of the Province. The amendments do not seem to work satisfactorily, as the Medical Register of 1884 contained 200 names, while that for 1885 only contains 120. We have sought a reason for this delinquency, and the answer was, "we do not wish to contribute towards the benefit of the few, or pay taxes for which we receive no equivalent." Now, granting that the practitioner fully complies with the Act and its amendments, what are his privileges? He is legally qualified to practice his profession in the Province and to recover fees for his services; nothing more, nothing less. A quack may practice under his notice from day to day and exact exorbitant fees, while the physician is powerless to prosecute him—the power of prosecuting offenders being entirely vested in the Medical Council, the members of which reside in the cities far from the operations of quackery—and hence the result. "Dr." Sewell travels over the country visiting the sick, and prescribing "Morning Glory," and abuses his patients if they do not purchase his remedies; "Dr." Golden, prescribes cajuput oil locally for congenital cataract and receives a fee of $18; another "Dr." professes to heal the sick with roots and herbs, and dupes his patients with a mixture of chloroform, ether and aromatics, inflicting physical injury on some, while others are hastened to the grave. Language fails us in depicting the enormity of this imposition upon our profession and people. As members of the medical profession let us assert our rights, and urge our legislature to amend the Act, empowering every citizen of our Province with authority to prosecute offenders, and otherwise vindicate our Medical Act.

PRO BONO PUBLICO.

N. B., Aug., 8, 1885.

To the Editor of the CANADA LANCET.

SIR,—My attention was called to a letter in the February number of the LANCET over the signature of "A Resident Physician," Cornwallis, N. S. The article does not affect the writer personally, but I think it should not be passed over in silence by the profession in Cornwallis. Before rushing into print, it might have been well for a "Resident Physician" to ponder the old adage that "those who live in glass houses should not throw stones."

Only a few days ago I heard a brother M. D. charge your correspondent with the same breach of professional etiquette with which he charges Dr. B. M.D. seemed to be filled with quite as much righteous indignation, but I have not yet

seen it in print. Admitting the charges to be true, and overlooking the questionable taste of preferring them under a *nom de plume*, there is still a grave fault in "A Resident Physician's" letter. He has no right to drag Dr. B.'s "helpmeet" before the public. It is neither manly nor consistent with that *charity* which beareth all things. Let us not lose sight of our manhood and the dignity of our noble profession in our individual differences.

There is another subject which may interest your correspondent. He alludes to "professional advertising," and I would most respectfully refer him to a "card" in our local paper, in which Dr. —— claims among other things, to have made himself familiar with the methods of examination and treatment of eminent specialists in the various branches of medicine and surgery, and being supplied with the latest improved instruments for examinations and operations in disease, both of medicine and surgery, is prepared to give satisfactory counsel and treatment to all. Special attention given to diseases of the head, throat, and chest." Surely such a "card" is not in keeping with the ethics of the regular profession. It might do for Warner's Safe Cure, but I do not believe that sort of thing was learned from those "eminent specialists whose methods," etc.

ANOTHER RESIDENT PHYSICIAN.

Kings Co., N.S.

To the Editor of the CANADA LANCET.

SIR,—On page 373, LANCET for August, you say that in Ontario "no one can publicly practice who has not been found duly qualified after strict examination," and "that it is the duty of every one of us to support our representatives in the performance of their duties by a cheerful compliance with the reasonable demands made upon us."

Each of four neighboring villages to that in which I am located has a person practising within its borders who is not registered. Such being the case it cannot be surprising if some of the "duly qualified" find it difficult to exhibit that cheerfulness (which you say they ought) in complying with the demands annually made on them for fees Having myself paid between $70 and $80 for examination fees and annual dues, I would like to know what are the "privileges and immunities" which I, and others similarly situated, enjoy, for which "the medical men of any State in the Union would only be too glad to tax themselves to ten times the amount asked of us."

The proceedings of a notorious quack, who, for months made the two eastern Counties in Ontario the seat of his operations, lead me to doubt the correctness of another statement on the same page, viz: "that the people at large have much to be thankful for." They may congratulate themselves that they are not taxed to support the medical council, but that the law, as administered in these counties, affords them any protection from adventurers, is not a fact. GLENGARRY.

Aug. 10, 1885.

Selected Articles.

THE PERCUSSO-PUNCTATOR.

The subjoined engraving gives an accurate idea of the construction and mechanism of a newly contrived instrument for the treatment of rheumatic and other affections, as practically useful in its effects as simple in its construction. The inventor, Mr. Brindley James, penetrated by the result of considerable experience of the high efficacy of acupuncture in the treatment of rheumatism, lumbago, and obstinately persisting neuralgic affections, has succeeded in facilitating its application by this ingenious contrivance.

The puncturing needles A, can be protruded or withdrawn at will, by means of a screw E at the further end of the ivory handle D (which constitutes the body of the instrument), and by a connecting-rod G running through the centre of the latter. An electro-plated cap B contains the needles, and is connected with D by another electro-plated cap C, being attached thereto by a bayonet-lock. A further screw F allows of the connection of the needles (through the rod G) with an electric battery, should the case require it. Mr. James is indebted to the practical co-operation of Messrs. Down Brothers, the eminent surgical instrument-makers of St. Thomas's Street, and the sole makers of the percusso-punctator, for giving practical application to the instrument of his invention, the therapeutic utility of which will soon be universally acknowledged. It is the intention of the inventor to read a paper in the Surgical Section at the forthcoming annual meeting of the Association, illustrating the successful use of this instrument in a large number of cases.—*Brit. Med. Journal.*

CHLOROFORM *v.* ETHER.

SIR,—I confess to a certain feeling of disappointment that my letter on this subject, which appeared in your journal of March 7th, has not produced more expressions of opinion than it has. In THE LANCET only two have appeared, but I have had sent me from the States a reprint of an article in the *Boston Medical and Surgical Journal* of April 13th, 1882, entitled "Homicides by Chloroform," which in its condemnation of this drug goes further than Messrs. Braine and Buxton. Mr. Braine, after quoting my contention "that in the production of complete anæsthesia there is little or no difference (in danger to life) between chloroform and ether, whilst in the after-effects, especially as regards vomiting, nausea, and depression of spirits, chloroform is much superior to ether," and saying that this is exactly contrary to what he has been endeavouring for years to demonstrate, begs to point out to me that whilst ether is a cardiac stimulant, chloroform, on the other hand, is a depressor of the heart's action; that the former never kills by stopping the heart, whilst, on the contrary, the principal cause of death in fatal chloroform cases is the sudden cessation of the heart's action.

Now, is not this too bad? I write a letter in which it is manifest that I take for granted that chloroform kills by depressing the heart's action, and show how this can be remedied, and then am addressed in the *du haut en bas* fashion of "May I point out," &c. I may say further that when I first began giving chloroform, now some twenty-four years ago, I unconsciously came to the conclusion that the heart is the organ on which it tells first, for I found myself always keeping one hand on the pulse whilst giving chloroform with the other, long before I had formulated the opinion in so many words. Next, he acknowledges that dangerous symptoms occasionally arise during the administration of ether; but when these do occur the respiratory organs are affected, and there is plenty of time for the proper application of remedies, these symptoms being rarely followed by death. Surely this is begging the whole question, to elucidate which my letter was written. Are these symptoms rarely followed by death? Let us see. Mr. Braine asks me to consult the statistics of fatal cases, in which I shall find that the proportion of deaths under the administration of chloroform is about 1 in 4500, whilst that under ether is only 1 in 20,000! Where are these statistics? I challenge them at once as false and absurd. I have seen, I believe, at least 10,000 cases of choloform administration with only one death, and that was a woman who, as we found afterwards, had been drinking heavily for a fortnight. But I have got some statistics, compiled for the Registrar-General, who has kindly furnished me with them. I asked for a return of the deaths from the various anæsthetics for the past ten years, but was informed that they could not be given separately; however, a return of the deaths from chloroform and ether (1874-83), in which probably are included those from other anæsthetics in England and Wales, was sent.

Before giving this, let us consider how stand matters bearing on these statistics. First of all, population has increased, but not in so great a degree as to affect materially the comparatively small number of deaths from these drugs. Secondly, there are many operations done now, or done in greater number than were done formerly; but, on the other hand, there are many operations done now without anæsthesia which formerly were done nearly always with it—such as for cataract, &c. I speak of the days before the introduction of cocaine, and without any reference to it whatever. Thirdly, I believe that there is more care bestowed upon the administration of anæsthetics than formerly; and, fourthly, if what the advocates of ether say is true, there is much greater safety in this drug.

From the first three of these considerations we may fairly draw the conclusion that we ought to expect only a slight increase of deaths owing to the increase of population, the other causes balancing each other, but when we add the fourth, we ought to find a great decrease indeed. Mr. Braine says ether is 4444 times as safe as chloroform! Now what are the facts? In 1882, when ether was much used, the deaths of men from chloroform and ether were more than twice as great as in 1874, when ether was scarcely used at all. In women in 1882 there were exactly 75 per cent. more deaths than in 1874. In the second half of the decade, in both sexes, the numbers are 150, as against 104 in the first half.

Ought not these facts to make us pause before we assums that there is the much vaunted safety in ether? Is it not the fact that all anæsthetics universally used are equally fatal, for you cannot abolish all the outward manifestations of life, save those of respiration and circulation, without coming perilously near to the extinction of these. By "equally fatal," I mean this: that if one anæsthetic were used exclusively for all cases through a certain period of time, and another anæsthetic were used exclusively for all cases through another like period of time, the rate of mortality would be the same in each.

