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APHASIA.*

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It will be remembered that I last year read a paper on aphasia, which I had hoped would elicit some useful discussion, for the affection is certainly one of much interest, not only to the attentive student of psychology and the pathological anatomist, but indeed to the general practitioner of medicine; nor is its occurrence perhaps so rare as to warrant the conclusion that it may with propriety, or professional advantage, be relegated to the domain of the profitless unknown. There are, in my belief, very few medical practitioners of prolonged observance and discreet attention, who have not, in the course of years, met with cases of speech disorder, which must have led them to desire the attainment of a more intimate acquaintance with the literature of cerebral physiology and pathology, than they had previously regarded as deserving of serious consideration, or, I might perhaps, with more justice say, as adequate compensation for the expenditure of those fragments of time which the exigencies of professional duties leave at their disposal, and which they find less than sufficient for the further study of subjects of every day imperative importance. I confess, however, that when, last year, I found, that after finishing my reading, not a single member present moved a lip, either in corroboration or in disapproval of the contents of my paper, I was quite undecided as to whether I should feel more mortified, or disappointed. If the association was mercifully condoning my intrusion, by the charity of its silence, it was most consistent with sound discretion, to reciprocate the charity. When our friends may be so forbearing and generous as to

abstain from adverting to our failures or foibles, it would be a sorry return for their tender kindness, to attribute their reticence either to lack of discernment or want of social frankness. I did, however, reach the conclusion, that my paper, either from its own demerits, or from the unsuitability of its subject, had failed to interest the audience, to the extent which I had hoped for, and I resolved to consign it to the limbo of the untimely. I therefore declined to accede to the request of a polite medical journalist who wished to present it in his columns, and when another gentleman whose professional ability is exceeded only by his urbanity, expressed his desire to have a reading of it, I had to reply that it was no longer among the findables. Both of these gentlemen assured me that I had judged erroneously of the silent verdict of my confrères, and as I had every reason to confide in their veracity and candour, I felt relieved from the obligation of my unspoken, though strongly purposed vow, never again to trespass on the patience, or the valuable time, of this association, with any matter or paper which I might fear would prove uninteresting or distasteful.

Having premised so much in honest explanation of my past fears and misapprehensions, I shall now, with as much brevity as the nature of my subject will permit, submit to your consideration the following observations:

The term aphasia, or absence of the faculty of speech, is of much wider range of application than may, at first view, by those who have not devoted much time to this branch of medical literature, be supposed. It has been only of recent years that physiologists, pathologists, and clinicians have devoted themselves to its earnest study, in connection with special cerebral conditions. It is true that many years ago Gall ventured to advance certain conceptions as to the relation between human language and particular parts of the brain, but unfortunately for the prestige of his theory, it was associated with a host of overlapping phrenological conjectures which proved repellent to scrupulous sober investigation. But long before the age of Gall the relation between the faculty of language and certain conditions of brain, had been observed, not only by physicians, but also by historians and naturalists. Hippocrates, Thucydides and Pliny have recorded instances of deprivation of speech, consequent on injuries to the brain.

*Read before the Ontario Medical Association, at Hamilton, 4th June, 1884.

Pliny tells us of a man who—"ictus lapide oblitus est literas"—and of another, an orator, named "Messala Corvinus, who, under disease, lost the memory, not only of the names of his servants, but even of his own name." Morgagni, in Italy, 150 years ago, described various cases of aphasia, in his celebrated "*epistles*," with such admirable precision, that one might almost imagine that later investigators had found in them the germs or indeed the outsprung stems of modern discoveries. Unfortunately, however, for the fame of the pioneers in discovery, it has happened in medical science, usually, and in medical literature almost universally, that the race and the rage are ever for the new, and olden treasures, not only are doomed to forgetfulness, but are actually ignored by the panting aspirants for authorial glory. Who, in the present day, ever meets with a student, nay indeed with very many teachers, who hold in high esteem the works of Sydenham, Cheselden, Cullen, Abernethy, Cooper, or even the Hunters or Charles Bell? Bah! these were all merely purblind moles, groping and rooting in the dark. Their optics could not have borne the brilliance of our electric lamps; their snail-pacing thoughts would never have reached parturience under the bare anticipation of our age of steam and lightning speed, of telegraphs and telephones, dynamographs and sphygmographs, of Listerism, and Pasteurism, and Kochism, of evolution and involution and devolution, and the survival of the fittest, which means the utter extirpation of all memory of the old fogies and their glimmering rushlights. Well, since the fates seem so to have decreed, be it so; peace to the ashes of the departed. They are gone, and to be forgotten is the lot of humanity. Let us not waste our tears over their useless bones, but rather speak of their working successors.

It is now a little over thirty years since Broca, after long and patient clinical observation, announced the fact that aphasia stands in direct connection with lesion or diseased condition of the inferior or third convolution of the frontal lobe of the cerebrum, and by far preferentially with that of the left side. I confess that when I first became acquainted with this teaching, I received it with something, not exactly of contempt, but savouring rather much of that semi-derision with which complacent ignorance is wont to regard unlooked for new announcements, which fail to square with

petrified preconceptions. I had read Gall and Spurzheim, and some other minute brain geographers, until I had fallen into utter skepticism on the entire subject of brain regions and boundaries, and I could only regard the great capital organ as a supreme solidarity, or aggregation, not of independent principalities or states, each possessing functions or legislative powers of its own, but all as acting in consentaneous harmony, and all as, some how or other, sharing in, or sympathising with, the acts of each part. It takes time to draw any of us, but especially those of the foggy class, out of our old deep-cut ruts. Indeed I sometimes almost doubt whether I can ever get completely out of mine; but when, from year to year, and day to day, I learn more and more of the facts brought to light by clinical and autopsical observance, and when I see that the doctrine of Broca now ranks in its adherents almost the entire body of eminent observers of the present day, it seems to me that longer holding out is almost as hopeless, if not as senseless, as striving to stem the tide with a pitchfork. I can see indeed no way of getting back into my old cozy quarters, but that of unreading all I have read on my lingering way out, or, which is just equivalent, and far less impracticable to one of my years, that of forgetting it all; and as our early impressions always survive those of later birth, my case, in this regard at least, may not be quite hopeless.

The aphasia which paramountly, if not exclusively, engaged Broca's attention, was but one form of the affection, but it was that which is by far the most usual. It consisted in the inability to articulate words. It was therefore a failure in the muscles of articulation to obey the behests of the will, the simplest and best designation of which is *motor-aphasia*. With this form, in various degrees of evolution, you, Mr. President, must be, as I myself long was, far too familiar. In that hopeless mental disease, properly best known under the designation of general paresis, motor-aphasia is often an early and a surely progressive symptom. In corroboration of Broca's doctrine I cannot here do better than to quote the following passages from the recently published lectures of Dr. Clouston, of the Royal Insane Asylum at Edinburgh, whose recently published lectures on mental diseases, constitute the most valuable work on the subject I have ever had the pleasure of reading.

Page 272—Lect. 10.—“I have many times seen general paralytics aphasic after congestive attacks. In such cases, and in all cases where the speech was specially affected during the disease, I have always found after death that the third frontal convolution of the left side, and that region of the brain, had the pia mater especially adherent to the cortex.”

Page 277—Lect. 10.—“I had once a patient, a young woman, (G. N.) under thirty, who, having heart disease, became hemiplegic on her right side, and aphasic after the birth of a child. Immediately after these there came on great mental depression, with suicidal tendencies, for which she had to be sent to an asylum. The hemiplegia passed away, but the aphasia remained all her life; and when the mental depression passed off, in a few months she gradually became exalted, and remained so for some months. Then she again became depressed, and was mentally a typical case of alternating insanity (*folie circulaire*) for the seven years she lived after this. She at last died of heart disease, and I found Broca's convolution almost destroyed by an old embolism, but the rest of the brain with only the traces of repeated excitations and congestions.”

Page 279—Lect. 10.—“I need hardly say that if the lesion affects the posterior portion of the third frontal convolution of the left side, or the island of Reil on that side, or the fibres of communication inwards from those parts, or certain portions of the extra-ventricular nucleus of the *corpus striatum* of that side—in such cases we will have the aphasic speech symptoms. It is a disputed question whether complete aphasia can co-exist with perfect integrity of the mental faculties. If the lesion be strictly limited to the speech centre, which it very rarely is, the loss of mental power may be slight, but whether we can have mental completeness, according to the previous standard of perfect health of the individual, is another matter. I do not believe we can have such completeness if we could apply proper tests. I have never seen a case where it existed.”

The name of Dr. Clouston is, in my estimation at least, a guarantee for the safety and soundness of any opinion bearing his approval. He has made insanity and its concurrent bodily ailments the supreme study of his life, and he had the great advantage of serving for several years under the distinguished Dr. Skae, a gentleman who himself

enriched the specialty with some valuable contributions. Dr. Clouston has not jumped in the dark to his conclusions. He studies the morbid anatomy of the insane in the great book of nature, on the *post-mortem* table, and he never misses holding an autopsy unless when the friends of the deceased patients refuse him the privilege. I cannot close this allusion to his work without recommending it in the highest terms to every member of the medical profession, for it will certainly be read with both profit and pleasure by every thoughtful practitioner or student.

You will have observed that Dr. C. expresses his doubts as to the existence of well-marked aphasia in the presence of conserved mental power. It is certain that as regards the class of patients with whose mental condition he was most intimately acquainted, that is to say, persons of unquestioned insanity of mind—Dr. C's statement must be correct. But all aphasics are not sent into lunatic asylums, and it has been discovered in some countries, in which medical examination may not have been so exact as it is in Scotland, that aphasic persons have been deemed to be insane who were found not to be so.

There is a very interesting, and indeed a very puzzling form of aphasia, to which Kussmaul has given the name of *verbal deafness*—or deafness to words—a rather misleading designation, inasmuch as no deafness is present. The patients hear quite well, but the words spoken to them fail to convey their proper meaning, or indeed any meaning whatever, unless they are conjoined with gestures which of themselves may indicate the meaning of the speaker or interrogator; and then, to prove that the patients are not unable to understand what is thus communicated, they perform the acts required of them—such as putting out the tongue, and so forth.

Dr. Seppilli, of Imola, and Dr. Brugia, of Ferrara, Italy, have given in the last issue of the *Rivista Sperimentale*, and of the *Archivio Italiano*, respectively, two long and very instructive articles on this form of aphasia, from which I might advantageously quote largely, were it not that it would be unjust to these writers to make abstracts which would be imperfectly appreciated when detached from the contexts—I must therefore in fairness to them, and in compassion towards you, limit my citations to a few summarized facts.

Dr. Seppilli has exhibited, in copious tabular forms, the details of twenty cases gathered by him from the medical histories of twenty persons who came under the observance of various physicians, nineteen of which have been continental and one English. It might almost go without saying that the majority of these have been German—no less than thirteen of the whole number. This fact may serve as a sufficient assurance of the minuteness, if not also of the accuracy of the records. In the separate vertical columns Dr. S. has given the ages and sex of the patients, the aphasic symptoms, the degree of intelligence, the state of sensibility and motility, and last, the autopsic findings. In seven of the patients the state of intellect was more or less weakened; in the remaining thirteen it was not affected. The hearing was perfect in 18; in the remaining two its condition is not stated. Dr. Seppilli has given the pathological state of the brain in 15 of the 20 cases, in which *post-mortems* were obtained, and he has added to these two cases of his own, of which he has given very ample details, thus making 17 well-observed cases. The autopsic results are thus summarized by Dr. Seppilli:

In all the 17 cases the first temporal convolution on the left side was found diseased.

In one of the 17 the second temporal convolution was diseased, and in two others in company with that of the right side. The third temporal convolution was diseased in only one of the two above named, and then on both sides. The island of Reil was diseased on the left side in 5; third left frontal in 4; the second left frontal in 2; the first left frontal in 2; the ascending left frontal in 3; the inferior parietal lobule on the left in 5, and on the right in 1; the angular gyri in two on the left and one on the right; the occipital convolutions in two on the left, and on both sides in one of these. *The right temporal lobe was not found isolately diseased in a single case.*

It is to be noted that the third left frontal, or Broca's convolution, was found diseased in only four cases, and the island of Reil, which later writers have associated with the foot of the third frontal, as the governing centre of speech articulation, was diseased in five cases on the left.