I am told by a friend on whom I can rely implicitly that in a ten years' connexion with a large hospital there have been two deaths from anæsthetics, of which one was from chloroform and one from ether. I believe that during the past year, in the United Kingdom the deaths from chloroform and ether have been about equal.

So far I have confined myself to Mr. Braine's let-

ter, inasmuch as the "safety" point is the principal one. As to the other letter, as Mr. Buxton agrees with Mr. Braine, I need not enter further into this point, nor need I dilate much on the sequelæ point, as Mr. Buxton agrees with me in considering that the after-effects of ether are far worse than those of choloform. I think few doubt this. When the ether wave came from the West I made an experiment on myself, and in consequence obtained an accurate idea of what I should think must be the prodromata of suicide. Later, when I tried the drug on patients, I found that whilst the symptoms preliminary to complete anæsthesia were no less terrifying than those of chloroform, the symptoms succeeding were far worse and more prolonged. One old gentleman on whom I operated for cataract had a profound melancholy for several months, which he attributed to ether; and I was repeatedly asked by the matron of St. Paul's Eye and Ear Hospital not to give ether, as the patients were so much more sick and ill, and longer in recovery.

Since writing the above I have received from the Registrar-General a return of the deaths from chloroform and ether—practically of chloroform alone—for the ten years 1864-1873. The numbers are: males 106, females 24, total 130. The lowest year was 1866, with four males to one female; the highest year was 1872, with 19 males to 4 females.

The following is the copy of the Report furnished me by the Registrar-General:

ENGLAND AND WALES.

"*Deaths from Chloroform and from Ether registered in England and Wales in each of the years 1874 to 1883.*

Year.	Males.	Females.	Persons.
1874	13	6	19
1875	16	5	21
1876	20	6	26
1877	12	7	19
1878	13	6	19
1879	14	9	23
1880	17	9	26
1881	24	7	31
1882	27	10	37
1883	24	9	33
Total in the 10 years	180	74	254"

—Dr. Walker in *Lancet.*

FALSE DOCTRINES IN THE TREATMENT OF FRACTURES.

A paper on this subject was read by Dr. John B. Roberts, in the course of which he said: The great point in the treatment of fractures is, not the kind of dressing that is used, but simply the keeping of the parts at rest. Very little ensheathing callus is formed if the parts are held in coaptation. This is proved by post-mortem examinations. Where the fracture involves the joint, it is important that careful passive motion be commenced at as early a period as possible. Where the joint is not involved, there is no need of passive motion, and hence should not be commenced sooner than the fifth week. Passive motion should never be made while acute arthritis is in progress. Again, splints are frequently worn too long. In simple fractures of the fibula, one week of confinement is all that is necessary. In compound or otherwise serious fractures, a much longer period is required. Another erroneous view is that which opposes the conversion of simple fractures of the cranium into compound, where the case is obscure and an accurate examination can not otherwise be made. The danger of the wound is rendered little, if at all, more serious, and a definite diagnosis can be made. Another error is in the treatment of fractures of the nasal bones by the application of splints or adhesive strips. The proper method of holding the fragments in apposition is by transfixion with pins. Another error in this connection is the placing of canulæ in the nasal cavities to aid in holding the fragments in position.

The important factor in the treatment of fractures of the clavicle is to apply such a dressing to the sternal end of the bone as shall prevent it from sliding forward, as it would do from the weight of the upper extremity. This is to be accomplished by entending the angle of the scapula, and not by the wearing of an axillary pad, which can not succeed in holding the bone in position, unless the pad be so large as to render its use unadvisable. He also claimed that the use of the angular splint for fractures of the neck of the humerus is an error. In fractures about the middle of the forearm, interosseous pads are seldom required if the fragments are put into accurate apposition, and the arm carried in the prone position.

Another error is the use of the straight splint in fractures of the lower third of the radius. The straight splint will do very well for the external surface of the arm, but not for the internal. In most cases the fracture of metacarpal bones can best be overcome by placing adhesive strips over the part attached to the fingers, and to a splint placed under the hand, and, if desired, projecting a little beyond the ends of the fingers.

Finally, it is an error to rely upon measurements of the lower extremities for the estimate of the result obtained from our treatment of fractures. It is surprising that, although the fact that the extremities differ greatly in length has been repeatedly brought to the attention of the profession, it is an almost universal custom for surgeons to measure their broken limbs. Very often, too, where there is no natural difference, there is an apparent one

from the position of the pelvis when the measurement is taken.

Dr. W. F. Peck, of Iowa, stated that, with reference to fractures of the condyles of the humerus, he had for fifteen years taught the importance of using no splints except for support.

Dr. Mudd, of St. Louis, remarked that the great point to be desired is the limitation of inflammatory action about the seat of fracture. Control that, and you control the amount of anchylosis of the joint. Put the fragments in good apposition, control the effusion into the joint, and prevent movement, and you get a good result. In fractures of the metacarpal bones, put the parts in position, put the pad near the joint, put on a splint, and bandage it firmly.

Dr. E. P. Cook, of Illinois, stated that in fractures of the lower end of the radius, the application of the posterior splint is all that is necessary. One case of this kind he had treated by applying a closely-fitting kid-glove to the hand, and a close bandage over the fracture, with direction to lay the arm on a pillow in any position that was most comfortable. The result was perfect.

Dr. Roberts stated that he had not attempted to bring out anything new, but merely to present some of the more common errors for discussion. He agreed with Dr. Peck, that many fractures would be better treated without any splints than the ordinary splints. In fractures of the upper end of the humerus, it was better, in most instances, to let the arm hang vertically. Sometimes, however, is is best to let the arm fall forward. In many cases we need no splints at all. If we reduce the fracture, the interlocking of the fragments will ordinarily keep the fracture in place. If the fracture is comminuted, however, it should be treated with splints.—*Cin. M d. News.*

OVARIOTOMY IN BERLIN.

BY H. R. BIGELOW, M.D.

Dr. Martin's polyclinic furnishes him with an exceptionally large material, and during five weeks just gone by he has completed considerably over 100 operations. His statistics are creeping up to those of Schroeder, whom he may soon pass, and his results are *extremely* good. With such large experience, with such daily association with grave disease, and with such facility of technique, it is not surprising that success should follow him. He arrives at a diagnosis speedly and almost faultlessly, and operates rapidly and with signal coolness. Dr. Duvelius, himself a surgeon of reputation, is his first assistant, another administers the anæsthetic, while another, in conjunction with an intelligent matron, handles the instruments, sponges, etc. Dr. Martin sits between the knees of his patient, and the two assistants are also seated. The galvanized iron operating table invented by the matron has an arrangement by which its middle third can be dropped, thus facilitating the placing of the dressings. Every one looks comfortable, and I am quite impressed with the advantages of this plan. The first assistant sits at the left of the patient, manipulates the abdominal parietes, keeps the intestines out of the cavity, covering them with a hot towel, and secures all bleeding points. The operations in abdominal surgery are all made in a special room, devoted exclusively to this class of work. It is literally saturated with carbolic spray. All the water used is boiled, and everything and everybody are made as aseptic as possible. The hair of the patient is shaved from the pubes, the abdomen is washed with brown soap and water, then with bichloride solution and then with lemon juice. The temperature of the room is kept well up, but even a higher grade, I think, might be advantageous. The tumor being removed and the stump being sewn up, the left hand is passed into the cavity behind the stump to the posterior cul-de-sac, the right hand then pushes a long pair of forceps through and into the vagina, an ordinary rubber drainage tube is then pulled through into the peritoneal cavity and left *in situ.* The other end drains into *the vagina.* Not altogether a safe proceeding, it seems to me, but where the results are so good it is hypercriticism to find fault.

His operations for total extirpation are done in another room.

The merit of Martin's procedure is that there ought to be very little blood lost and that the bleeding points can be easily made out and secured.

After making the first or posterior incision the vaginal wall and peritoneum must be firmly united by at least four sutures, and the incision should not be continued until all the bleeding has ceased, then it can be carried around, sutures being made as one advances. The only really difficult part of the operation is in getting hold of the lig. lata and passing the thread. If the uterus should be friable, or if the posterior adhesions are intimate and extensive, there will always be trouble.

Of Dr. Gusserow's and Dr. Landau's practices I have already written so fully (letters in the *Journal of the American Medical Association*) that in attempting anything further I should only be recapitulating. They represent the more conservative element of gynecology, a branch that is rapidly assuming large proportions and which has built up a well earned position among those whose clientèle numbers the rich and affluent. I do not know how largely they make use of the many adjuvants which characterize such fashionable practice at home, and whose use is very generally attended with such marked inprovement in symptoms, but I do know that they are not so prone to amputate cervices as many others, and that they believe much

in persistent, patient watching, judicious local applications and strict hygienic detail. I have seen both of these gentlemen do many abdominal sections. I have been present at eight ovariotomies by Landau, in all of which I had the honor of assisting; all of which did well, although some of the cases were attended with marked difficulties, the adhesions being general and the pedicle broad and juicy. At Dr. Gusserow's I have also seen a number of laparotomies and a quantity of plastic work, the results of which I do not know exactly, but in a general way I may say they were good. Dr. Gusserow's strong points are diagnosis and pathology in gynecology, and very general excellence as an obstetrician. His lectures on differential diagnosis and on the evolution of tumors are models.

Why should I speak of Prof. Schroeder, whose reputation is as wide-spread at home as it is in Europe. As a didactic lecturer he stands without a rival. He enunciates clearly and impresses his own individuality upon everything he says. To unrivalled excellence as an operator he adds the quality, somewhat rare, of a splendid teacher. He operates sitting on the *left* side of his patient, and is assisted by Dr. Hofmeier. Just as at Martin's so here, everything is done under the fullest antiseptic precautions.

Neither Schroeder, Martin, Landau or Gusserow use a *trocar*, but the contents of cysts are allowed to pour over the rubber sheet covering the patient and drip into a tub placed at the foot of the table. Neither are any especial precautions taken against reduction of temperature, save that at Prof. Gusserow's hot towels are placed on one side of the patient. I do not know that it makes any difference to the patient whether the trocar is used or not, but the operation looks better and is more cleanly when it is used. But I do maintain that it is good practice to supplement the heat of the body with hot bottles, and to expose only so much of the trunk as is *absolutely* necessary. Of the value of *strict* antisepsis there is no question in Berlin, and to it, in addition to the dexterity of the operators must be attributed the good results that obtain here. An analysis of the world's statistics, if such could be made, would show a percentage vastly in favor of such usage, for even the limited analysis that I have been able to draw when writing my papers on "American Ovariotomies," and later on "Laparotomy" (*American Jour. of Obstetrics*) have convinced me that the operator who neglects to make use of every precaution in an abdominal section commits a serious mistake. In these days of advanced pathology, when our knowledge of wound repair has altered and advanced, with similar changes in our conception of a *contagium vivum*, we cannot afford to sneer, whatever individual good luck we may have had without such precaution. I think no intelligent surgeon will for a moment claim, that mere soap and water will cleanse the hand from the low order of parasitic origin which may cling to it from handling an infected part of the body, from removing stitches from a suppurating wound, or from making an examination of diseased cervix. Experiment has proven conclusively that soap and water will not do this. Knowing this, has any man the right to risk a human life to his super-sensitive prejudices. Much less is it in good taste to belabor with bitter invective those who are more cautious, and perhaps a grain more advanced in scientific research. Take away antiseptic surgery, and see what the results would be. I do not believe that gynecologists here realize the advanced position of their specialty in America, and in how many things they could be instructed in our leading Polyclinics. Apart from Emmet and Goodell they know little of our good men, and of the splendid work they are doing. For this reason I rejoice that an opportunity, in the meeting of the International Congress, will be given them of "liberalizing" their ideas. The amount of material in Germany, especially here in Berlin is simply enormous, and of course the opportunities of examination and of making diagnosis are superb, far ahead of anything of the kind, even in our largest Polyclinics. So to, *ex necessitate rei*, the opportunities of personally acquainting one's self with abdominal surgery are many, as such operations are being done constantly. In obstetrical, practical work too, with such enormous material, there must be advantages for superintending and managing a great variety of cases of labor, which the student at home cannot have. In Pathology and Diagnosis the Germans are admirable. But in minor Surgical Gynecology, in Conservative Gynecology (embracing Rest, Treatment, Massage, Electricity, and the use of new remedies for limiting pain) in surgical appliance and surgical neatness, and the treatment of misplaced uteri, the gynecologist here can learn much from us. I have seen case after case here, operated upon or burdened with a pessary. I have seen numberless cervices cut off, and uteri injected, where it seemed to me, the primary thing to do was to rest the nerve pain, to ease the cry of an overtaxed system that was wearing itself out, and to build the system up after the plan of Weir Mitchell and Goodell, before attempting any local interference whatever. This treatment may not be as showy, but it is more effective and infinitely more logical. I cannot reconcile myself to such wholesale slaughter of cervices, or to such constant local interference without any regard whatever to the more pronounced bodily necessities, and I wish with all my heart, that Goodell's lecture "The Nerve Counterfeits of Uterine Diseases" (*Medical News*, December 6, 1884) could be read by every specialist here. It stands out as a novel of elegant English, and of deep insight into the real cause of half of the

suffering met with. This field is as wide, yes wider than that of operative surgery, for it covers a larger number of cases, and it is just here that the Americans are peculiarly strong. Emmet's last edition is very highly spoken of and rightly so, for it is unique in its honesty and thoroughness. Nothing can exceed the kindness of Prof. Gusserow and of his assistants towards medical men from abroad, and his clinic is a most popular one To him, and to Dr. Wyder, his first assistant, as well as to Drs. Landau, and Martin I am under the greatest obligations. Prof. Schroeder was also most courteous in inviting me to his operations. and I am very appreciative of his kindness, —*Obstetric Gazette.*

RENAL CALCULUS; NEPHRO-LITHOTOMY; CURE.

UNDER THE CARE OF MR. BERKELEY HILL.

E. R——, a woman aged forty, was admitted to the hospital on Oct. 28th, 1884. She stated that about three months previously she began to suffer from a gnawing pain in her right loin, which shot down to her right groin and knee; the pain came on suddenly, and was attended by vomiting. About a week later her urine was thick and red, but not, she thinks, due to blood. She passed urine frequently during both day and night; she never noticed any blood in it.

On admission the patient had occasional attacks of pain in her right groin and thigh; she had some tenderness in the right loin, but it was doubtful if any fulness was present there. Her urine was acid, had a specific gravity of 1080, and contained an abundant deposit of pus. She remained only three days at the hospital at that time, but she was re-admitted four months later, and then stated that during the interval the attacks of pain had been more severe. Her urine was acid; it had a specific gravity of 1010, and contained a large quantity of pus, and on one occasion was dark-brown from mixture with blood. There was a slight fulness in the right loin, and during deep inspiration the kidney could be felt, and it was rather tender. From the persistence of the symptoms and absence of others connected with the bladder, Mr. Hill concluded that there was a calculus in the right kidney; and on March 11th, 1885, he exposed the kidney in the loin and punctured it in several places with a needle, but he did not strike a calculus. He next explored the surface of the kidney thoroughly with his finger and detected a hard substance at the lower part of the organ near the hilus; towards this point, guided by the position of the tip of his finger, he passed a knife through the kidney and struck the calculus. Finding it closely embedded in thick layers of fibrous tissue, he then enlarged the incision in the hilus of the kidney, and after freeing the calculus with a scoop, he extracted it with his finger. The wound was closed, except at the posterior part, where the drainage-tube was placed; carbolic gauze dressings were applied During the first forty-eight hours after the operation the watery fluid, probably serous, not urinous, which drained from the wound was too great for the antiseptic dressings to retain. Notwithstanding this, the wound remained aseptic all through. About eight hours after the operation the patient passed about three ounces and a half of urine per urethram; it contained pus. Nine hours later she passed an ounce and three-quarters of urine, which contained much less pus. During the first twenty-four hours after the operation the total amount of urine passed was only twelve ounces, which contained thirty-nine grains of urea; during the next twenty-four hours twenty-seven ounces of urine, containing 106 grains of urea, were passed. The quantity of urine excreted increased day by day, until it reached forty-nine ounces, containing 364 grains of urea, during the sixth period of twenty-four hours. On the fourth day after the operation the pus entirely disappeared from the urine and remained absent for about six weeks, and then returned in slight amount. The patient had no return of the lumbar pain. She was discharged seven weeks after the operation; there was then a little pus in the urine, and the wound in the loin was almost healed. The calculus weighed 142 grains; it had an irregularly conical shape, and measured an inch across its base and along the two longest sides; the apex of the cone was smoothed off, and was represented by a flat facet, which seemed to indicate that it lay in the kidney against another calculus, but although this was carefully searched for at the time of the operation, it could not be detected. The patient was seen again on May 15th, when she was in generally good health. She said that she had felt pain in her right loin during that day for the first time; the wound had healed, and there was no fulness or tenderness there; her urine was turbid with flocculent pus.

Remarks by Mr. BERKELEY HILL.—The above case of nephro-lithotomy was very successful, though disappointing. It was successful in that a correct diagnosis of a renal calculus could be made on the presence of three symptoms—persistent pain in the loin, shooting thence towards the groin, the presence of pus in acid urine, and occasional slight hæmaturia at the onset of the case; successful also in that the calculus was found and removed without difficulty through an incision into a healthy kidney from the loin, with the effect of removing the symptoms from which the patient suffered. But the case is also disappointing in that after the urine had been free from pus for six weeks, and the pain in the loin relieved, there should be a return of the purulent discharge. It is difficult to explain this relapse,

unless we conclude that there is still another calculus in the kidney, and this view is somewhat supported by the existence of a flattened surface on the irregularly shaped calculus which was removed. This flattened surface was observed at the time of the operation, and I searched very carefully for another calculus, but failed to detect one, and attributed the surface to the stone having been moulded in a calyx which fitted it closely. It is possible that so long as the wound in the loin remained open the pus discharged itself through that channel, and that when the wound closed the pus was obliged to find a vent along the ureter. Meanwhile the patient is enjoying a state of health and complete freedom from pain which she has not had for some years past.—*Lancet.*

THE ADVISABILITY OF PERFORMING DOUBLE OVARIOTOMY WHEN THE DISEASE OF BUT ONE GLAND IS BUT LITTLE DEVELOPED.

In performing the operation of ovariotomy, it happens in a certain number of cases that whilst cystic disease is so well pronounced in one ovary the other organ presents only a pathological state in its early development. When this latter condition is observed, a question must arise in the mind of the operator whether both ovaries shall be removed at one operation or whether the one least disturbed by pathological processes shall be left for a subsequent operation. The mortality from a double ovariotomy is undoubtedly larger than where a single ovary is removed, as has been shown by the statistics of Sir Spencer Wells and Kœberle. The fact that the patient is rendered sterile by the removal of both ovaries is also a point to be considered. The many sides to these questions have been discussed and a partial settlement seems to have been reached in favor of delay in removing the second ovary unless cystic disease is so pronounced in both ovaries as to make their removal a matter of urgent necessity.