This preponderance of diseased condition on the left side of the brain seems, in this form of aphasia, to show an interesting parallelism with

the diseased condition found on the same side in motor aphasia, but at the same time a very notable difference as to convolutional localization. It is seen that while motor aphasia has its morbid seat in the third frontal convolution and the island of Reil, the aphasia called verbal deafness has its seat preferentially, in the first or uppermost temporal convolution on the left, and the diseased condition of the second temporal does not occur isolately, but always by extension from the first, and then only limitedly, in contiguity with the first. The part diseased is invariably the convolutional cortex, with occasional dipping into the white medullary matter beneath it. The meninges are found tenaciously adherent to the cortex, from which they do not separate without dragging off some of its softened and disintegrated constituents.

When Broca condensed his cerebro-lingual creed into the quaint expression, "brain left-handedness," many cynical critics were tempted to regard *his* brain as entitled to the first rank in the class of strabysmal thinkers, but many who then scoffed have since learned to admire the aptitude of his laconic expression. The discoveries of Sir Charles Bell taught us that the voluntary muscles of the right side are under the government of the left side of the brain, and *vice versa* those of the left side under the government of the right side of the brain. Bell did not venture to assign the motorial sovereignty to any special parts of the brain, but modern physiological experimenters have amply filled up the lacuna. Hundreds of zealous cerebral explorers, whose findings are often opportunely confirmed by able clinicians, have placed the doctrine of cerebral localizations on a basis from which the cavils of fault-finders and flaw-hunters have failed to upset it. If our right hands are pre-eminently, though not indeed exclusively, under the control of the left side of the brain, why should not that other, too often unruly member, the tongue, and its motor-coadjuvants, be placed under the same dignified authority? But it will be objected that the tongue and its associate speech muscles, are not one sided movers, yet they sometimes are one sided non-movers. It does not however follow because the left side of the brain, or in this relation, to speak more pertinently, Broca's convolution, with, probably, the island of Reil, is the chief seat of speech legislation, and, it may be, of idea-motor inception, that the right

side of the brain should not be a willing co-operator. A good wife governs best when she best aids her husband, but when she refuses to him the prerogative of inceptive action and predominant direction, the peace and prosperity of that house are certainly seriously jeopardized; and have we not all seen how great is the embarrassment in business affairs, of even the cleverest woman, when death has taken away her best counsellor and guide? It is just so with our speech organs when their ruling cerebral centres have been dethroned by disease; and, alas! it is too often, if indeed not always, found, that when the left motor-speech centres have become diseased, their homologues on the right side fail to assume the function of speech direction.

It has, I think, been clearly established, that motor-aphasia has been, in the great majority of cases, associated with some lesion or disease of the left cerebral centres. It is also a well-known fact that the great majority of mankind are right-handed. There surely must, in these coincidences, be something other than mere accident. But if right-handedness be, through the intermedience of left brainedness, the normal associate of speech articulation, and if both stand in directive relation with the same side of the brain, so that paralysis of the one is usually associated with the same morbid condition in the other, what should we expect to be the autopsic cerebral findings in the cases of left-handed aphasics? Hitherto but few opportunities for learning the facts in this class of cases have been presented. Westphal has, however, recently detailed a case bearing directly on this question. "It was that of a man of 45 years, who from the year 1879 had been subject to convulsive attacks in his right members, accompanied by loss of consciousness. At a later period paresis of these parts presented, with bilateral papillary stasis and complete blindness. There was no disturbance of his speech nor any sign of motor aphasia, or of verbal deafness. This person was, from his childhood, left-handed. He died on the 9th of November, 1883, and at the autopsy there was found a large tumour in the left temporal lobe which was by it completely destroyed." This case is in perfect analogy with the fact of absence of motor aphasia in those left-handed persons in whom the convolution of Broca (the foot of the third frontal) was found destroyed. Westphal's patient,

as we have seen, was left-handed, and the lesion of the left temporal lobe ran its course without any symptom of *verbal deafness*.

It is here to be observed that Dr. Seppilli was treating, not of *motor aphasia*, but of that other form which Kussmaul has called verbal deafness or sensorial aphasia; this latter form, Seppilli labours to prove, has its cerebral location paramountly in the first temporal convolution on the left side. The case is of little value as regards the absence of motor aphasia, for we are not informed of any morbid condition of the frontal lobe in Broca's convolution, or in the island of Reil; but if it be the fact that sensorial aphasia, or deafness to words, stands related to the left temporal lobe, then in Westphal's left-handed man the lesion was on the wrong side for production of this speech affection. The brains of left-handed men would therefore seem to be properly called right-handed.

In amnesic aphasia, or that form which consists in the loss of memory of words, and which may or may not be associated with loss of articulating power, a very interesting fact is the progression of the affection as regards the order or sequence in which the parts of speech cease to be remembered. It is usually found that nouns are the first to be forgotten, and next to these verbs. I think the very same fact obtains in aged persons, and here I have the unpleasant advantage of speaking from personal experience. Kussmaul expresses the belief that this progression of failure of recollecting power probably depends on the greater or less degree of intimacy in which the conceptions are connected with their corresponding verbal signs, and as the idea of a person, a thing or an action is conjoined with its designating vocable less intimately than are the abstractions of quality, resemblance, properties, etc., it is clear that when the memory begins to fail, those symbols which are most feebly bound to thought will be the most readily obliterated. It is easy to discover that the mere name contributes but in a very slight degree to enable us to acquire the concepts of personalities or objects; we might almost say that it is an accessory element joined to a sensitive image, which image has within itself whatever suffices for constituting a distinct objectivity; abstract ideas, on the contrary, exist only in so far as they are to us symbolic expressions

which give to names their essential character and their stable aspect." If Kussmaul is right here, how senseless must be almost the entire prevailing system of present day cram education, which at the expense of unspeakable torture to the child and endless agony to the teacher, stuffs the poor little victim's brain with mere words, which have no adhesive property that may ensure their remembrance. "Further," says Kussmaul, "when we consider the constituents of language, we cannot fail to observe the enormous numerical disproportion that exists between substantives and verbs on the one side, and the whole of the grammatical elements on the other. It seems quite reasonable that the weakened memory should more readily evoke the recollection of those vocables of which the number is fewer and the use less variable (as articles, pronouns, prepositions, etc.), than that it should not among the multitude, hit upon the symbol appropriate to the designation of a given object or a determinate action."

We are all well aware of the fact that certain persons are possessed of special forms of memory, one for names of places or persons, another for dates, a third for poetical compositions, etc., etc., and these peculiar, or as we might say, automatic faculties, seem by no means to be necessarily conjoined with superior intellectual strength, for we meet with them sometimes in imbeciles, or even the semi-idiotic. Bastian, in explanation of this phenomenon of memory has recourse to the supposition of the possibility of a distinct anatomical seat for the sensitive elaboration of words used for designating persons, places and things. "It is," he says, "rational to suppose that these terms may be in more immediate relation with the *perceptive centres*; whilst the words for the other parts of language would be more intimately associated with the regions in which the *perceptive processes* are mixed up in the more complex and more intellectual operations. Hence, in general, the inaptitude to recall nouns and the errors fallen into in names of persons, places and things, would be troubles accompanying lesions or alterations in the *perceptive centres*; whilst, on the other hand, the extreme forms of amnesia must, most probably, be associated with marked trouble in the *intellective faculties*."

This explanation of Bastian is, of course, no more than a gratuitous hypothesis, but it is not devoid of fascinating plausibility.

A very interesting, though not always, as you, Mr. President, must not seldom have realized, a very pleasant fact, connected with aphasic patients, is that of their sudden and quite unexpected interjectional outbursts, long after their linguistic powers in other directions have seemed to be totally extinct. Falret has very truthfully noted the fact, that "an aphasic, under the influence of fright, anger, rage or any other strong emotion, will let fly an energetic expression, an interjection, an oath, which he articulates with great exactitude, and even a whole string of them in succession; but a little afterwards, when calm returns, it becomes impossible to him to articulate again the words which had sprung up, as if instinctively," in his devastated field of ideation. Might we not charitably infer that something analogous to this desert cerebral condition, exists in the brains of persons addicted to the senseless habit of profane swearing, who fill up with interjectional expletives, those linguistic vacancies which their intellectual poverty renders them incapable of otherwise fitly tenancing? Imperatively and utterly to suppress the profane objurgations of these persons would be nothing short of reducing them to amnesic aphasics. Pass through the odoriferous knots of the great and the little unwashed, who ornament our street corners on Sunday evenings, or hearken, reluctantly, to the silly twaddle of a string of our dandy promenaders, and then tell us how these poor creatures could contrive to escape profound mutism if deprived of their connecting linguistic links. As well might you expect that a bungling mason, without mortar or shaping-tools, could build a sound and sightly wall out of incongruous boulder-stones! Men of good sense and cultivated minds do not swear, because they have no room for oaths in their discourse. Be considerate, then, towards the poverty stricken bipeds. Deal with them as you have to deal with your young victims of chlorosis, who will eat mortar, tobacco, pipes and other nasty things, until you improve their blood and rectify their nervous aberrations. But here I should apologize, for I have fallen into an impertinent digression. Happily the age has passed away in which profanity of language was regarded as the stamp of gentlemanhood, and the members of our profession find that it does not in the least detract from their prestige to appear aphasic in the art of swearing.

Before closing this rather discursive paper I may properly allude to another form of speech deprivation, which Kussmaul calls *verbal blindness*, or the inability in persons who have previously been able to read printed or written words, to comprehend their meaning. This morbid condition may be, and probably most frequently is, associated with verbal deafness, and when it is so connected it is reasonable to believe that the underlying cerebral morbid condition is more extensive and formidable. Both verbal blindness and verbal deafness stand in close affinity with amnesic aphasia, but sometimes the latter may be supposed to be present when it is not. Dr. Seppilli discovered that one of his patients who was so deaf to words as to appear to hasty observers completely dumb, had neither forgotten the meaning of words nor how to articulate them. Her expressions were, of course, purely spontaneous, for she had no dialogistic capability. To nothing spoken to her could she make appropriate response; but the little she did speak was normally pronounced, *e. g.*, "Please, Doctor, send me home; I do not want to stay here; I am quite well; my name is Assunta." Dr. S. was unable to test her reading or writing capacity, as she was "analphabetic." In this case there was neither motor nor amnesic aphasia. But this exemption was not to be interminable. In a few months she had an apoplectic attack, from which she fell into a state of transient semi-coma, and lost the power of speech. She survived this attack about two months, and died finally from pyemia, consequent on a rebellious parotitis, and intractable bed sores over the sacrum and the trochanters. The post mortem showed the whole surface of the first temporal convolution on the left side, and the adjacent border of the second, diseased, besides several spots on the first and second frontal convolutions, and the orbital region of the third frontal, but not its middle part, or its foot. This exemption from diseased condition in Broca's lingual region, taken in connexion with the absence of previous motor-aphasia, is deserving of consideration, whilst the diseased position of the temporal lobe, taken in association with the patient's verbal deafness, seems to indicate for verbal deafness a cerebral location distinct from that of motor-aphasia.

It is not only natural, but really necessary, that functional disorders which can exist separately

from, and independently of, each other, should have different and distinct cerebral local centres; but considering the intimate relationship that, in the normal state, exists between the faculties of hearing and seeing, on the one side, and vocal and written language on the other, it must also be necessary that structural media of inter-communication between the several centres should be provided. (*Vide Archives*, March, 1884, page 121, for Kussmaul's, and page 135, for Wernick's ideas of the arrangements.) It is easy enough, on paper, to diagraph anatomical arrangements to meet the exigencies of physiological hypotheses, yet such delineations are often conducive to the introduction and the retention of injurious errors. Kussmaul's diagram of four small circles, surmounted by his large *ideogenetic centre* container, with their graceful curvilinear connectors, is rather fascinating; but until anatomy shall have shown that it is a veritable representation of cerebral arrangements, and not a mere vision of his mind's eye, it might be as well that we do not let it any deeper than this poetic organ into our domain of mentality. In Wernick's brain map (p. 135) we see how easily and gracefully his little curve, connecting the regions x and y passes across the rubicon of the Sylvian fissure, but when we try the experiment on a real human brain, we must certainly discover that the path is not so short nor so easy to trace as the map shows it. The most, or the best we can say of these anticipative delineations of yet unexplored cerebral mail routes, is that they are better suited to please the imagination than to convey reliable or useful instruction or sound knowledge.