Quite recently some statistics have been offered which seem entitled to consideration. In a paper entitled "Two Ovariotomies in the Same Patient" (*Med. News*, August 1, 1885,) the author, Dr. Ransohoff, of Cincinnati, discusses the question which gives the title to this article. Dr. Ransohoff disputes the statement made by Scanzoni that in fifty per cent. of cases both ovaries are affected. "In 366 operations for the removal of ovarian growths witnessed by Doran, the tumor involved both ovaries in 48, and in 20 other cases, 'suspiciously enlarged' ovaries were removed after the tumor had been cut away. Thus, in 18 per cent. of his cases both ovaries were affected. In 132 ovariotomies, Goodell found it necessary to remove both ovaries in 50 per cent of all cases. In 293, 101, 229, and 56, and 1000 operations made respectively by Kœberle, Tait, Keith, Olshausen and Spencer Wells, double ovariotomy was necessary in 37, 27, 13, 9 and 82. While according to the experience of Wells, both ovaries must be removed in 8 per cent. of all cases; according to that of others, double ovariotomy is indicated in 16 per cent. of all cases."

Dr. Ransohoff suggests that an examination of statistics will show that different operators are far from agreed as to what constitutes sufficient disease in the second ovary to call for its removal. It is the determination of this point which makes the decision a matter of practical difficulty at the time of operation. It is here that a strong judgment and an intelligent view of the conditions observed in the case will come to the material aid of the operator. The youth and conjugal relations of the patient present questions involving the propriety of removing both ovaries at one operation. Dr. Ransohoff's suggestion, "unless the less diseased gland be the seat of quite marked multilocular cystic degeneration, it would probably be better in many cases to leave it undisturbed or to empty the cysts of their contents," is worthy of practical consideration.

He has an eminent authority in Sir Spencer Wells in advocacy of this plan which he practiced on a girl of 19, from whom he had removed the right ovary. "The left ovary was enlarged to nearly double the normal size. Two follicles, about the size of cherries, were distended by clot. These I laid open, turning out their contents. It seemed hard to unsex a girl of 19, and if the disease should progress, a second ovariotomy could still be done. This operation was performed in November, 1864. After her marriage the patient gave birth to four children, and when last heard from, in 1881, she continued in good health."

In 32 cases, collected by Dr. Ransohoff, in which the operation was twice performed on the same patient, children were borne by five of these cases. The aggregate number of children borne between the two operations was fourteen.

Another important factor in favor of conservatism in dealing with a slightly diseased second ovary is the small mortality attending second ovariotomies. This mortality is estimated at about 12 per cent Wells' experience shows a mortality of 34 per cent., whereas 51 per cent. in the cases reported by Kœberle have died Dr. Ransohoff is very pronounced in favor of removing each ovary by a separate operation when the pathological condition of the ovary will admit of its retention. He concludes that double ovariotomy should be refrained from except in women approaching the climacteric, and unless the disease in the second ovary be quite pronounced.—*Maryland Med. Journal.*

RAYNAUD'S DISEASE.—At a recent meeting of the Clinical Society of London (*Medical Times*, May 30, 1885), Dr. Colcott Fox exhibited two adults affected with this disorder, and read notes of the cases. A woman, aged forty-one, of extremely nervous temperament, dated the commencement of the disorder from ten years back, but though this was the period when her attention was attracted by pain, it is probable that she suffered from slight attacks for some years previously. In the earlier stages all her fingers continually went "like white wax." This condition of recurrent local syncope gradually gave place to local asphyxia, and the feet became involved. The fingers gradually lapsed into a state of chronic asphyxia, which intensified by frequent attacks of more severity, often leading to "blood-blisters and ulceration." The nutrition of the phalanges has suffered greatly, so that her hands are crippled, the fingers are fusiform in shape, livid, shiny, and withered, the nails variously distorted, and the end phalanges much atrophied and almost immovable. The nose and ears are effected to some extent on exposure. Cold and nerve shocks are ready exciting influences. The second case, that of a man, aged fifty-one was of considerable interest from the fact that, like one of Raynaud's cases, he suffered from diabetes. His hands were not deformed, but he had suffered for several years from "dead fingers." He sought Dr. Fox's advice for symmetrical gangrenous patches on the skin, which recurred, and later for an attack of asphyxia of one great toe and lower third of the inner side of the leg, and then it was found that he had been attacked in a similar manner, though more severely, in the other toe, and on another occasion blood blisters had formed beneath the ends of his toes. Dr. Fox concluded his paper by giving a reference to some cases which have been recorded as scleroderma of the extremities. A woman with the latter disease was shown to illustrate the difference between it and Raynaud's symmetrical gangrene of the extremities.

In the discussion which ensued, Dr. Barlow reminded the Society of three cases which he had brought before it in a previous session. From subsequent observation of these cases he had been led to some conclusions with respect to treatment, and especially by means of the continuous current. In one case, that of a man aged forty-two, in whom repeated attacks of the disease had caused almost complete inability to walk, he had employed the continuous current with very satisfactory results, a gradual improvement in the circulation having taken place during the eight months during which the treatment was applied, and remaining permanent after its discontinuance. He had found that the most satisfactory method of using it had been by the application of both poles of the battery to the affected part and by painting the surface with one of them. In two other cases he had employed the constant current by means of baths during the attacks of extreme pain, and had succeeded in cutting short the seizure at once. He had used nitrite of ampl, on the strength of Raynaud's opinion that the disease was due to spasmodic contraction of vessels, and, although the general physiological effects had been produced, there had been no relief afforded. He should recommend the use of the constant current persevered with for several weeks, and followed by frequent shampooing. He believed that its action was simply that of a local stimulus.

REMOVAL OF TONSILS.—Dr. De Saint-Germain gave some very practical remarks on this common operation that we are so often called upon to perform in the winter season. He said, "You noticed that I just refused, notwithstanding the entreaties of the parents, to perform the operation of extirpation of the tonsils in this child, although I performed it in two others. The fact is that this simple operation is not without danger in certain cases. How shall we know when not to operate? Well, there is a rule that you should never forget: it is never to cut the tonsils until they touch each other in the median line. It has been said that a child that has enlarged tonsils is subject to phthisis or to get diphtheria, but it is not true; large tonsils don't exercise such an influence over the general health. There are cases when you should refuse to operate. When you see the mucous membrane inflamed, and you see white spots, don't operate; wait, and under treatment it will regain its usual rosy color. Ought the tonsils to be cut at all ages? No. If the child is under two, wait, for fear that a loss of blood, however slight, may weaken the patient. From four years of age up to twelve is the period for operating. At twelve, if it is a girl, wait, for very often at this period or later menstruation may come on, and it will modify the condition so that no operation will be needed. From seventeen to nineteen, and in adults, hemorrhage may be feared. Here always remain at least an hour with them after the operation. As a last counsel, don't operate at all when there is an epidemic of diphtheria. Having decided to operate, what are the means used to perform the operation? All of you know the amygdalotome, so I won't describe it. I wish to say that I think it will pare or scrape the tonsil, but it will not extirpate it, so that some other doctor has often to be called in to complete the operation that you have left unfinished. It is, besides, an instrument that is difficult to keep clean, and I have seen the knife-edge break off and fall into the pharynx, so that I do not use this instrument at all. I use concave bistouries. The convex side is put against the adherent portion of the tonsil, and the concave side is towards the base of the tongue. Right and left instruments are

used. With these instruments you can pluck the gland out of its socket completely, but you need a special pair of forceps. These are long pincers, made so that they will not tear the substance, with triangular teeth that are flat, with a sort of gutter between, exactly like a small waffle iron, from which you have so often enjoyed eating the cakes. Place the pincers horizontally, and the child will instinctively open its mouth wide, so that nothing remains but to cut the tonsil."—*Med. Times.*

INDUCTION OF PREMATURE LABOUR.—Dr. T. Gaillard Thomas, of New York, writes as follows regarding the induction of premature labor (*Med. and Surg. Rep.*, Feb. 14, 1885): The method of inducing premature labor which I now invariably adopt is very simple, and, at the same time, a perfectly efficient one. The patient is placed across the bed, with the buttocks resting near the edge, and under her is arranged a large piece of rubber or oil-cloth in such a way as to drain into a tub below on the floor. In this tub we put one or two gallons of water at a temperature of 98 F. The operator stands between the thighs of the patient, whose knees should be properly supported, and employing a syringe with a long nozzle, which is carried up as far into the cervical canal as it will go, he keeps a steady stream directed against the membranes. In the course of ten minutes the os will be the size of a silver half dollar, and when dilatation to this extent has been accomplished, he is to insert a gum catheter between the membranes and the uterine walls. The patient is then put in bed, and that is all.

This operation constitutes one of the greatest advances that have ever been made in the obstetric art, and it is certainly no mean triumph to be able thus to preserve a human life which, without its aid, would have been inevitably lost. I can point to at least two dozen children in this city who by this means were saved from an untimely fate. When the infant has been delivered before full term, it should not be washed and otherwise treated in the ordinary manner of nurses, but should be carefully wrapped in warm cotton and allowed to remain in it, the temperature of the room in the meanwhile being brought up to nearly one hundred degrees.

[This mode of dilatation should be found useful in rigid os at full term. Its application may be found greatly to alleviate the first stage, especially in primipara.)—ED. LANCET.

THE ELASTIC BANDAGE IN STRANGULATED HERNIA.—The elastic bandage is so decided an improvement on the oldfashioned truss, and is so simple a contrivance in itself, that it is a matter of surprise that its palpable advantages should not have been recognized sooner. Though preferable to the truss in every form of hernia, it is especially in the strangulated form that the bandage renders priceless service. Jakolew regards the application of the elastic bandage—next to an operation—as the most effective method of eliminating an incarcerated hernia, and speaks with confidence of its usefulness, even after the failures of taxis (*Centralblatt für Chirurgie*, No. 11, 1885). According to this author there are various modes of origin of an incarcerated hernia, as can be seen in herniotomy or in an autopsy. Each origin, as far as it can be ascertained, will, of course, call for a special form of taxis, but the bandage will be equally useful in all cases. The permanent, mild and uniform pressure of the bandage on the intestinal loop mostly results in either pushing the intestinal contents backward into the afferent or onward into the efferent portion of the loop, removing the strangulation in either case. Experiments on the cadaver have amply proven these results. The danger of gangrene is to be cautiously guarded against; persistent, violent, or even considerable pain is sufficient cause to discontinue the bandage. If, after the use of this bandage for ten to twelve hours, no symptoms of improvement appear, the usefulness of this treatment must be acknowledged, and no other means resorted to. Jakolew reports the successful employment of the bandage in five cases out of six, though some cases grave symptoms and failure of taxis had preceded.—*Therapeutic Gazette.*

PALLIATIVE TREATMENT OF CANCER OF THE UTERUS.—Dr. J. E. Burton thinks we are too apt to be discouraged when treating this disease, and to do nothing when the disease is in an advanced stage. Four measures can always be taken with more or less success:

1. We can attempt to bring about a more healthy action in the parts.

2. We can relieve pain.

3. We can moderate discharges, especially those of blood.

4. We can remove the fetor of the discharges.

He suggests that the progress of a neoplasm can be checked, at least for a time, by exciting an inflammation which shall affect its immediate surroundings. Such a cordon of inflammation might be excited by the action of iodine or iodized phenol. He quotes Duploney for considering that concentrated acetic acid is the most satisfactory for such a purpose. Gallard is much in favor of the actual cautery, which he thinks might be used freely as often as once in three weeks. Of other caustic agents, nitric acid, acid nitrate of mercury, bromine, sulphuric acid, bichromate of potassium, and resorcin have been used by the author, and are all of benefit in certain cases. Before caustics are applied to an exuberantly granulating surface, the granula-

tions should be scraped away as thoroughly as possible.

For the relief of pain nothing better than opium, in some form, by the rectum, can be given. To diminish the vaginal discharge any reliable astringent injection may be given. Subcutaneous injections of ergotin will have a good effect in controlling hemorrhage.

The fetor, which is so offensive, can be controlled by vaginal suppositories of iodoform used night and morning. The author has also found that Chian turpentine lessens the quantity of the discharges and the tendency to hemorrhage—hence it is not valueless. He thinks a spare diet is to be preferred when it is possible.—*British Med. Jour.*, June.

EARLY DIAGNOSIS OF TYPHOID FEVER. — Dr. Hardy calls attention to the following symptoms which he regards as in a certain sense characteristic of typhoid fever in the earliest stages (*L'Union medicale*, No. 6, 1885): There is cephalalgia, most often frontal, but sometimes occipital, and radiating into the neck, which may be somewhat stiff. The patient lies habitually on the back, and seldom moves. The face is somewhat pale, the countenance without expression, in general serious and grave, and a smile is seldom provoked. When the person is addressed directly he answers briefly and in monosyllables, although the intelligence is at this period usually unimpaired. There may be a little delirium at night, and insomnia is very constant. The tongue is red at the edges and at the tip, but whitish on the dorsal surface The spleen is increased in volume Diarrhœa, when present, is accompanied with iliac gurgling. The temperature is elevated, but the pulse is not very frequent, is full and resisting, and sometimes dichrotic, though this is of less common occurrence than is generally supposed. The urine is usually diminished in quantity. The so-called *tache cerebrale* is readily produced; but of more importance, as more especially diagnostic of typhoid fever, is the *corde musculaire*. If the biceps muscle be pinched between the thumb and index-finger and snapped, like a guitar string, a circumscribed contraction will occur at that point, with the formation of a hard, tense swelling, which disappears after a brief period. If the patient, in whom no well-defined local trouble can be discovered, presents all the above-described symptoms, the diagnosis of typhoid fever can, Dr. Hardy claims, be made with almost absolute certainty.—*N. Y. Med. Record*, June 20th, *Analectic.*

NURSING SORE MOUTH.—In all cases of nursing sore mouth, there may be found, upon careful inquiry, wrong of the uterus. There is nearly always more or less leucorrhœa, and the discharge is frequently of an offensive, irritating character. The internal administration of eupatorium, alternated or combined with hydrastis, will always help in such cases, and they will many times accomplish every thing desired.

℞ Mother tincture eupatorium aromaticum . . . . . ʒ ij.
Fluid hydrastis. . . . . ʒ ij.
Water . . . . . ʒ iiiss. M.

SIG.—One teaspoonful every hour.

It is surprising to see how rapidly some cases of nursing sore mouth heal under the influence of this simple prescription. The burning mouth and tongue are cooled; the leucorrhœal discharge is modified, lessened, and not infrequently entirely stopped; and the nervous element of the disease, characterized by morbid watchfulness, throbbing headache, etc., is perfectly controlled in most cases. Eupatorium is said to be a remedy for nervousness, but we have never observed that its virtues were very marked in this regard except in this terrible disease, so frequently met with in nursing women, but here it certainly is a first-class remedy.—*Amer. Med. Jour.*

AN IMPROVED FRACTURE-BOX.—Dr. S. Bradbury, of Oldtown, Me., sends us a photograph representing the "box and railway" devised by himself for the treatment of compound fracture of the leg. The box is the ordinary fracture-box of every-day use, but the improvement consists in mounting it upon four grooved wheels riding upon two rails. He writes: "I have just removed the apparatus from a patient who had a compound comminuted fracture of the middle and lower third of the left leg, and I believe it the best apparatus for this kind of injury which we possess. The railway is screwed to the cross-bar at the foot of the bed, and rests upon a good hair-mattress. The leg is placed in the box, and imbedded in bran, which is retained in its place by a piece of sheeting laid in the box. The great advantage of the railway is that it prevents the ends of the upper and lower fragments from being crowded together by any movement of the patient during sleep. If the patient moves up or down, the box slides with the leg, and no harm is done. The attendants of the patient above referred to, told me that this would often happen while he was asleep, the trucks riding to and fro over the rails without the least disturbance to the position of the leg in the fracture-box.—*Cin. Med. News.*

ARSENIC IN ANÆMIA AND ATROPHIC CONDITIONS.—In the *Lancet*, 1885, p. 653, Dr. Wilks contributes an article on arsenic as a therapeutic agent. The author states that arsenic has a great influence in curing cutaneous affections of a gouty origin, and therefore it is not surprising that the same remedy has great power in preventing attacks of gout. In the same way, many gouty patients who suffer from neuralgia are cured by means of

arsenic. In some forms of nervous affection, the author has found it quite unique in its action, and he mentions the case of a lady who suffered for years from neuralgia in the eye-ball, which was only relieved during the times she took arsenic. The most remarkable effects of arsenic are seen in the cases of anæmia and various forms of cachexia and atrophy. Many cases of what have been styled "pernicious anæmia" have been cured by five-minim doses of liquor arsenicalis given three times a day, and two cases in which Addison's disease was suspected were completely cured by giving arsenic In cases of wasting and general cachexia its action is most efficacious, where there is no malignant disease nor other organic disease to be detected as the cause of the wasting. To say that the remedy is always successful is more than can be supposed; but, where every other means has failed, it is worth the trial to give this remedy in the form of the liquor arsenicalis in doses of from four to five minims three times a day.—*London Med. Record.*

THE SUMMER DIARRHŒAS OF INFANTS.—The *Medical Age*, of Detroit, contains, in its issue for July 25th, a valuable article on this subject, by its editor, Dr. J. J. Mulheron. He treats first of the causes of these affections, dividing them into simple diarrhœa, entero-colitis, and cholera infantum, and then speaks of the treatment as follows:

"*Simple Diarrhœa.*—Assist the efforts of nature to rid the bowel of irritant matter with a dose of castor-oil. Follow this by sufficient doses of prepared chalk to correct the acidity of the discharges, give opium to diminish the peristaltic action, and give astringents and strychnine to restore tonicity. The following is a good formula for a child of, say, eighteen months:

Tr. opii camph	℥ ss. ;
Ext. rubus villos. fl	℥ j .
Tr. nucis vomicæ	gtt. xij ;
Mist. cretæ	q. s. ad ℥ iij.

M. Sig. A teaspoonful every three hours.

"*Entero-Colitis.*—When the character of the stools, the elevation of the temperature, the disturbance of the stomach, etc., indicate the involvement of the intestine in a catarrhal inflammation, the means employed in the simple diarrhœa, which is usually the precursor of these graver symptoms, must be supplemented by other remedies. Place the child on small doses of calomel and ipecac—say a twelfth of a grain of each for a child of eighteen months—every two hours, alternated with a teaspoonful of an infusion of five chamomile flowers in a cup of boiling water. The spice poultice, moistened with hot brandy, must be laid over the abdomen. If the temperature pass over 101° F., it must be reduced by baths, the water of which must at first be tepid, and gradually cooled to 70° F., or lower, as the circumstances of the case require. Should twenty-four or thirty-six hours of this treatment be followed by no improvement, and the stools continuing or becoming more colliquative, I have found the following formula to answer admirably, quieting the irritability of both the stomach and the bowels:

Creasoti	gtt. iv. ;
Zinci oxidi	gr. xvj ;
Tr. belladonna	℥ ss. ;
Glycerini	℥ ss. ;
Aquam	q. s. ad ℥ ij.