I am well aware, gentlemen, that to those of your number who have had the good fortune and the patience to read the elaborate article by Kussmaul on Aphasia, in Ziemssen's *Encyclopædia of Medicine*, this paper must appear a very lame production; but its object has not been to treat exhaustively of the numerous varieties of morbid speech defect. My chief desire and aim have been to invite from my auditors such interesting facts in this relation, as have fallen under their own observance, for I cannot doubt that some of you must have encountered cases of cerebral disorder in which aphasia, in some form or other, or in some degree, has commanded your thoughtful attention, and no little increment to our knowledge of a functional disorder, whose study has been of so recent inception, can fail to prove instructive.

LATER ANTISEPTICS IN PRIVATE SURGICAL PRACTICE.*

BY N. A. POWELL, M.D., EDGAR, ONT.

In discussing the treatment of wounds, a subject confessedly the most important in the whole domain of surgery, we have no longer to ask, "Shall antiseptics be used?" That question has been answered, and in its place have arisen the queries "What antiseptics shall we use?" and "How shall we use them so as to obtain for our patients the greatest safety and benefit, and for ourselves the least trouble and expense?" The principles which underlie their scientific use, and with which for all future time the honored name of Sir Joseph Lister will be associated, briefly stated, are:—1st. That in the air, in fluids, and in the dust around us there exist particulate living bodies which may gain access to any wounds not subcutaneous. 2nd. That entering a wound they are the active agents in setting up putrefactive fermentation in its discharges. 3rd. That if they are absolutely excluded or are rendered innocuous, fermentative changes, with their frequently disastrous consequences, will not ensue. These principles the surgical world has, either in words, or in actions that speak louder than words, accepted as proven. Founded upon them we had till recently only that system worked out by the father of all antiseptic surgery, and known by the name of Listerism. It aims to prevent the entrance of germs into wounds, and to keep these wounds strictly aseptic. Volkman modified this by washing the germs from the wound while it was exposed, and then protecting it from them by a dressing similar to Lister's. Billroth disregards the entrance of germs into wounds, or their presence in discharges, but depends on destroying their power for evil by the presence of an antiseptic powder. While carbolic acid remained the only or the chief antiseptic, no modification of Listerism was advanced suited to the requirements of private practice. The original method of Lister, befogged with spray and enshrouded in the folds of a mysterious gauze, the proportion of antiseptic, in which might be anywhere from 5% to ½ of 1%, poisoning the patient or keeping his wound sodden and in an unfavorable state for rapid healing,

irritating the wound till its discharges soaked through the thickest dressings, intricate, troublesome and expensive, had but one thing to commend it to the general practitioner. That one thing was the success attending its full and careful use. My practical experience with it began in 1873, in the treatment of a compound fracture. Ever since then I have followed, sometimes perhaps afar off, the practice of the Lister school. By doing so I have reached some results that by ordinary methods, I could not have hoped for. Of these I shall mention here only one series: Five penetrating wounds of the knee-joint, chiefly axe-cuts, recovering perfectly and promptly. It is but just to say that ice supplemented the action of the antiseptics in each of these cases. In the treatment of less grave wounds, I have like others been seeking constantly for simpler, safer and less costly methods. The spray I long since abandoned for the douche, and the unstable carbolized gauze for that prepared at the time of use with Von Brun's solution. But it is only since the later antiseptics appeared and their value was demonstrated, that I have felt the slightest danger of becoming a contented routinist.

Named in the order of their importance these are: The bichloride of mercury, iodoform, boracic and salicylic acids. Within the last four years they have been employed by numberless careful observers, and conclusions as to their safety and relative value have been reached. The most exact and extensive of these observations have been made in Germany. Based upon the methods of their use in that country, as described in recent literature, or as followed or modified in the New York, Roosevelt, Mount Sinai, and German hospitals of New York city, where I have lately had opportunity of studying them, I wish to describe a method of wound treatment particularly adapted to the needs of private surgical practice. At the same time I do not wish to go on record as advising that any one method of treatment be used for all classes of wounds. The shoemaker who works on a single last is not the one who fits his customers most exactly.

The aseptic condition, close approximation, drainage, the elastic pressure of dry and absorbent dressings, rest and protection, *these* are what we should aim to secure, and through them by the method now to be described, we may expect most

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wounds to heal without suppuration and under a *single* dressing. Under an essentially similar method, Esmarch and Neuber of Kiel, found it necessary to change the dressings more than once in but 11 out of 212 cases of extensive wounds. Made, closed and protected in this way, one may leave, as I frequently have left, wounds to await a convenient hour for further attention at any time within 10 days. Pain, fever, or the appearance of discharges are to be reported by the friends of the patient at once, and are the indications for the renewal of the dressings.

It will be convenient to suppose that a tumor of moderate size, situated on the fore-arm, is to be removed at a country farm-house. The arm of the etherized patient is brought through an opening in a rubber sheet, and the upper part of this opening is drawn closely and secured by a safety-pin, or is laced or contracted by a purse-string of elastic tubing. The folds of the sheet are then so disposed as to convey fluids into anything convenient, placed on the floor to receive them. Next comes the thorough cleansing and disinfecting of the part to be operated on, and of the hands of the operator and his assistant. Soap, hot water, and a nail brush first, and then a solution of the bichloride of mercury, 1:1000 should be freely used.

At the New York Hospital, in the service of Dr. Weir (to whom personally and to whose writings I am much indebted), the field of operation is also bathed with turpentine and alcohol, 1 to 7. The standard antiseptic solution may be prepared easily and with sufficient exactness when and where wanted by dissolving an 8 grain sublimate powder in each pint of water. I am in the habit of carrying these powders in a hard rubber pocket match safe. The recent discovery by Sir Joseph Lister that sublimate is soluble in $1\frac{1}{2}$ times its weight of glycerine, may furnish a still more convenient mode of preparing our solutions. Such a glycerole would doubtless diffuse in water more rapidly and uniformly than a powder could dissolve. The 1:1000 solution is to be mixed with an equal measure of hot water, for use in cleansing sponges and douching the wound. A tank, a fountain-syringe, or Esmarch's inverted and bottomless bottle, arranged as I show you, may be used, but most convenient and portable of all is the syphon douche now presented. This consists of a sinker weighing 3 oz.,

attached to one end of a tube of thick rubber 4 or 5 feet long, on which has been slipped a clip to close the tube when desired. These replace the short afferent tube and light sinker of any good syringe made after the Davidson pattern. Any pitcher will do for a reservoir, and the thick tube coming over its edge will form a curve instead of an angle, which would occlude it partly or completely. A fine nose tip of hard rubber is convenient during operation, but a tapered tube must replace it to inject the drainage tube and the deeper parts of the wound. Constant irrigation, though not required, is harmless. Since the mercuric salt acts injuriously on instruments, rusting and dulling them, and losing its strength in doing so, we have yet to use for their disinfecting a saturated 1:20 aqueous solution of carbolic acid. In this strength carbolic acid benumbs the fingers dipped frequently into it; hence it is well, when one is his own assistant, to place a towel wet with bichloride solution, when the instruments in use can be for the moment laid down, instead of being returned to and fished out from the carbolic lotion as wanted. The cutting instruments can be conveniently at hand on a plate or platter, while a bowl makes a bath for the forceps. Of these last, since the securing of every bleeding point is so important when the effort is to gain entire primary union, I make mention of the exceptional value of Sir Spencer Wells and Pean's pressure forceps, and of the torsion forceps of Fricke. Good models of these are shown, since bad ones are common. The plan of going down for a bleeding vessel, and lifting into view successively deeper and deeper portions of tissue with a pair of dissecting forceps held in each hand, is worth referring to in this connection. Sponges should be kept and carried in a sublimate solution. Dr. Weir showed me a rubber ice-cap, with large hard-rubber screw top, which made a very convenient receptacle for them. Not less than three basins of warm 1:2000 solution should be provided for the cleansing of the sponges. Passing through these in rotation, they reach the operator clean and dry. This point I should hardly have mentioned if I had not seen sponges so often thrown into and taken from the same basin during an entire operation. Many surgeons, who would not think of using dirty water for their own faces, apply it without stint to their patient's wounds.

The tumor removed, every bleeding point is to be secured by torsion or the catgut ligature so as to leave a dry wound. At present in New York, catgut which after preparation, has been kept in oil of juniper or in absolute alcohol, is used almost entirely. It ties and keeps its knot better than that preserved in carbolized oil. In ligating arteries, I use now only the two larger sizes, as the smaller ones are not strong enough to stand being tied, as Robert Liston said ligatures always should be, "devilish tight." For sutures, however, and in particular for the "sunken sutures" of the Germans—those by which we close together muscle to muscle in the deeper parts, tying the knot far below the skin and obliterating the wound, they are excellent.

The lines of drainage should be next arranged, and in them placed one or more absorbable tubes. I show you those of Neuber, imported from Germany, and those of MacEwan, made by my assistant, from the femora and tibiæ of chickens. Since the one form has with me succeeded as well as the other, and since the natural tubes can be bought in the flesh for about the same price as the drilled and turned ox-bone in oil, my decalcified tubes in future will, I think, be after-dinner considerations. If the wound is to be dressed again within a week, either rubber tubes, horse-hair, or Chiene's chromic-acid catgut may be used. The two last I have not found to drain pus well, though they are excellent for the early serous discharges. For closing the wound, catgut should be preferred. Horse-hair answers for adjusting the edges of the skin, and silver wire secured by lead buttons may be needed to sustain tension. If silk be used at all, it should have been prepared by boiling for an hour in a 5% carbolic lotion, and should have been kept in one of the same strength. The line of union is to be dusted with iodoform, and then covered with several handkerchiefs of 10% iodoform gauze, or $\frac{1}{4}$ of 1% sublimate gauze, over which a roller of the latter material is to be applied. The dressing is completed by the adjustment of bags or pads filled with some one of the absorbents presently to be spoken of, by a second roller, and a splint to secure perfect rest to the part. Cheese cloth, boiled in a soda solution to remove fatty matters, and then washed in water to get rid of the alkali, answers for the preparation of the handkerchiefs, the bandages, and the pad covers. Iodoform

gauze is made with this very simply, by Billroth's plan of rubbing the crystals into the meshes of the cloth. From 10 to 20 % will be retained. Another method is to saturate the cheese cloth in iodoform 50 parts, ether 250 parts, alcohol 750 parts, and allow the fluids to evaporate. This gives a 10% gauze. Iodoform is always a desiccating dressing, hence it is important to bring the ends of the drainage tubes through the layers in contact with the wound. Neglect of this in one case where I had drained a compound fracture extending into the elbow joint, caused the end of the drain to be sealed in the antiseptic scab, the serous discharge to be retained, and the temperature to rise to 103° F. All went well again when the mistake was corrected. The great value of iodoform lies in its permanence. It constantly evolves an antiseptic influence, as penetrating and as persistent as its own odor. Being non-irritant, a moderate quantity between the lips of a cut will not prevent union by the first intention. Neuber warns us that not more than 45 grains should be applied at any one time to a raw surface. When first introduced, large wounds, as after hip excisions, were filled with it, and deaths followed. Now we have the authority of Lister, Macormac, Longman, Billroth, Sands, and many others, for considering it to be the best-known antiseptic for direct application to wounded surfaces.

The bichloride gauze is made by simply saturating the cheese cloth with bichloride of mercury, 20 parts, water 4,480 parts, glycerine 500 parts, and allowing it to dry as far as the glycerine will admit. Its active agent, besides being the most powerful antiseptic of which we have any knowledge, is always at hand, is safe, permanent, pleasant to handle, and is only irritating to the extent of producing an occasional slight dermatitis.

We come now, and finally, to the absorbents which may be used to soak up and keep harmless all fluids which our internal drainage has brought to the surface. Of these I show you hygroscopic cotton and the same containing 15% of boracic acid. They will each take up, as I have found by experiment, 16 times their own weight of water. wood-wool, 14 times; german peat, 12 times, and jute, 8 times. Dr. Weir is now testing the ordinary moss of our woods as an absorbent. After drying it in an oven to kill the insects it may contain, he finds it soft, elastic, and able to soak up about four

times its weight of water. The *New York Medical Record* of last week contains a letter from Dr. Lydstone, of Chicago, advocating the use of punk or spunk, a substance used by dentists to dry out cavities in teeth. I show you a piece, part of which when tested was found to absorb 11 times its weight of water. I have not been able to obtain wood-wool from the paper makers here. That shown and also the peat came from Germany. Both are exceedingly cheap, costing only six or eight cents per pound in original packages. Specimens of each are shown as they come to us, others impregnated with equal parts of corrosive sublimate and glycerine in 200 parts of water, and still others, sewed in bags of sublimate gauze ready for use. The wood-wool is made from pine of non-resinous character, is soft, cottony in texture, elastic, and clean to work with. I prefer it to any thing excepting the cottons, which cost many times as much, or peat which costs about the same. Wood-wool collapses when thrown into or saturated with water. On this account the roller first applied should not cover any dressings containing it or the pressure may not be maintained and the result may be compromised. It has, as was recently pointed out by Lister, in the discussion at Woolwich on antiseptic field surgery, the same composition as cotton rags, which may replace it if used in sufficient mass. Dr. F. Lange, who is perhaps the best exponent of German antiseptic surgery in this country, is partial to borated cotton arranged in thick sheets and covered with sublimate gauze. I show you a "compound borated dressing" prepared as he directs.