M. For a child a year old: Sig. A teaspoonful every three hours. This may be alternated with aromatic sulphuric acid, two drops in ten drops of brandy, every three hours. The spice poultice should be continued.

"*Cholera Infantum.*—Bearing in mind our conception of this affection as a neurosis, our treatment should be directed, 'first, to destroying the organisms, on which every fermentation depends for its development; secondly, to allaying the irritation of the end organs of the splanchnics in the mucous membrane; thirdly, to arresting the outward osmosis of the vessels; fourthly, to lowering the febrile temperature and removing the algid condition.' My experience leads me to speak with favor of salicylic acid and chalk, as recommended by Dr. Hutchins in the September, 1880, number of the 'Proceedings of the Medical Society of the County of Kings,' N. Y., as a remedy meeting the first and second of these indications. This combination is useful only in cases of serous diarrhœa, having no efficacy in the inflammatory or lienteric form. It acts happily, also, in allaying gastric irritability. Three grains of salicylic acid, rubbed up with two grains of prepared chalk, should be given every three hours. Care should be taken that the chalk be pure, and that, during the effervescence attending the addition of water to the powder, no odor of chlorine be emitted. Such odor denotes the presence of chlorine—a residuum of the manufacture of chlorinated soda. It is apt to exist in prepared chalk, and should be carefully avoided. The creasote formula, given above, for entero-colitis, has also answered a good purpose, especially in cases attended with much gastric irritability.

"There are few cases of cholera infantum in which the bromide of potassium will not prove helpful, and especially where there exists restlessness, wakefulness, and twitching of the muscles. It allays the irritation of the splanchnics, and of the nervous system generally.

"Baths hold an important place in the treatment of the fever of cholera infantum, and for one reason, among others, that it is of little use to administer medicines as long as the temperature is elevated. The soothing influence of a cold bath

on a child whose temperature has reached, say, 103° F., and the increased activity of the drugs administered after the bath, need but to be witnessed to make converts to this much neglected remedy in the treatment of cholera infantum. The child should be immersed up to its neck in water at a temperature of 95° F., to which cold water should be added until the bath reaches 70°, or even lower, the condition of the patient, his temperature, etc., being the guide to the reductitn. No hard-and-fast rules can be laid down to govern the temperature of the bath or its frequency. The condition of the infant must be the guide, which the good sense of the physician must be trusted to interpret and follow.

"When the child has entered the algid stage of the disease. treatment offers little hope of rescue. Alcoholic stimulants and warm baths are about the best we can apply. Belladonna, through its action on the heart, suggests itself as a remedy in this condition, and experience has shown it to be of value. By paralyzing the terminal inhibitory filaments of the pneumogastric, it gives the heart over to the sympathetic, and we have, as a consequence, increased rapidity of contraction and raised arterial tension—a condition of affairs which it would seem very desirable to secure in the cold stage,"

THE TREATMENT OF HÆMORRHOIDS BY INJECTION.—Under the above title is an article by Dr. Charles B. Kelsey, of New York, in the *American Journal of Medical Sciences* for July. Dr. Kelsey is a strong advocate of the essentially modern method of the treatment of piles by injections of carbolic acid. The acid is of varying strength. He has three solutions constantly ready, one of fifteen, one of thirty-three, and one of fifty per cent. He sometimes uses the strong acid. In a severe case he would begin with the strongest solution ; in a mild case, in one of the weaker solutions. He finds this method to be comparatively painless and uniformly successful.

The famous Western "pile cure" is composed of equal parts of strong carbolic acid and sweet oil, of which half a dozen drops are injected into each pile.

Dr. J. M. Matthews, of Louisville, gives the following rules : (1) Use the acid only in the smallest tumors. (2) Should it be used in a large tumor, inject once only in one portion, and wait several days, and then inject another portion. (3) Use the smallest amount possible in injecting, say one to three drops of the mixture of sweet oil and carbolic acid.

The injection turns the pile white, coagulates the blood in its vessels, and results in its shrinking away without the inflammation being severe enough at any one time to prevent the patient from attending to his business.

BATHS FOR RHEUMATISM.—Turkish baths are now prescribed in New York for those forms of rheumatism resulting in deformity of the joints. The baths are taken twice a week and for half an hour's duration. Several ladies who have passed through the alkaline treatment find that these baths afford them great relief.

The medicine which seems to give the most satisfaction is aqua ammonia, in twenty drop doses, three times a day, in a half tumbler of cold water, the bicarbonates of potassa and soda are objectionable, because they are liable to produce a skin disease resembling herpes.—*Med. Sum.*

TREATMENT OF PSORIASIS.—While on skin-diseases, it may be well to give M. Guibout's treatment of psoriasis. Here we reach the acme of irritant treatment, as the trouble is a sort of mummification of the skin and transformation into a sort of shell, dry and crackling, without a shadow of vitality. The indications are to remove the epidermic scales and try to revive the lost vitality. The external treatment consists in friction and baths. The substances employed by M. Guibout are : the oil of cade extracted by distillation from the *Juniperus Oxycedrus*, and next in order pyrogallic acid. The oil of cade gives the best results. The whole of the body is well rubbed with it twice a day with a piece of cloth or flannel ; then every other day a bath is given with from five hundred to six hundred grammes of subcarbonate of soda in it. If the treatment with pyrogallic acid is preferred, it should be combined with vaseline (ten to fifteen grammes of the acid to one hundred of vaseline), used in friction twice a day, and alkaline baths to follow. The pyrogallic acid turns the skin black when exposed to the air : so it must not be used on the face or neck, at it takes a long while to get rid of the color.—*Med. Times.*

HOMŒOPATHS IN THE BRITISH MEDICAL ASSOCIATION.—In the report of the Council, presented at the recent meeting at Cardiff, and published in the *British Medical Journal* we find this statement: "The Council have had under their consideration the subject of admission and retention of homœopaths as members of the association during the past year. An enquiry has been made throughout the thirty-three branches, and the result has been that there is evidence to the affect that a large majority of the members are adverse to the admission of homœopaths as members, but an equally large proportion are opposed to the idea of the expulsion of those members who have already gained admission into the ranks of the association."

An excellent local application for the relief of neuralgia and gout is prepared by rubbing up together equal parts of thymol, menthol, camphor and chloral.

THE CANADA LANCET.

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Criticism and News.

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MEDDLESOME MIDWIFERY.

Some of our best thinkers have called a halt in midwifery practice. It is felt that at the present rate of advance we shall soon overtake Nature, and relegate her to a back place. Those of us who have some lingering respect for Nature, and some doubt as to the propriety of converting a physiological function into an automatic movement, regulated only by the skill and boldness of the artist, will be glad to know that protests, more or less pronounced, have been entered in several highly respectable quarters. To be just, it is proper to say, that there have always been a "remnant" who refused to be carried away on the antiseptic wave, and whose confidence in the power and completeness of the natural forces remained unshaken. Nevertheless, it must be confessed that the rank and file, no less than many eminent persons, have been borne along on this most captivating and popular wave. But a little longer and woman would have been declared unfit to deliver herself unaided, or if, perchance she did, to survive the process, unless sealed against noxious germs. But every hobby, and every practice, not well grounded, will have but its day, and so now, judging by what we read, all the fancy obstetricians are beating a hasty retreat. The principal danger now seems to lie in the probability of their being carried as far back by the ebb as they were carried forward by the flow. And thus it ever has been with the human mind, not only in the domain of medicine, but in all fields difficult or impossible to define with mathematical precision. The theorist and experimentalist is essential to progress, no less in obstetrics than in other departments; but we would all prefer that somebody else's wife or sister should be the subject of all doubtful practices. In the short cycle of our lives many queer things happen us. It now turns out, according to the evidence,, that it is quite possible to complete the process of parturition by natural forces alone. Nay, more; that the chances of woman's survival are greatly enhanced by a policy of non-interference.

In the Maternity Hospital, N. Y., out of 570 deliveries the death rate was 2.67 %. A few years afterwards, under "reform," the death rate rose to 6.67 %. Thus in 1881, out of 202 selected cases, 12 died. Of 423 cases, occurring from April, 1881, to April, 1882, but 2 deaths took place from puerperal fever, and the whole mortality was greatly reduced. These last cases were all strictly treated on the non-interference plan. Previous to the adoption of "reform," the death rate was not above the minimum in the N. Y. State Hospital for immigrants. A year since, a so-called "reform" was instituted there; the prophylactic injections and complicated manipulations were introduced, and with the direct and immediate effect of increasing the mortality rate, which became alarmingly high. At the same time, "there were on Ward's Island a large number of Russian Jewish refugees, who were filthy and despondent. Upwards of 90 of these women were delivered without a death. There were numerous forceps deliveries, but there was absolute non-interference in the after-treatment." From other quarters also comes evidence of a similar character. These figures are not probably free from inaccuracies. A mental bias is capable of presenting misleading statistics, even though the intention be honest. One thing, however, can be said in their support, namely, that for the long ages antecedent to fancy widwifery, woman was able to bring forth her young, and, to a remarkable degree, fulfil the Scriptural injunction laid upon her, to "multiply and replenish the earth."