The story of the introduction of turf, mould or peat may be new to some here present. About four years ago a man applied to Dr. Neuber, assistant to Esmarch in Kiel, relating that ten days before he had while working on the moor sustained a severe injury to the fore-arm. To this had been at once applied a thick coating of mould and a rude splint. On examination the wound was found free from suppuration and either united or granulating well, though there had been compound fracture of both radius and ulna, rupture of the wrist joint and extensive laceration of the soft parts. Neuber followed up this broad hint as to the value of peat, and its use has been attended by rapid and satisfactory healing of the parts it protected. A special advantage of peat is its power

to absorb the gaseous products of decomposition, such as ammonia. Used as a litter for horses the same beds have, according to Dr. Ernest Hart, been in use for two or three months. It absorbs best when slightly dampened, is soft, as you see, and very elastic.

In conclusion, I do not propose to enter into any recital of cases or statement of results. The method advised is one of the antiseptic methods, and results obtained by it belong to that system, the beneficent influence of which can be as little questioned as can be the good to mankind that followed the discovery of the hæmostatic use of the ligature, or the anæsthetic use of sulphuric ether. The materials required can all be carried in a small satchel, and all be purchased with what would be only a fair fee for their first use.

MANAGEMENT OF THE THIRD STAGE OF LABOUR.*

BY GEORGE A. TYE, M.D., CHATHAM, ONT.

GENTLEMEN:—The management of the third stage of labour is always full of interest because it is so closely connected with *post-partum* hæmorrhage. The object of this paper is chiefly to discuss Credé's method, a method lately warmly advocated by some prominent obstetricians. Unless properly limited it may bring disappointment to the practitioner and disaster to the patient. The third stage, like the preceding ones, is a strictly physiological process and requires no assistance as long as the conditions are normal. When, however, the conditions are pathological, then alone is interference justifiable. When the uterus has been for a length of time vigorously engaged in the previous stages it is naturally more or less exhausted, and before commencing the third stage requires a period of rest. After this rest contractions occur spontaneously, at first gentle, then gradually increasing in power; each contraction separates a portion of the placenta, and simultaneously closes the sinuses, and finally expels the whole contents of the uterus. The efforts thus begun continue till all danger of hæmorrhage is past.

This is Nature's method and can never be improved by Art. During this process the accoucheur is only a watchman, keeping the hand over the uterus, to warn him should internal hæmorrhage

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occur, and convey to him the nature of the uterine action. It is the practice of some to interfere : 1st, by traction on the funis ; 2nd, by external pressure from all sides towards the os. The latter process, known as Credé's method, has been taught and practiced for the last twenty-five years or longer. These methods are both unnecessary, because the process can be accomplished without their aid ; they are both wrong, because they tend to deliver the placenta prematurely, that is before sufficient contraction has set in, and therefore favour *post-partum* hæmorrhage. The method of traction on the cord being rarely practiced requires no comment. Credé's method is taught, considerably practiced, and lately warmly advocated, and that in all cases. When Credé's plan is practiced the placenta may be separated by the combined forces of the uterine effort and external pressure. But it is frequently detached by the external pressure alone, after separating a portion of the membranes which are liable to be retained. The placenta acts as a tampon, and as a stimulus while in the uterus and is of service until Nature's *tourniquet*, uterine contraction is ready. When the conditions are abnormal, such as strong adhesions, and strong uterine efforts fail to deliver in a reasonable time, then the method of Credé is valuable and will hasten expulsion. These cases are rare. It is the practice of this method in *every* case that is unjustifiable and dangerous. For ten years I practiced this method and had a large number of hæmorrhages. I was struck by the fact that in all the labours to which I was called and arrived late flooding had rarely occurred. Cases attended by midwives, who did not interfere, were nearly exempt. These facts caused me to abandon the method and to rely upon the natural process as already indicated; the result has been most satisfactory and convincing during the last seven years.

Dr. Garrigues, of New York, in a recent paper before the Academy of Medicine, strongly advocates Credé's method. His first statement is that it should be used in *all* cases. Amongst the advantages that he claims for it is the *prevention* of hæmorrhage, but proof of this assertion is not in the paper. In the discussion that followed, Mundé speaks of Credé's method as a very excellent one, and free from danger when carried out aright, but qualifies it thus :—"When carried too far it might cause too rapid expulsion and favour inertia." He

still further modifies it by saying, "The placenta should not be expressed until it is detached, but the uterus should be made to contract by manipulation and separate it, then it could be expressed." This statement is true and sound practice, but it is not Credé's method. When the placenta is once detached it is a foreign body and may be safely expressed, even traction on the cord may be admissible.

Dr. Isaac C. Taylor said that he looked upon everything connected with childbirth as a physiological process, and thought we should not interfere with this process. Nature's method was to wait twenty minutes or even an hour. She was fatigued and needed rest. We should not compel her at once to renew her efforts to deliver the placenta. Medical opinion abroad is not now so favourable as formerly. Hofmeyer in a report on Obstetrics and Gynæcology in Germany, says :—"It is unquestionable that a certain reaction has set in against the method of the immediate expression of the placenta after labour introduced by Credé twenty or thirty years ago. As long as twelve or eighteen months ago various voices have been raised, Runge, Dohrn, Schultze, and others, calling attention to the disadvantages of an over hasty expression of the placenta, so that Credé himself has been inclined to again carefully limit the procedure introduced by him. Quite recently the manifold dangers of this method have been very minutely exposed by Attfield, chiefly the liability to secondary hæmorrhage and the retention of membranes. At the meeting of German Physicians at Freyburgh, I had the opportunity of hearing Hegar and Freund prefer an almost absolute expectancy to Credé's method."

When uterine inertia exists not due to fatigue, ergot is our most reliable stimulant, in addition to external manipulation. Sometimes the contractions produced by its use are irregular—a portion being contracted, another quite lax, so that the placenta becomes partially or completely encysted, and is not liberated until the influence of the ergot has passed away, or the hand has been introduced to remove it. As a rule it is best to abstain from its use until the uterus is emptied, then a full dose may be administered to keep up contraction, the hand in the meantime being retained until its effects are manifest, the patient can then be left in safety, and much done to prevent puerperal fever.

REPORT OF A CASE OF EXOPHTHALMIC GOITRE.*

BY J. CAMPBELL, M.D., C.M., L.R.C.P., EDIN., SEAFORTH, ONT.

Mrs. B., æt. 45, a native of England, and mother of eight children, came to me with well-marked symptoms of Graves' Disease, especially as far as the eyes, heart and thyroid gland were concerned. She also complained of menstrual derangement, and was somewhat anæmic. She gave me the following history:—Some time previously one of her children got scalded, and she was very much frightened. Shortly after this the characteristic symptoms of Graves' Disease began to show themselves. She was an occasional visitor to my office at intervals varying from a week to a fortnight, and was treated with citrate of iron and quinine, and tincture of digitalis, and laterally with ergot—the latter drug being sometimes given on account of the menstrual flow being very profuse. During this time she took a trip to see her friends, and while away, all the symptoms became very much aggravated, and in addition, pronounced gastric symptoms developed themselves, and it is to these and the treatment of the disease in this particular case, that we wish to direct your attention.

In January, 1883, the gastric disturbance became marked and troublesome, the patient vomiting her food, medicine and everything she took. The result was, that before March she was reduced to a state of extreme emaciation—was in fact a mere skeleton, and her death was expected daily. At this time the only thing which would remain on her stomach was a spoonful of milk and lime-water. The tongue was red, denuded of epithelium, irritable and tremulous. The temperature at this time ranged from 100° to 101°F. This we attributed to the gastric irritation, or to what was probably gastric catarrh—though elevation of temperature is not an uncommon symptom of Graves' Disease. The pulse was weak, rapid and intermittent, ranging from 130 to 140. All kinds of food however mild, were rejected with the exception of milk and lime-water, and whey—that is milk with the curd removed. These were also frequently rejected. Murmurs were heard over all the valves of the heart, and the carotids were throbbing violently. It will be easily understood that when our patient

was in such a condition any specific medicines for the disease, administered by the mouth, were out of the question. Bismuth was the only medicine that was retained, and to this we sometimes added small doses of morphine.

Treatment—Under these conditions we resorted to the method of giving both medicines and nutrition per rectum. We gave tinc. of digitalis *M. xx.* and ext. ergot fld. *M. xx.*, at stated intervals as we deemed expedient, carefully watching their effects. At the same time we nourished the patient by rectal alimentation, giving Wyeth's preparation of beef tea, iron and wine, milk gruel, ordinary beef tea, chicken broth, etc. We also gave pepsine, lactopeptine, maltopepsyn, etc., as the case might be, with bismuth and milk and lime-water by the mouth, as we found the patient could stand it, our object being to restore the tone of the stomach so that it might resume the duties of its office at as early a period as possible. We found that the nutrient enemata were retained for fully two hours at a time, and the functions of the bowels were not materially interfered with. We also used galvanism along the pneumogastric nerve twice a day for five minutes at a time, but what part this had in bringing about the salutary result which followed, we are not prepared to say. Hammond reports cases of cure from the constant current alone. We have to state, that after a few days of this treatment the patient was able to take gruel, beef tea and broth by the mouth. After two weeks she was able to take solid food, and the medicine partly by the stomach and partly by the rectum, as the stomach would tolerate it. Under this treatment the pulse was reduced to 100 in a few days, and became steadier, the irritability of the stomach gradually passed away, and our patient in a few weeks was able to resume her usual diet. In about six weeks she was able to attend to her household duties.

Remarks.—I. In this case we ordered absolute rest, with mustard at intervals over the irritable stomach. We believe rest to be an excellent thing, as we found that all exertion increased the pulsations in the tumor—the throbbing of the carotids and the palpitation of the heart.

II. We believe in regulating the action of the heart. This is of primary importance because the aortic pulsations behind the stomach contribute very much to the irritability of that organ. This is done with digitalis and rest.

*Read before the Ontario Medical Association, June, 1884.

III. It is important to persist in the treatment, no matter how apparently hopeless the case may be—for no case could be more hopeless than this one, and success at last crowned our efforts.

IV. As to medical treatment, we are in favor of a combination of ergot and digitalis as we found her improve more on these drugs than she did on any other remedies—at the same time we would remark that the treatment should be modified and changed so as to suit the condition of the stomach which is apt to be very irritable in this disease. The idiosyncrasies of each patient should also be respected.

Present condition of patient.—She is quite well. There are no murmurs heard over the heart—the gland is normal in size—the eyes are all right—the arteries have ceased to throb and the heart no longer palpitates—altogether the patient may be considered cured in the fullest sense of that word, and it is not very likely that we will ever have the chance of treating her for this disease again.

Correspondence.

To the Editor of the CANADA LANCET.

SIR,—Will you be kind enough to publish the following in your valuable journal:—

Clinical courses for practical physicians, comprising all the special branches, are held every month at the Polyclinic in Berlin (Germany), 30 Carlstrasse. The courses begin with the first of each month, and last a whole month, lectures being given on every working day. The number of participants is limited to six for every course. Should more than six apply for the same course, an extra or parallel course will be organized.

To all those physicians wishing to perfect themselves in a special branch, the opportunity is given to serve three months as assistants in that particular branch. Those gentlemen having served as assistants will be allowed, in appropriate cases, to conduct the extra or parallel courses.

We intend to elevate the Berlin Polyclinic into an international medical school for the improvement of physicians of every country. In order to have the courses conducted in foreign languages, assistantships will be conferred upon foreign physicians.

Yours very respectfully,

LUDWIG LOEWE,
Surgeon General, Berlin Polyclinic.

BERLIN, June 13, 1884.

To the Editor of the CANADA LANCET.

SIR,—The July number of the LANCET has just come to hand, containing a report of the proceedings of the late sitting of the Medical Council. The Council proposes to introduce an amendment to the Medical Act, giving power to levy an annual tax of \$5 or commutation sum of \$20.

Now, let us see for a moment how large a sum will be raised by this tax on our hard earnings. It has been said that there are about 2,000 practitioners in the Province; $2,000 \times 5 = \$10,000$ annually, or \$40,000 at commutation rate, a very respectable income indeed!—apart from students fees. To what purpose is this nice sum to be devoted? The published report of the meeting does not state. Is it because the Council has found \$1 per annum uncollectable, that they are now to make it \$5, and by so doing serve two purposes, collect it easier, and increase the per diem allowance of members.

In the above remarks I merely touch on the matter to bring out the opinion of the profession at large, on the proposed amendment, ere it become law. A new election is approaching, let all those who are of the opinion that this money is quite as useful in their own pockets as it is likely to be in the coffers of the Council, bestir themselves to return candidates pledged against any such amendment; and also let them bring their influence to bear upon members of the Local Legislature for the same purpose.

Yours, &c.,

J. C. THOM, M.B.

Streetsville, July 10th, 1884.

Selected Articles.

THE ABDOMINAL TRACTOR AND ITS APPLICATIONS.

Dr. Henry Hartshorne, of Philadelphia, describes in the *Medical News*, March 1st, the use of this appliance:—

Some time since, I exhibited before the College of Physicians of Philadelphia a simple apparatus for abdominal traction; having especially in view its use as an aid in producing artificial respiration. My attention had been called to the incompleteness of the means commonly employed for that purpose, by their failure in two cases of drowning which I was so unfortunate as to witness at Atlan-

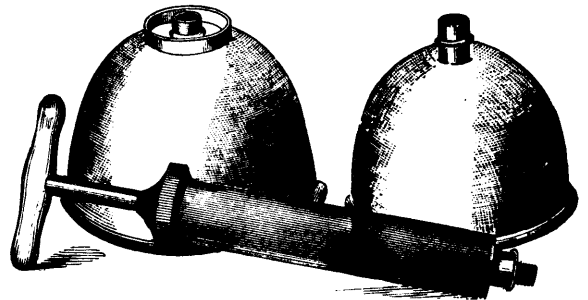
tic City, N. J. Easy experimentation on my own person satisfied me, as it may anyone, that Sylvester's method (the best in use) has very little *compulsory* power in expanding the lungs. One may, without the slightest difficulty, effect *expiration* while the arms are raised backward and far over the head, and *inspiration* while they are being brought down and pressed laterally against the ribs.

Considering the large amount of force readily exercised by the diaphragm in what is called "abdominal" as distinguished from "thoracic" respiration, it is reasonable to suppose that, in asphyxia from any cause, respiration may be prompted and assisted in renewal by *drawing the viscera away from below the diaphragm*. Such is the intention of the apparatus which I now propose to describe. It consists, first, of a tube or pump, not unlike, in shape and size, an ordinary enema syringe of the old fashioned kind; holding, however, somewhat less than a pint, for lightness; and having a cross-piece at the handle, for greater firmness in traction. It is constructed as a *two-valve* exhausting pump; so that, by drawing upon it again and again, a firm hold may be taken and kept.

Secondly, the tube is adjusted to a large cup or metallic bowl; designed to be applied to the abdomen. I have had two sizes of bowl made, so as to suit bodies of greater and less width and stature. One bowl is seven and a half inches across its outer rim, and five inches deep; the other is six inches across, and three and a half inches in depth. Either may be affixed to the exhausting pump for abdominal traction. My first thought was to use a *one-valve* pump, so as to *alternate* rapidly the elevation and depression of the abdominal walls; but it was soon found that, unless with a pump so large as to be unmanageable on account of its weight, the lifting of the viscera by one draught of the pump will not be sufficient to answer a good purpose. By trial on a living body, I find that the exhausting pump and bowl above mentioned will take a very strong hold of the abdomen, and exert a great lifting action upon its contents.

No case of drowning or other asphyxia having come under my observation since the instrument was constructed, I have had so far to content myself with its trial on the living body, with normal respiration, and some applications of it to dead subjects. The latter, however, on account of the bodies having been semi-solidified by preservative injections, were not satisfactory in determining what such traction may do towards effecting artificial abdominal respiration. This yet awaits an opportunity of fair trial. The least that may, in my judgment, be expected of it is, that it may render valuable aid to the Sylvester method; just as *counter-extension* does to *extension* in the reduction and treatment of fractures. The two methods may be combined with perfect facility and convenience.

More positive ground of confidence appears to me to exist, in regard to the application of a similar mode of abdominal traction to the treatment of *strangulated hernia* and some forms of *intestinal obstruction*. This is not a new proposition. Authors mention it as having been put in practice by Anton Nuck, the eminent anatomist and surgeon, professor in the University of Leyden, near the end of the seventeenth century. It is said to have been a method sometimes in use by Russian practitioners; and allusion to it was made in an English medical journal within a year or two, the reference to which has recently escaped my search. Slight reflection will show that the reduction of a femoral or inguinal (of course not an umbilical) hernia must be promoted by forcibly abstracting the mass of the contents of the abdomen in a direction opposite to



Scale, one-fifth-inch = 1 inch.

that of the protrusion. This is the *rationale* of the common expedient of raising the patient's heels high above his head, which I have known to be quite effectual in practice.

Also, it is evident that if, in a case of *intussusception*, we could seize either the received or the receiving portion of the gut, and draw upon it, we should almost certainly relieve the invagination. While this is not *sure* to be done in every case by abdominal traction, it affords a greater *probability* of such a result than any other mode of treatment without laparotomy, and hence it is worthy of careful trial. My apparatus was made by A. H. Wirz, of Cherry Street, Philadelphia, and will be at the service of any practitioner who may desire to use it in fitting cases.

TREATMENT OF GASTRIC ULCER.

At the Société Médicale des Hospiteaux, April 21st, there was an interesting discussion on the treatment of ulcer of the stomach.

The discussion was opened by Dr. Debore, who remarked that the ordinary way of treating simple gastric ulcer by an exclusive regimen of milk and lime water or milk and Vichy water often fails. One of the inconveniences attending this treatment is that large quantities are required to sustain the

patient, from which irritation and even dilatation may result. The attempt has been made to give an equivalent in milk in smaller volume by using milk powder or condensed milk, but these preparations had not been successful. The same may be said in regard to meat powders so much employed in "gleavage" or forced feeding, which are ill borne in gastric ulceration, and often occasion vomiting. In view of this want of success, Debore asked if it were not possible to find some other regimen, which while nourishing the patient, would suspend for a time the action of the stomach and suppress the secretion of gastric juice, whose injurious influence on the march of ulceration is universally conceded. Certain authorities have lauded the benefits of enemata of peptones, substituting rectal alimentation for alimentation by the stomach, but this does not allow the organism to be sufficiently nourished, especially if the enemata be depended on for a long time.

In view of the impossibility of suppressing the secretion of gastric juice, Debore has endeavored to modify its acid reaction by neutralizing it. The acidity of the gastric juice is so characteristic and so necessary to stomach digestion that one may truly say that gastric juice when rendered alkaline has lost all its properties. There is equal reason to believe that it is to this acidity that the gastric juice owes its power to prevent the healing of the simple ulcer. The problem then consists in finding how to so neutralize the gastric juice that azotized food may be given to patients in such a way that the digestion shall be accomplished not in the stomach, but in the small intestines. With this end in view Debore administered to his patients a certain quantity of meat powder associated with a large dose of bicarbonate of soda; twenty grammes, for instance, of the powder and ten grammes of bicarbonate at each meal time. Several trials assured him that the theory which he had adopted was correct. On withdrawing, for example, by a flexible tube the contents of the stomach in patients to whom he had previously given the mixture of meat powder and soda, he ascertained that there was no trace of peptones. He treated in this manner four patients affected with ulcer of the stomach. In all these the intolerable pain which they were suffering and the vomiting disappeared.

At the present time Dr. Debore relies on the following procedure: During the first few days he washes out the stomach to free it of acid matters it may contain. This operation has never in his practice provoked hematemesis, and is regarded as safe. He uses a soft flexible tube, whose extremity if it hit against the ulcer could do no harm. In the next place he administers to his patients three times a day, twenty-five grammes of powdered meat suspended in milk and mixed with ten grammes of bicarbonate of soda. This mixture is administered at meal time and by means of the stomach tube, as

it is very disagreeable to take in the ordinary way as food. The patient is given, besides, a quart of milk a day, rendered alkaline by lime water. The patients have been confined to this diet for several months at a time, and this treatment has never given rise to any of the symptoms which characterize what has been called the 'alkaline cachexia.'

Dr. Jaccoud moreover affirms that he has been able to give to certain patients for a very long time twenty grammes a day of the bicarbonate of soda without the least harm resulting. Charcot has also given as much as thirty to forty grammes a day without noting any cases of cachexia. If it is well established that the bicarbonate of soda long continued does not produce cachexia, it is no less true that its employment is attended with certain inconveniences. Besides its disagreeable taste, its action on the stomach is somewhat irritating, and by its decomposition under the influence of the digestive secretions it sets free considerable quantity of carbonic acid, which causes painful eructations. Another reason which has prompted Debore to seek a substitute for the bicarbonate in some other alkali is, that the former by reason of its great solubility may be too speedily absorbed, and consequently fail to sufficiently neutralize the gastric juice. He has tried to replace the soda with lime water, saccharate of lime, and magnesia. All these have their advantages and disadvantages, and he now uses that combination which has given the best results. At each meal, which consists of twenty-five grammes of meat powder well stirred into milk, he adds a small package containing a mixture of about equal parts of calcined magnesia and bicarbonate of soda. He also orders the patient to drink each day a quart of milk to which is added one gramme of saccharate of lime.—*Boston Med. and Surgical Journal.*

THE ACTUAL CAUTERY IN DISEASES OF THE JOINTS.

Mr. Henry Smith, F. R. C. S., professor of surgery in King's College, in the *Lancet*, May 11th, gives his views on this subject. He states that, whilst in former times the actual cautery had been employed to a considerable extent by surgeons, it had gradually fallen into disuse, in consequence probably of the seemingly cruel and painful nature of the operation, so graphically described by the late Sir William Fergusson in his "Practical Surgery." Since, however, the introduction of anæsthetics, by means of which this potent remedy could be applied without the horrors formerly accompanying it, the actual cautery had been resorted to without scruple, and the pupils attending his class had had recently several opportunities of witnessing the extraordinary benefits produced by its application. He desired to call attention to

two other instances of disease of the knee-joint, occurring in females, where the effects of one application of the actual cautery had been remarkable. In one of these cases the disease had been of long standing, the joint being in a state of chronic inflammation, the chief symptoms being severe pain on any attempt to move it and some swelling. After the employment of various measures, which were of little use, the actual cautery was freely applied, with almost immediate relief and ultimate cure. In the other case, that of a woman who had been suffering from chronic inflammation of the femur, which had implicated the knee-joint, and resulted in great enlargement of the bone and ankylosis of the joint, attended with most severe pain and total loss of use of the limb, no treatment seemed to be of any avail until the cautery had been freely used over the end of the femur and knee, and those present had been able to witness the effect of this agent, which resulted in immediate and permanent relief. In another case which had been before their notice, that of a young woman with disease of the hip-joint, the symptoms denoting progressive disintegration of the articulation, the usual treatment was adopted—namely, rest, extension, and local applications,—but although the acute symptoms were relieved, intense pain persisted, especially at night. The actual cautery was applied, and the effect was to mitigate the pain within a few hours and ultimately the course of the disease was arrested. Another striking instance of the good results produced by the cautery had recently been under their notice. It was the case of a poor woman who had suffered for some time from disease of the spinal column in the dorsal region. There was some curvature, very severe pain on pressure over three of the vertebræ, and latterly the woman had lost control over the bladder. After she had been kept at rest for some little time, and the more urgent symptoms had been relieved, he applied the actual cautery freely over the diseased vertebræ, and at the same time administered mercury internally so as to produce gentle ptyalism. The effects were almost immediate; pain was relieved within a few hours, the bladder symptoms were removed, and in the course of six weeks the woman left the hospital convalescent, having been previously fitted with a Sayre's jacket. In an instance also of disease of the ankle-joint in a strumous lad, where the features of the case pointed to mischief in the bone rather than in the synovial membrane or cartilage, he was on the point of amputating the foot, but before doing so he determined to apply the cautery freely. This was done under ether, and with such good results that the patient left the hospital with a stiff ankle but a serviceable foot.