But we would here file a caveat. We would not intentionally discredit the great work accomplished for the relief of woman in the hour of her distress

and peril, nor say anything to dim the halo of glory which crowns the host of brilliant and self-denying workers, whose names are found in this field of labor. We fully recognize the fact that nature may be assisted by art in the physiological act of parturition, and that, even in normal cases, a judicious use of known means, may, sometimes, be resorted to with advantage for the relief of pain and shortening the duration of labor. Having admitted this much, we may very properly be asked, whether there be, after all, such a thing as "meddlesome midwifery." No doubt of it. It is of two kinds, and may be classed as scientific and unscientific. The representative of the latter class, fully conscious of his lack of skill, but desirous of earning his fee and making a show, at once removes his boots, and takes up a position on the bed or couch, where he holds the fort until the agony is over. With each pain his digit finds its way into the vagina, now correcting this, and again that, and with groans and grimaces tugs away, until at last by his herculean efforts delivery is accomplished. But his work is not yet completed. "The after-birth is grown fast to the side and must be removed." A few pulls at the cord, or a rude introduction of the hand, and this is accomplished. Nothing now remains but to pompously claim credit for conducting "a bad case" to a successful and happy issue, and to retire covered with glory. This is no overdrawn picture, but a true representation of what is enacted in many cases every day, even in Canada, where the profession is fully up to the average, both as regards character and skill. Were this serio-comic performance a mere sham, devoid of positive harm to the patient, however degrading to the performer, it might be dismissed in few words. But such is not the case. Constant manipulation of the soft parts causes a dryness, and irritation painful to endure, to say nothing of the increased danger of introducing septic matter. Nor is this all. One of the tricks of these meddlers is the introduction of the finger within the os, at each pain, for the purpose of dilatation. The cervix is probably more frequently lacerated from this cause than the passage of the child. Such meddlesomeness is harmful, exceedingly indelicate, and in all respects most reprehensible.

In considering the question of undue interference on the part of the sciened and skilled obstetricians, anæsthetics and the forceps naturally suggest themselves first. The administration of chloroform and ether has been quite fashionable for a long time, especially in American cities, not in operations merely, but to allay the ordinary pain of labor. When we consider the continued depressing effects of these drugs, given in so simple a case as the extraction of a tooth, it surely cannot be regarded as a light thing to bring the parturient woman under their influence, not merely for a few minutes, but for hours together, it may be. The exhaustion caused by ordinary labor is soon recovered from, but not so the depression induced by chloroform or ether, which sometimes continues for days, marked principally by impairment of the digestive organs. The state of general muscular relaxation induced by anæsthetics predisposes to hæmorrhage, which is another strong objection to their uncalled-for use. Some authorities to the contrary, there can be no doubt that anæsthetics prolong labor. It would be easy to give both reasons and illustrations in support of that statement. It has often been said, that the forceps, as a rule, are not used early enough. This is no doubt true, but it is also true, that they are used too early, and when uncalled for, which, perhaps, is a still greater evil. Much depends, too, on whose hands hold them, for however learned we may all be, we are not all skilled workmen, capable of handling deftly any tool placed in our hands.

The use of antiseptics in ordinary cases, and under ordinary circumstances, is, to say the least, uncalled for. Both vaginal and intra-uterine injections are useful in their place and ought not to be omitted when required. It does not by any means follow that every parturient woman must be antiseptically treated. The post-partum conditions being natural, or physiological, any interference is more likely to interrupt than accelerate the restorative process. Of course, when there is reason to fear danger, owing to the severity of the labor, the use of instruments or exposure to contagion, it would be fanaticism to decline the use of antiseptic injections. But no prophylactic treatment can ever supersede general good management, cleanliness being always accorded the first place. Antiseptics may come and go, and all kinds of new-fangled theories and practices, but that obstetrician who has most faith in Nature, and who makes patience, discrimination, cleanliness and moderate conservatism his guiding star, will be able to show a record second to none.

VALUE OF SANITARY WORK.

The inestimable value of sanitary work in the maintenance of public health cannot be too frequently brought under the notice and attention of the profession and the public. Dr. Baker, the indefatigable secretary of the Michigan State Board of Health, has recently issued a circular setting forth the good results to health from sanitary work to which we desire to give special prominence. He says : Sanitary authorities have claimed that the work which they have recommended to be done as a preparation for cholera—such as preventing and abating nuisances ; attending to drains, sewers, privies, and cesspools ; cleaning up generally, and unusual carefulness in regard to foods and drinks —would reduce the sickness and deaths from other diseases, even if cholera did not come. The weekly reports for July, 1885, to the Michigan State Board of Health, by physicians in different parts of the State, indicate that this claim is being realized in Michigan, so far as relates to the lessened sickness —it having been lessened from nearly every disease, and greatly lessened from fevers and from diarrhœal and other diseases believed to be especially influenced by sanitary conditions ; and this is true notwithstanding the fact that the meteorological conditions in that month were rather more than usually unfavorable to health. It is proper to state, however, that the sickness in any month is influenced by the meteorological conditions in the preceding month, and that the meteorological conditions in June, 1885, were favorable to health.

Observations in Michigan for many years have shown that in July the meteorological conditions especially unfavorable to health are : high temperature, excessive humidity of the atmosphere, and deficiency of ozone. The bulletin of "Health in Michigan, July, 1885, says : "For the month of July, 1885, compared with the average of corresponding months for the seven years, 1879-1885, the temperature was slightly higher, the absolute and the relative humidity were more, and the day and the night ozone were less." Compared with the average for the months of July in the seven years, 1879-1885, remittent fever, intermittent fever, dysentery, consumption of lungs, cholera infantum, diarrhœa, cholera morbus, measles, and whooping-cough were less prevalent in July, 1885." A large part of this decrease in sickness has undoubtedly been due to the medical and sanitary journals and the newspapers, which have constantly kept before the people the necessity for sanitary work, and the facts as to the spread of cholera in Europe.

It remains to be seen to what extent efforts for the exclusion of cholera from this country, and the general preparation for cholera by boards of health and the people, shall prove effectual ; but even if cholera shall not be entirely prevented, there will remain the belief that the measures which have so greatly decreased the sickness from other diseases cannot but have had their influence in decreasing it ; and if cholera does not occur in this country it seems quite probable that, by reason of the suffering elsewhere, there may be as many cases of serious sickness prevented in this country as there have been cases of cholera in Europe. But this may not continue without continued vigilance and effort.

CANADA MEDICAL ASSOCIATION.

The following are the papers promised up to the 19th ult. for the Chatham meeting : Dr. Osler (Philadelphia), "The Clinical and Pathological Relations of the Cæcum and Appendix ;" Dr. A. Grant (Ottawa), "Aortic Aneurism, with a specimen ;" Dr. W. B. Geikie (Toronto), "Retroversion of the Gravid Uterus ;" Dr. Burt (Paris), "Internal Urethrotomy;" Dr. Holmes (Chatham), "Puerperal Mania ;" Dr. Kerr (Winnipeg), "Fractures in the Neighborhood of Joints ;" Dr. Fenwick (Montreal), "Amputation of the Breast, with cases ;" Dr. Bethune (Wingham), exhibition of specimens : 1. "Parasite from an Abscess of the Thigh," 2. "Aneurism of the Pulmonary Artery ;" Dr. Worthington (Clinton), "Epidemic Cerebro-spinal Meningitis ;" Dr. Fulton (Toronto), "Subperiosteal Amputation ;" Dr. Campbell (Seaforth), "Trephining the Mastoid Bone ;" Dr. Rutherford (Chatham), "Supra-Pubic Urination ;" Dr. Lett (Guelph), "Inebriety, a Disease the Result of Physical Causes ;" Dr. A. H. Wright (Toronto), "Phlegmasia Dolens ;" Dr. McKeough (Chatham), "Pilocarpine in Puerperal Eclampsia ;" Dr. J, E. Graham (Toronto), "Dissecting Aneurism of the Thoracic Aorta, with specimen ;" Dr. Shepherd (Montreal), "Excision of the Tongue ;" Dr. Alloway (Montreal), "Puerperal Septicæmia ;" Dr. Ryerson (Toronto), "Atrophic Nasal Catarrh ;"

Dr. Atherton (Toronto), "Abdominal Section for Uterine Myomata;" Dr. Nattress (Toronto), "Field Hospitals in the North-West Territory;" Dr. A. E. Hanna (Lansdowne), "Enlarged Prostate;" Dr. Gardner (Montreal)' "Double Uterus, with specimen;" Dr. Oldright (Toronto), "Pernicious Anæmia;" Dr. Ames (Brigden), "Rattlesnake Bite;" Dr. Wilkins (Montreal), "Specimens illustrating the Infective Nature of Tuberculosis;" Dr. Stewart (Montreal), "The Curability of Chronic Infantile Paralysis."

There is every prospect of an important and successful meeting, and we trust that all who can will be in attendance.

OBITUARIES.

HON. DR. E. A. VAIL.—It is with great regret that we announce the death of Dr. Vail, of Sussex, N. B. He has been connected with the government of his native province for many years and was well known for his many good qualities. He was born in 1817, studied medicine in Edinburgh, and graduated in Glasgow University, in 1837. Although he did not seek public honors, his personal popularity led to his nomination and election in 1857, since which time, with few intermissions, he has continued to represent his county in Parliament. He was one of the most skilful and popular practitioners in New Brunswick, and was held in high esteem socially.

DR. ALFRED JACKSON.—In the death of Dr. Jackson, of Quebec, another of the links that join the past with the present generation has passed away. He had attained the ripe age of 75 years, nearly half a century of which was spent in the practice of his profession in the Gibraltar of America. For many years he occupied the important position of Dean of the Medical Faculty of Laval University. He was one of the oldest and most respected practitioners in Quebec, and will be missed by a large circle of friends and relations.