Mr. Smith said he was anxious to draw their attention to one important point in connection

with this means of treatment. It should not be used in instances where acute inflammatory action existed; it would be necessary to abate the acute symptoms before using the cautery. In all the instances alluded to this had been done, and the actual cautery was then applied; in fact, as he had often pointed out to the pupils in the wards, it was in those instances where chronic inflammation was going on, threatening progressive disintegration of the joint structures, and especially those instances where constant pain was a notable symptom, that the actual cautery was such a powerful ally to the surgeon; and he strongly advised its use in such cases before resorting to more severe proceedings.

CREASOTE IN DISEASES OF THE AIR PASSAGES.—Dr. Pick, of Coblenz, says (*Deut. Med. Wochen.*), that the action of creasote in consumption, recently much extolled by the French (Bouchart and Gimbert), as well as the successful experiments of Frantzel and Curschmann, induced him to employ this much discredited remedy in a series of cases, and to make a summary of the results. Creasote was given by the author both internally and externally. For external use he employed a mask which, being a modification of Hausmann's apparatus, could be worn by the patients without much difficulty, and even during the night. The creasote was dropped on cotton-wool in the mouthpiece, and was inhaled by means of deep inspirations. The apparatus has the advantage over Hausmann's that the nose remains free, and the troublesome irritation of the nasal mucous membrane is avoided. Dr. Pick gave the creasote internally either with cod liver oil, or according to the French formula: *Kreasoti, ʒ, tinct, gent., ʒo, spirit, vini rectif. ad., ʒ5o, vini Malag. ad., ʒ1,000.* The drug was well borne by the patients both internally and in the form of inhalation, and Dr. Pick speaks of one case where there was a decided antipathy to cod liver oil, but where it was taken quite well in the above-mentioned combination. Gastric disturbances or toxic effects were seldom perceived. Among the cases treated by the author was one of croupous pneumonia passing into gangrene, thirteen of tuberculous infiltration in persons with hereditary taint, and one of sudden hæmoptysis after long-standing catarrh of the lung. The results were very good in all sixteen cases; after a short use of the drug, diminution of the cough, considerable reduction of temperature, improvement of the general health, and decrease in the expectoration quickly ensued; and the hæmoptysis mentioned above, which had not yielded to a fourteen days' treatment with ergotin, was speedily checked by a few hours' inhalation of creasote. This may, perhaps, be attributed to the styptic action of the creasote, which, besides its disinfect-

ing and antipyretic properties, coagulates albumen and contracts the capillaries. A lasting effect was, however, observed to follow the employment of creasote only in catarrh of the apex, or in commencing infiltration. In advanced phthisis, where extensive disintegration of tissue with great diminution of strength was already present, the only lasting result was the alleviation of isolated symptoms. Dr. Pick lays particular stress on the quality of the creasote, and attributes its actions only to that got from beech-wood tar, in contradistinction to the kind more frequent in commerce, obtained from coal-tar, whose qualities, so far from being useful, only set up gastric disturbance.—*Med. & Surg. Reporter.*

WATER IN THE DIETARY OF YOUNG CHILDREN

—In a communication to the *New York Medical Journal* (September 29), Dr. Remsen, of the Nursery and Child's Hospital, calls attention to the general ignorance which prevails as to the necessity of furnishing infants with a sufficient quantity of water, especially in hot weather, and whether they are brought up at the breast, or artificially. For want of this, the fluid portion of any food introduced into the stomach is quickly taken up, leaving the solids too quick to be easily digested. They ferment and produce indigestion and colic, together with diarrhoea. As a consequence of the thickened state of the blood thus produced, excretion of sweat is arrested, and a state of collapse and hyperpyrexia is developed. In warm, dry weather, babies will drink cool water every hour or oftener, if it is, as it should be, offered them. The earliest sign of the water in the system being below its normal standard is a slightly depressed condition of the anterior fontanelle. This may be present in children apparently in perfect health, yet in whom a slight increase of temperature or the deprivation of the breast for a few hours, may give rise to sudden hyperpyrexia. Attention is, however, usually first aroused by the fretfulness of the child, a moderate rise of temperature and pulse, a hot, dry skin, and a constant desire to suck. If a free supply of water be given, and nursing restricted in frequency, these symptoms will often disappear completely and quickly, but if not, collapse will soon come on. The temperature ranges from 105° to 106° F., or higher; the pulse is small and thready, numbering from 180 to 200; the skin of the body is painfully hot, while the extremities are cold; the features are pinched and sunken, with the eyes half-closed and the pupils contracted; the fontanelle is depressed, the hands are tightly shut, the respiration is hurried and irregular, and consciousness seems abolished. A child in this state will swallow water with greediness and the utmost pleasure. The treatment adopted at the Nursery has been wrapping the patient in a wet sheet, applying cold to the head, and giving as

much water as can be swallowed. The results have been very satisfactory, the child becoming quiet, and even going to sleep, while all the threatening symptoms rapidly subside. "The attention given to this point as a prophylactic measure has been followed by a diminished rate of mortality, and a marked reduction in the number of gastric and intestinal complaints. If more care was taken to give children a proper amount of water, and restricting their hours of sucking or feeding, the mortality due to hot weather would decrease, and less would be heard about the troubles of teething."

PATHOGNOMONIC SIGNS OF DISEASE.—Dr. E. G. Janeway, of New York, read a paper before the American Medical Association (*Louisville Med. News*), on "the danger of relying too much upon so-called pathognomonic signs of disease."

It is often a very brilliant thing, he said, to make a snap diagnosis, but it is not safe to do so; for many so-called pathognomonic signs of special diseases are found, on closer inspection, not to be so in reality. For instance, optic neuritis, conjoined with headache, used to be considered as a pathognomonic sign of cerebral tumor. This is not so. We know that it only means that there is some increased pressure in the brain. You must also eliminate Bright's disease of the kidneys. Volitional tremor is thought by some to be very characteristic of multiple sclerosis, but a similar condition is observed in patients who are under the influence of metallic poisons, such as mercury, and also in those who have partaken freely of alcoholic stimulants. We often find considerable difficulty in cases of coma, in endeavoring to decide whether it is of hemorrhagic or uremic origin. The variations in the temperature of the body are here a valuable help in our investigation; but they are not sufficiently certain to found a positive conclusion upon. The existence of heart murmur, or the absence of it, does not positively settle the point as to whether there is an embolus in the brain or a hemorrhage; and albumen in the urine is often associated with these lesions. The author went on to consider cases—referring to heart and chest diseases. It is not wise to rely too much upon these signs, but to take the whole bearing of the case in making the diagnosis.

Dr. Frank Donaldson, of Baltimore, in opening the discussion, spoke of cardiac murmurs. He had known of cases in which the autopsy showed marked stenosis of the mitral orifice, which had presented no murmur during life.

Dr. Janeway said that in some cases of pneumonia of slight grade, bronchial breathing is not present, and he had seen people much misled by it. In regard to mitral stenosis he thought that it could sometimes be detected by a long first sound with a slightly blubbery character, even when there was no murmur.

A NEW METHOD OF TREATING PLEURISY.—Prof. Picot (of Bordeaux), describes a new method of treating acute pleurisy when it has been found necessary to puncture. It has been his custom after thoracentesis to apply immediately a large blister over the region, to prevent, as far as possible, any re-formation of the fluid. But, in order to produce a more powerful revulsion, his assistant, Dr. Cayla, after evacuating the fluid as completely as possible, covers the affected region with cauterized punctures made by the thermocautère. These cauterizations are practiced immediately after the evacuation; they are very numerous, but a short distance from each other, and their application is followed by a powerful revulsion over the whole of the thoracic region corresponding to the diseased pleura. This method has been used several times without accident. The patients, men and women, bear it well, and the punctures are made with care that the cauterization shall not include more than half the thickness of the derm.

Mr. Picot cited in support of his method a number of favorable cases, in all of which there has been no return of the fluid, and a cure was effected in a few days. One case was particularly interesting—it was a case of acute miliary tuberculosis, with a considerable accumulation of fluid on the left side which required thoracentesis; 2,050 grammes of fluid were evacuated, and the cauterization was performed as usual. There was no return of the fluid to be detected by physical signs, and the patient dying some little time after by the progress of the tuberculosis, the autopsy showed that the pleura from which had so recently been extracted a large quantity of fluid, no longer contained any traces of it.—*Four. Am. Med. Association.*

IODIDE OF POTASSIUM IN PNEUMONIA.—Regarding pneumonia as a general disease with local manifestations, Dr. Schwarz recommended the use of iodide of potassium in six grain doses every two hours, at the same time applying an ice-bag to the chest over the seat of the pulmonary lesion. All his cases thus treated recovered, some of them within two days. Dr. Gualdi (*Gazzetta Medica di Roma*, May 15, 1884) has similarly treated a number of cases, and reports most excellent results. He formulates the following conclusions based upon his experience with this mode of treatment: 1. Schwarz's method of treating pneumonia gives good results. 2. These results are even better in the case of children than in that of adults. 3. The treatment should be instituted at the beginning of the disease, for when commenced at a later stage the cure is less rapid and satisfactory. 4. The action of the iodide is exerted upon the fever and the general disease, and not upon the local lesion. 5. The iodine and the potassium become separated within the organism and each of them exerts a

special effect. 6. The action of the ice is upon the local condition. It is useful in the period of pulmonary congestion, but injurious in the stage of hepatization.—*Med. Record.*

PALATABLE PRESCRIPTION.—The best prescription containing iodide of potassium is the following:—

R Potassii iodidi..... ʒ ij.
Tinct. aurant. cort. recentis. ʒ ij.
Ext. glycyrrhiz. rad. fl..... ʒ i.
Syr. simplicis..... q. s. ad. ʒ iij.

Of this each teaspoonful contains five grains, and the iodide is so perfectly disguised that persons who have been accustomed to its use fail to recognize its presence. For this combination I am indebted to Mr. Julius H. Eichberg, the skillful and efficient druggist of the Cincinnati Hospital. The vehicle is eligible also for the administration of the bromide of potassium. A syrup of coffee is highly recommended to hide the taste of the iodide—fifteen grains to the ounce. The same vehicle can be used for the bromide, except in cases where the stimulant effect of coffee is to be avoided.—*Cin. Lancet and Clinic.*

ANTISEPTIC ABSORBENT SPONGE—Mr. Sampson Gamgee showed before the Medical Society of London, April 21st, an artificial antiseptic sponge of his invention. A small capsule, containing eucalyptus or other antiseptic, was enclosed in absorbent cotton; outside of this was a layer of cocoanut fibre, and outside of this more absorbent cotton-wool; the whole being enclosed in gauze. When about to be used the capsule could be broken by a blow of the fist, and the absorbent cotton become permeated with the antiseptic. Mr. Gamgee said that these sponges could be made at a very trifling cost, and he hoped they would come into use as a cheap substitute for ordinary sponges. They possessed this great advantage, that when required for use they were certain—however long they might have been kept—to be antiseptic; and, being so cheap, they might always be destroyed after being used.

TREATMENT OF CONSUMPTION.—In the *Medical Press and Circular*, June 8th, Dr. William H. Pearse says he is continuously prescribing a combined muriatic acid, quinine and arsenic treatment to a large number of those who are of the phthisical type, but whose cases have not advanced beyond the indigestion of bodily debility stages, and, with rare exceptions, with marked benefit. His general directions to such a patient are an out-door life, all and any food to which his fancies incline him, and which include onions and pickles; also cod-liver oil, and the following mixture three times a day, after meals: R. Cinchonid. sulph., gr. xx;

acid muriat. dil., ʒ v ; liq. arsen. hydro., m. c ; aq. maris., m. lxxx ; mangan. sulph., gr. xx ; infus. quassia, ad ʒ x. Twenty doses. The improvement is steady and regular, though, of course, rather slow.