DR. W. G. METCALF.—The news of the assassination of Dr. Metcalf, Superintendent of the Kingston Insane Asylum, by one of the lunatics confined therein, was a painful surprise to his many warm friends in all parts of the province. Dr. Metcalf was one of our most promising young alienists. He had been schooled at the feet of the venerable father of alienists, Dr. Joseph Workman, and had already attained great eminence for a man of his years. He fell a victim to that system of kindness in treatment with which he had been indoctrinated during his early career. He was born in Uxbridge in 1859, and was therefore in his 38th year at the time of his death. He studied medicine in the the Toronto School of Medicine, and graduated in Toronto University in 1872. Soon after, he commenced to devote himself to the treatment of the insane, in which he had already acquired great success. He leaves a young wife, and a daughter by a former marriage.

DR. W. H. MCDONALD.—The very sudden and unexpected death of Dr. McDonald, of this city, took all his friends by surprise. He appeared to be in perfect health up to the time of his death, and was actively engaged in his professional round of duties. The deceased was about 30 years of age, and was a most promising physician for his years. He was gold medallist of Trinity University, and although only a short time in the city had acquired an excellent practice. The cause of his death is supposed to be heart failure, probably occasioned by the use of some medicinal agent.

ACUTE DYSENTERY.—Prof. Da Costa administers ipecacuanha, in twenty grain doses, every two or three hours, guarded with opium, and has had very marked results from this plan. It is especially good in puerperal dysentery, as Prof. Bartholow has pointed out. The opium plan (one-half grain every two hours) is also very good. Rochelle salts one ounce in divided doses in the first twenty-four hours and less thereafter. This does not preclude the simultaneous use of opium. Both the ipecacuanha and the saline purgative plans should be abandoned in two days, if no change in the condition of the patient is seen; they are rapid or valueless in their action. Next comes bismuth subnitrate, ten to twenty grains every two or three hours. The use of ice-water injections three or four times a day was originated by him some years ago, and are valuable in many cases.

PILOCARPINE IN PNEUMONIA.—Pilocarpine seems to be growing in favor in the treatment of pneumonia—especially double pneumonia. It is claimed

that the delirium so common in double pneumonia is due to a uremic cause; hence profuse perspiration will relieve the congested kidneys as well as relieve the lungs to some extent. Carefully given, pilocarpine can do no harm in pneumonia, and is worthy of trial in one-eighth grain doses hypodermically; some advise a fifth or sixth grain dose to procure profuse perspiration.

TREATMENT OF EPISTAXIS.—The following, says the *Lyon Médical*, is the procedure employed by M. Siredey for controlling epistaxis in typhoid-fever patients. Introduce up into the nostril, for a considerable distance, a piece of fine sponge of the size and shape necessary to enable it to enter without difficulty, previously soaked in lemon juice, or vinegar and water. The patient should be kept lying on the face for a length of time, with the sponge in place.

SMALL-POX IN MONTREAL.—The number of cases of small-pox in Montreal during the past month has been considerably increased, and a serious epidemic is threatened. The disease is chiefly confined to the French-Canadian population, and its prevalence and malignancy is owing to the fact that as a class they persistently refuse the protective influence of vaccination. The number of cases among the vaccinated is comparatively small, and the mortality is very light. There is no better evidence of the protective power of vaccination to be found than that furnished by the statistics of small-pox in Montreal.

THE NEW ORLEANS EXHIBITION.—The New Orleans World's Exposition is again to be re-opened on the 10th of November next, under the name of the North, Central and South American Exposition, and continue open until the 1st of April, 1886. The prospectus of the new company announces a greater and more interesting exhibition than that of last year. A large number of the former exhibits have been allowed to remain and the demand for space from new exhibitors has been very great. Those who failed to see the World's Exposition will now have an opportunity of seeing one of the largest exhibitions ever held on the continent.

MURIATE OF AMMONIA IN NEURALGIA.—Dr. Darling, of Brooklyn, N.Y., (*Thera. Gazette*) recommends muriate of ammonia in half drachm doses, every half hour, until three or four doses have been taken, and regards it as a specific for facial neuralgia. He continues the remedy in smaller doses three or four times a day for a few days after the neuralgia subsides. He also advises its use in a similar way for tooth-ache.

APPOINTMENTS.—Dr. J. J. Gardner has been appointed Prof. of Anatomy, and Dr. J. B. McConnell Prof. of Histology, in Bishop's Medical College, Montreal.

Dr. Clarke, of Rockwood Asylum, has been appointed Medical Superintendent *vice* Dr. Metcalf, deceased, and Dr. Millman, of London, assistant Dr. D. A. Bowlby, of Simcoe, has been appointed assistant Physician at the Toronto Asylum in place of Dr. Robinson, who has been transferred to the London Asylum.

COMPLIMENTARY DINNER.—Dr. Horsey, Surgeon to the Midland Battalion, and Dr. Grant, jr., attached to A Battery, were tendered a complimentary dinner by the Ottawa Medico-Chirurgical Society on the occasion of their return from service in the North-West. Deputy Surgeon-General Roddick and Dr. Boyd were also present as guests.

MILK AS A VEHICLE FOR POTASSIUM IODIDE.—Dr. Keyes, of New York, recommends the administration of iodide of potassium in milk, in the proportion of ten grains to the gill. It is easily retained on the stomach and large quantities of the drug can be taken in this way.

BRITISH DIPLOMAS.—Drs. J. H. B. Allen (McGill), D. Gow (Trinity), and H. Bascom (Toronto), have been admitted Licentiates of the Royal College of Physicians, London.

We learn from the *Lancet* that Dr. Keith, the well-known ovariotomist, has just returned from a short visit to America, whither he had been summoned to give his opinion upon a serious case. This is said to be the first instance, since the Declaration of Independence, of America having summoned medical aid from the old country.

WE desire to draw the attention of our readers to the new dress which adorns the present issue, No. 1, Vol. XVIII. The letter-press has been set up in an entirely new font of type made expressly for the LANCET.

Books and Pamphlets.

THE CLIMATE OF CANADA AND ITS RELATIONS TO LIFE AND HEALTH, by W. H. Hingston, M.D., L.R.C.S., Edin., Surgeon to Hotel Dieu, Montreal, etc. Montreal: Dawson Bros.

We are much pleased to welcome this excellent work by Dr. Hingston on the above named subject. Many of the papers which constitute the work were read before the Natural History Society of Montreal, and formed part of the annual course of Somerville lectures. Many additions however have since been made, and we have in the volume before us a very interesting and valuable work on the climate of Canada. The first 94 pages are devoted to the physical qualities of our climate, the second part to its influence on life, and the third part to its influence on health. The work contains a large amount of original matter which no one could furnish who had not access to French sources of information. It will be remembered that the author read a paper on this subject last year, before the British Association for the advancement of Science, which did him the honor of selecting him from the ranks of the profession as Vice-president of the Association. The book has been written during the spare moments of an active practice within the past 25 years, and the author is to be congratulated upon his success in this literary venture. He has shown himself as much an adept with the pen as with the surgeon's knife. The work will well repay a careful and attentive perusal.

A SYSTEM OF PRACTICAL MEDICINE. By American authors. Edited by William Pepper, M.D., LL.D., Prof. of Practice of Medicine, University of Pennsylvania. Assisted by Louis Starr, M.D., Prof. of Diseases of Children, University of Pennsylvania. Vol. II. Philadelphia: Lea Bros. & Co. Toronto: Hart & Co.

A short time ago we noticed the first volume of this excellent work, and we now have the pleasure of calling the attention of our readers to the second volume. It contains the concluding section on general diseases, and diseases of the digestive system. The authors are Dr. Jacobi who writes upon rachitis; Dr. Tyson, diabetes mellitus; Dr. J. Solis Cohen, Dr. W. W. Johnston, and Dr. J. T. Whittaker, on diseases of the digestive system; Dr. Bartholow on diseases of the liver, and Dr. Alonzo Clark, on peritonitis. We have already spoken highly of this work, and see no reason to change our opinion after a perusal of the second volume. It is a faithful presentation of American medicine, and should be read by every practitioner.

MINOR SURGICAL GYNECOLOGY.—A Treatise on Uterine Diagnosis and Gynecological Practice, including Gynecological Operations. For the use of advanced Students and Practitioners.—By Paul F. Mundé, M.D., Professor of Gynecology at the New York Polyclinic, etc. Second edition, revised and enlarged, with 311 illustrations. New York: Wm. Wood & Co.

The above work of 350 pages embraces the practical part of the interesting subject of gynecology, and will be favorably received by the general practitioner, for whom it is specially intended. The book is divided into three parts. Part I, Gynecological Examinations; Part II, Minor Gynecological Manipulations and Applications; Part III, Gynecological Operations. The present edition is a great improvement upon the first edition, published in Wood's Medical Library some years ago. Though not exhaustive, it is full of useful practical hints, and deservedly merits a generous reception at the hands of the profession.

CHOLERA: ITS NATURE, SYMPTOMS, HISTORY, CAUSE AND PREVENMION, with an outline of the Germ Theory of Disease, by J. B. McConnell, M.D., Prof. of Materia Medica, etc., Bishop's Medical College, Montreal. Montreal: R. Miller, Son & Co. 25c.

The above named monograph was prepared for one of the Sommerville courses of lectures, but became so extended as to be delivered only in an abridged form. It is an interesting and comprehensive compilation on the subject of cholera, and, in view of the anticipated visitation, will be welcomed by the profession.

Births, Marriages and Deaths.

On the 5th of July, H. T. Corbett, M.D., Winnipeg, formerly of Ottawa, aged 45 years.

On the 15th of July, Alfred Jackson, M.D., of Quebec, aged 75 years.

On the 31st of July, Hon. E. A. Vail, M.D., of Sussex, N.B., aged 68 years.

On the 16th ult., W. G. Metcalf, M.D., of Kingston, Ont, aged 38 years.

On the 20th ult., W. H. McDonald, M.D., of Toronto, aged 29 years.