INHERITANCE AS A CAUSE OF DRUNKENNESS.—There is no doubt that *inheritance* has much to do with a thirst for strong drink, especially if we can bring the case down to a fine point, and find the child was begotten during the time either parent was suffering from alcoholism. As an example of this theory, I have a well authenticated case of inherited inebriety now under treatment at the "Home"—a gentleman, the third son of his parents, who is sorely afflicted with alcoholism. He tells me that himself and younger brother (the fourth son) have always, almost from infancy, been too fond of liquors, while his two elder brothers are strong total abstinence men, and never touch liquor ; they are also men of wealth, while the younger, who are inebriates, are poor. He tells me that he has often heard his mother say of his father, that during the first five years of their married life, he (the father) did not use liquor in any way, and would not associate with men who did. But about the fifth year after their marriage, about the time the third son was begotten, the father had many business reverses, took to drink, and died after being an habitual drunkard for several years.—*Report of Dr. F. G. Jewell to Cal. State Medical Society.*

TREATMENT OF ACUTE ALCOHOLISM.—The following mixture is in use in the Albany Hospital, *Med. Annals*, for the treatment of the effects of acute alcoholism, to relieve nervous excitement and insomnia :

℞	Tr. opii. deod.,		
	Ext. hyoscyam fl.,	aa	ʒ j,
	Chloral hydrat,		
	Pot. bromidi,	aa	ʒ j,
	Tr. capsici,		ʒ ss,
	Tr. aconiti rad,		m v,
	Aqua menthæ pip., ad.		ʒ iv. M.

Sig.—Two tablespoonfuls and repeat in four hours if sleep is not produced.

A BAR TO MALPRACTICE SUITS.—A case tried not long since in one of the Western States brought up the question whether a successful suit by a physician for the value of his services did not bar any subsequent suit by the patient for malpractice, and it was held that it did. The first suit was litigated to decide the point of the value of the services, and although the charge of malpractice was not directly made as in the second suit, yet if there had been any malpractice there would, of course, have been no value to the services. The failure

to make the charge in the first suit was held to forever prevent its being raised afterwards.—*Med. and Surg. Reporter.*

SUCCESSFUL ABDOMINAL SURGERY.—Dr. Robert Battey, of Rome, Ga., (*Virg. Medical Monthly*) reports eighteen consecutive cases of ovariectomy performed by him, all successfully. He employed a modified antiseptic treatment. He insists on having the patient under his immediate charge subsequent to the operation, and concludes as follows. "The friends of a patient are by no means the best nurses for an ovariectomy case. Whilst in England I was assured that no operator who had any character to lose would venture to stake it upon an operation to be done under such disadvantages. They all require their cases to come to them, and put them into the hands of their trained nurses."

SALICYLATE OF SODA IN PHELGMASIA ALBA DOLENS.—D. Miguel Vigar (*La Correspondencia Medica*) says that of four cases of phlegmasia alba dolens which he has had occasion to treat, in the first with the topical remedies usually employed he obtained no result attributable to the medication, since the patient remained in bed two months ; and that in the other three, having employed the salicylate of soda, in the dose of four grammes (60 grains) a day, he noticed in all, from the first day of taking the medicine, notable diminution of the fever and œdema. Neither of these patients passed more than twenty-one days in bed, and no œdema, nodosities, or thickening of the lower limb remained.—*London Medical Record.*

DIARRHŒA MIXTURE.—

℞	Tinct. catechu,	ʒ ij,
	Oil peppermint,	M. vj,
	Ext opii liquidii,	M. xiiij,
	Mistura cretæ ad.,	ʒ iv. M.

Sig.—Teaspoonful every time the bowels are moved.

A NEW TRACHEOTOMY TUBE.—Dr. Hendrix, in the *St. Louis Med. Journal* for August, describes a tracheal tube of his invention which he thinks has several advantages over the common tube, especially in the cleansing and changing. It is of ordinary tracheotomy shape with a short external tube intended to reach only through the tissue down to the trachea but not into it. Through this the long tube with the long fenestra is made to slide and is held by a friction clamp, confined by a screw in such a way as to be removed gradually, and as the screw tightens the clamp to the tube it may be retained at any depth required. It obviates the necessity of having a skilled person remaining constantly with the patient.

THE CANADA LANCET.

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Criticism and News.**

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CANADA MEDICAL ASSOCIATION.

We trust our readers and the profession generally will remember that the meeting of the Canada Medical Association, as noticed in our May number, will take place this year in Montreal, on the 25th, 26th, and 27th of August, under the presidency of Dr. Sullivan, of Kingston. The interest in this meeting will be greatly enhanced by the presence of the members of the British Association for the advancement of science. Their meeting begins on the 27th, and several of the members have expressed their intention of being present at our meeting. Dr. Tait, of Manchester, has promised to read a paper on "Abdominal Surgery." We trust the members of the medical profession throughout the Dominion will be present in large numbers. This will probably be the only opportunity for some years to come, of seeing and hearing many of the leading scientific men of Great Britain. Certificates entitling members to return tickets at a fare of one and one-third—good from August 22nd to September 5th—may be had on application to Dr. Osler, General Secretary, Montreal, or to any of the local secretaries, viz., Drs. Bray, Chatham; Bell, Montreal; Coleman, St. John, N. B.; Black, Halifax; and Betts, Winnipeg. Members leaving Toronto by the Saturday boat at 2 p.m., or the Sunday evening train will reach Montreal in time for the opening session on Monday the 25th, at 10 a.m. The local committee has secured the Synod Hall, in connection with the Cathedral, as the place of meeting.

RABIES INOCULATION.

It is now about four years since Pasteur commenced his experiments and researches into the nature of hydrophobia, the results of which have been recently given to the public. Although the profession and scientists generally may not be very sanguine as to the grand results which this distinguished *savant* claims, yet enough has been advanced to warrant the French Government in appointing a commission of scientific men of indisputable authority to investigate the matter and to test the value of the interesting experiments instituted by Pasteur. The names of Vulpian, Villemin, Bert and Bouley are a sufficient guarantee of the character and reliability of the proposed enquiry. Pasteur in the course of his experiments hit upon the expedient of inoculating the brain of the animal with the virus of rabies. The skull is trephined with a small instrument and the virus introduced. By this method the action of the virus is much hastened, the effects being manifest in a few days, instead of from twelve to fourteen days. In fact Pasteur thinks he has in this way demonstrated that rabies is a malady of the brain. In the course of his experiments he found that the virus, after having passed through three monkeys in succession, becomes so attenuated that its introduction into a dog is harmless. But when the virus is passed through the rabbit and guinea-pig in like manner, it increases in virulence, becoming more virulent than the virus of the rabid dog. The plan proposed is to take the virus from a rabbit dying after inoculation, and inoculate this successively in other rabbits, and finally in the dog, which is thus rendered refractory to the rabies.

The test experiments proposed by Pasteur consist, first, in causing twenty unprotected dogs and twenty "vaccinated" dogs (presumably protected thereby from the poison) to be bitten by dogs in a rabid state; and, second, in artificially inoculating with the virus of rabies two other sets of twenty dogs, respectively vaccinated and unvaccinated. "The twenty vaccinated dogs," says Pasteur, "will resist the poison, and the other twenty will all die of madness."

The importance of this discovery, if true, cannot be over-estimated, but we must not be too ready to express unqualified approval and endorsement of Pasteur's views. It will be observed that he

uses, contrary to what one would have supposed, the virus from rabbits, and not the attenuated virus from monkeys. Furthermore, he does not propose to apply the virus for the protection of human beings, although we have read in the press that persons applied to him for inoculation. The experiments so far do not seem to us convincing, and we await with considerable curiosity, mingled with not a little anxiety, the report of the commission. The result of these trials can hardly fail to be largely decisive of the question one way or the other, and will be an unequivocal illustration of the value of experimental pathology. Meantime, we agree with the man who said that the best way to prevent hydrophobia was "to shoot the dog before he went mad."

THE CHOLERA EPIDEMIC.

"Eternal vigilance is the price of liberty." But little change need be made in the wording of this well known aphorism in the science of government to make it applicable to sanitary science. Eternal vigilance is the price of health. This is not only true in the sense of the life of the individual, but it is also true as regards the life of the whole people. Vigilance in sanitary matters is at all times commendable, both on the part of nations and individuals. But this is more especially true at a time of more than ordinary danger—at a time when the air is portentous of dire calamity in the near future. Such a time is the present. Cholera, that dreaded scourge of the human race, is now reveling and gambolling amongst its helpless victims along the coasts of the Mediterranean Sea. At the present writing southern France has been reached, and different centres of population are experiencing all the horrors of the plague. Where it will next appear no one can tell, for that depends on numerous modifying circumstances. It is just possible, owing to the intimate relations existing between nations, the multifarious channels of trade and travel, and the rapid movement of ocean steamers, that cholera may appear in Quebec or New York before it does in Paris. Ships will be permitted to leave infected ports, and no matter how careful health inspectors may be at such ports, there is always the dread possibility that an outgoing vessel may become a veritable messenger of death to thousands resting in self-security at a

point thousands of miles away, and this, too, in spite of the strictest quarantine. Perhaps no enemy of our race so nimbly and stealthily eludes the eye of the sentinel as that mysterious something whose terrible operations we call cholera. The knowledge of this fact affords an additional reason for vigilance on the part of all concerned.

An invasion of cholera is a thing so terrible, that governments would be quite justifiable, nay, are morally bound, to exercise care to the extent of embarrassing commerce and inconveniencing travel, to a degree not hitherto practised. A threatened wholesale slaughter of the best, as well as the worst, of a people, is something so inexpressibly appalling and calamitous that, to avert it, no material consideration should stand in the way, for a single moment. The French government, by placing itself between the dead and dying, and the living, has set an example worthy of all praise. By voting a liberal sum for the purposes of relief and protection, the French legislature only places itself in accord with the sentiments of the times, but that in no way detracts from the wisdom and expediency of the act, while it furnishes to other nations an example worthy of imitation.

We notice with pleasure that the United States government is instituting precautionary measures, having issued strict orders to its consuls at all points of danger, especially regarding vessels embarking for that country, and also by the adoption of measures of protection at home. We trust the Dominion government is not asleep and that already vigorous measures are being matured to protect our people from impending calamity, so far as human effort is capable of so doing. Not only does this duty devolve upon the central government, but also upon our Provincial governments, and upon all other authorities or corporations having the power to enforce sanitary laws. It is needless in this enlightened day to point out what measures are called for in this emergency. We may mention, however, that the work naturally divides itself into two parts—general and local. Quarantine, of course, falls to the province of the general government, and that implies a good deal. The Provincial governments have the power to enforce sanitary regulations, and in case of an invasion of the disease, may institute measures calculated to prevent its spreading. But no government will engage in the work of drainage, or

the cleansing of streets. This is the business of municipal authorities. It is well always to remember that, while the best sanitary conditions do not secure complete immunity from this, or any disease, yet cholera specially delights to dwell and revel amidst general squalor.

Dr. Covernton, chairman of the Ontario Board of Health, strikes the key-note in his letter to the local press, when he says that "thorough inspection and disinfection should be made imperative at the various ports of entry." If to this be added complete isolation of all cases that occur, there need be no fear of the spread of the disease. A pamphlet on cholera was issued by the Ontario Board of Health last year, giving full instructions as to prevention, etc., and it would be well at this juncture to republish it. So far as Toronto is concerned, we have a most able health officer, and an efficient Board of Health, and if the authorities supply the requisite funds, a thorough purification of lanes, cesspools, drains, slaughter-houses, etc., and the removal of every variety of filth may be confidently relied upon. We trust that other cities and towns in the Dominion will do likewise.

JEAN ETIENNE LANDRY, M.D.

The death of Dr. J. E. Landry, of Quebec, is announced in *Le Canadian* of June 18th. He was born at Carleton, Que., in 1815, and received his early education at St. Anne. He studied medicine in the Marine Hospital for four years, and received his license in 1840. After graduation he practiced a few years at Point Levis, and afterwards returned to Quebec. In 1854 he was appointed professor of surgery in Laval University, a position which he held for upwards of a quarter of a century. He also held the position first of surgeon, afterwards of consulting surgeon to the Hotel Dieu, the Marine Hospital, and other institutions in Quebec. He had since 1880, however, retired in great measure from active duty. For a short period he was surgeon to the 11th and 24th British regiments. Among some of the foreign honors bestowed upon him may be mentioned the following: Knight Commander of the Order of St. Gregory and St. Sepulcre, Corresponding Member of the Anthropological Society of Paris, Honorary Member of the Society D'Emulation, etc.,

etc. He had obtained great eminence in his profession and was highly esteemed by his confrères and the public generally.

AUDI ALTERAM PARTEM.—In another column we give place to a letter calling in question the proposed amendment to the Medical Act, with reference to the annual fee to be imposed on members of the College of Physicians and Surgeons of Ontario. We are of course quite willing that both sides shall have a hearing. The object of the contemplated amendment to the Medical Act, is to get over the difficulty and expense of collecting a small annual assessment fee. No doubt most members will avail themselves of the proposed commutation rates. This will not, so far as we can see, cause any hardship, inasmuch as those who have paid their annual dues regularly in the past, will require to pay only the difference between what they have already paid into the treasury, and \$20. They are thus relieved of all worry or anxiety about remitting a small sum every year. Many will regard this as a boon, so that we do not for a moment believe there will be any serious opposition to the scheme. Space will be freely given, however, to any who may desire to discuss the question on its merits. We have no objection to hear the pros and cons.

NITRITE OF AMYL IN EPILEPSY.—The editor of the *Alienist* says one method of treatment is to put a drachm of amyl nitrite in a two inch long, three drachm vial, placing a small sponge between the liquid and the cork, instructing the parent or attendant to keep the vial always accessible in the pocket, and upon the first sign of approaching spasm to withdraw the cork and apply to the nostril a sufficient time to slightly suffuse the face, and adopt the same method shortly before the time of the expected paroxysm, and several times a day when convulsive recurrences are frequent. He has had the most satisfactory results, with old and young by this method. The dose of the amyl nitrite *should be regulated by the effect produced rather than quantity, provided the inhalations are very brief. A few seconds only for an inhalation, and not oftener repeated than every six hours.*

"GROSS" MEMORIAL PROFESSORSHIP.—The Alumni Association of Jefferson Medical College has

inaugurated a movement to secure, in some medical school, the endowment of a Memorial Professorship, to be designated the S. D. Gross Professorship of Pathological Anatomy. The profession at large, the personal friends of the late Professor Gross, and others who may be interested in such an object, are cordially invited to participate in this recognition of the services and reputation of the late Professor Gross. Contributions may be sent to Dr. R. J. Duglison, Box 1274, Philadelphia.

LOTION IN SEVERE CONTUSIONS.—The following formula of a lotion is very highly recommended by Dr. Hewson, in the *Medical Times* in cases of severe contusion. He has had large experience in the treatment of such wounds among the lumbermen in Texas, and has found it of great service :

R Sodæ hyposulphit..... ℥iv.
 Acid carbol. crystal..... ℥ss.
 Glycerini ℥ij.
 Aquæ Oj.—M.

A cloth well saturated with the lotion to be kept constantly applied to the part.

NOMINATION FOR ONTARIO MEDICAL COUNCIL.—The members of the Huron Medical Association have unanimously nominated Dr. J. Campbell, of Seaforth, as a candidate to contest the territorial division of Malahide and Tecumseh at the election to be held in May next. We congratulate Dr. Campbell upon this expression of confidence from his worthy confrères, and should he be elected we feel sure their confidence will not be misplaced, as he will undoubtedly make a most able and energetic representative.

NITRO-GLYCERINE IN EPILEPSY.—This remedy has been in use in the treatment of epilepsy during the past few years with varying results. Dr. F. W. Campbell, of Montreal, in some remarks before the Medico-Chirurg. Society, reported in the *Can. Med. and Surg. Journal*, claims to have had continued good results. Even when it did not cure, it had the effect of diminishing the force and frequency of the attacks. He administers one drop of a one per cent. solution three times a day.

GYNÆCOLOGICAL.—The following caustic criti-

cism is from the pen of Dr. Clifford Allbut :—He says : “A neuralgic woman is either told that she is hysterical or that it is all uterus. In the first case she is comparatively fortunate, for she is only slighted ; in the second she is entangled in the net of the gynæcologist, who finds her uterus, like her nose, a little on one side ; or, again, like that organ, is running a little, or is as flabby as her biceps, so that the unhappy viscus is impaled on a stem, or perched upon a prop, or is painted with carbolic acid every week in the year, except during the long vacation when the gynæcologist is grouse-shooting, salmon catching, or leading the fashion in the Upper Engadine. Her mind thus fastened to a more or less nasty mystery, becomes newly apprehensive and physically introspective, and the morbid chains are riveted more strongly than ever. Arraign the uterus and you fix in woman the arrow of hypocondria, it may be for life.”

PROFESSIONAL ADVERTISING.—Our confrères down by the sea are not to be outdone in the matter of advertising. An ex-president of the Nova Scotia Medical Society (by the way presidents and ex-presidents of societies, are not the smallest sinners in this respect,) who spoke so strongly a year ago about “levelling up” (sic.) the profession, occupies half a page in announcing his “Private Infirmary” in Belcher’s *Farmers’ Almanac* for 1884. (See advertising page 24). This same gentleman has also recently issued a circular on the eve of his departure for Europe, in which he modestly states he expects to visit several of the larger special hospitals of England, Germany, and France, and to bring back such increased store of practical knowledge, together with new surgical apparatus, as may be of use to those who may seek his services.

DIAGNOSIS OF CANCER OF THE STOMACH.—Dr. Rommelaere, *Jour. de Med.* of Brussels, publishes a series of clinical observations, illustrating a new point in the pathology of cancer. In thirty-four cases investigated by him, he finds that in cancer of the stomach the amount of urea daily eliminated progressively diminishes until it is below 12 grammes (180 grains). In twelve cases of gastric ulcer the daily elimination was about 25 grammes. In studying cases, therefore, where doubt exists between ulcer and cancer a diagnosis can thus be made.

RECEPTION TO DR. JENKS.—Dr. Jenks, who formerly practiced in Detroit, but who accepted the chair of Gynecology in the Chicago Medical College, five years ago, has recently returned to his former home, on account of his wife's ill health. A grand reception was given him at the residence of Dr. Morse Stewart, at which upwards of a hundred of his former fellow-practitioners and a number of prominent citizens were present. We congratulate the Dr. upon this generous exhibition of fraternal feeling.

APPOINTMENTS.—Dr. Sheard, Prof. of Physiology, and Dr. Teskey, Demonstrator of Anatomy, Trinity Medical College, Toronto, have been appointed, the former on the acting staff, and the latter Pathologist to the Toronto General Hospital.

The following changes have been made in Bishop's Medical College, Montreal, Dr. D. D. Gaherty, Prof. of Anatomy; Dr. H. L. Reddy, Prof. of Medical Jurisprudence; Dr. J. C. Cameron, Prof. of Obstetrics; J. T. Donald, M. A., Prof. of Chemistry.

Dr. James Gray has been appointed Medical Superintendent of the Montreal General Hospital.

OMISSION.—In our report of the Ontario Medical Association, we inadvertently omitted to make mention of two interesting papers, one by Dr. Gunn, of Brucefield, on "Hysteria," and the other on "Exophthalmic Goitre," by Dr. Campbell, of Seaforth. The latter paper will be found in the present number, and the former will appear in an early issue. Both are worthy of attentive perusal.

HYMENEAL.—Dr. Sheard, Prof. of Physiology in Trinity Medical College, Toronto, has joined the great army of Benedicts, and has gone with his bride to Baltimore. He will visit the Johns Hopkins University and look into their methods of investigation and instruction in physiology and pathology. We offer him our congratulations, and wish him all happiness.

BRITISH DIPLOMAS.—The following gentlemen, graduates of Trinity Medical College, Toronto, have successfully passed their examination for the L.R.C.P., Edin:—Drs. B. H. Scott, A. Gillespie, J. Stuart McCullough, J. E. W. Anderson, J. Stanchish McCullough, E. A. Hall, W. J. Chambers.

HAY ASTHMA.—The approach of the "hay fever" season suggests a reference to some of the remedies which have been found serviceable in this affection. Belladonna is highly spoken of by Dr. Philips in the *British Med. Journal*. He gives one and a quarter minims of the succus in water every hour till relieved. Dr. Dobson, in the *Lancet* for May 31st, recommends the inhalation of camphor and steam. One drachm of powdered camphor is put into a vessel containing hot water and the steam inhaled for twenty minutes at a time, and repeated every hour until relieved.

NOTICE.—If the person who advertised the practice for sale in a rapidly growing town on the Georgian Bay, in the last issue of the *LANCET*, will communicate with this office he will hear something to his advantage.

TRINITY COLLEGE CONVOCATION.—The following medical gentlemen received the degree of M.D., C.M., on the 3rd ult.: Drs. M. Sutton, Jas. Henderson and W. Nattress.

REMOVAL.—Dr. A. Sanford, of Upper Kennetcook, N. S., has removed to Brooklyn, N. Y., where he intends to establish himself in practice.

THE British Medical Bill has passed the second reading and there is now no reasonable doubt that it will shortly become law.

THE death of Cæsar Henry Hawkins, of London, Eng., Sergeant-Surgeon to the Queen, is announced.

Books and Pamphlets.

ECZEMA AND ITS MANAGEMENT, based on the study of three thousand cases. By L. Duncan Bulkley, A.M., M.D., New York. Second Edition. New York: G. P. Putnam's Sons. Toronto: Williamson & Co.

This is the second edition of this work by the well-known authority on skin diseases. He has had large practical experience as a dermatologist and has turned it to good account. The work before us is based on the study of three thousand cases of the disease under consideration, which have been analyzed with praiseworthy diligence. He has studied the relation of eczema to asthma

and has come to the conclusion that the latter is a condition of the pulmonary tract similar to that found on the skin in eczema. He also believes eczema resembles gout and rheumatism in certain respects, and is dependent on a similar unknown cause. In the treatment he lays great stress on dietetic and hygienic measures. He believes that arsenic is often of value in chronic cases, but used indiscriminately it may do harm. Cod-liver oil is well adapted to most cases. For eczema of the anus and genitals, which sometimes proves so intractable, he recommends hot water, as hot as can be borne, applied for about five minutes, the parts then pressed dry with a soft napkin, and some ointment containing tar and zinc immediately applied to exclude the air entirely. It is upon the whole a most admirable book, but is somewhat encumbered with matter which is not essential to the elucidation of the subject.

SECOND ANNUAL REPORT OF THE ONTARIO BOARD OF HEALTH, FOR THE YEAR 1883.

This report gives evidence of a considerable amount of labor on the part of the various members of the Board, but in the shape in which it is, we fear the outcome will be of little practical value to the general public. A few small pamphlets containing practical information on sanitary matters, circulated broadcast, would be of infinitely more service than this cumbrous report, which will be read by nobody, and referred to by very few outside of the small body of sanitarians. It is useful merely as a record of the labors of the board—an account of their stewardship, and as such is not wholly without interest. It seems a most difficult task to arouse any degree of interest in the public mind regarding sanitary reform. Even the approach of cholera seems hardly sufficient to arouse municipal authorities to a sense of their duties and responsibilities.

THE POPULAR SCIENCE MONTHLY for August, 1884. New York: D. Appleton & Co.

The August number of "The Popular Science Monthly" contains several interesting papers, among which may be mentioned two articles on the future of religion. The first, "The Ghost of Religion," is by Frederic Harrison, and is an attack on Mr. Spencer's "Unknownable," and the second, "Retrospective Religion," is Mr. Spencer's reply. "The World's Geyser-Regions," by Dr. Peale, with several full-page illustrations, is also very instructive. There is also a curious and interesting article on old-fashioned arithmetic, under

the title of "The Mystic Properties of Numbers." The Editor's Table is occupied with a discussion of the relations of "Science and the Temperance Reform."

Fifty cents a number, \$5 a year; with the CANADA LANCET \$7 per annum.

CLINICAL CHEMISTRY, by Charles H. Ralfe, M.D. Illustrated with 16 engravings. Philadelphia: H. C. Lea's, Son & Co.

THE DISSECTOR'S MANUAL, by H. Bruce Clarke, M.B., and Charles B. Lockwood, M.B., F.R.C.S., Eng. Illustrated with 49 engravings. Philadelphia: H. C. Lea's, Son & Co.

ELEMENTS OF SURGICAL PATHOLOGY, by Augustus J. Pepper, M.B., F.R.C.S., Eng. Illustrated with 81 engravings. Philadelphia: H. C. Lea's, Son & Co.

The above are three of a series of "Students' Manuals," issued by this well-known publishing house. They are octavo size, well printed, and handsomely bound. The object of these works is to furnish students and practitioners with a concise account of the subjects presented. The authors have apparently kept this object well in view, and the result of their labours is very satisfactory.

REPORT OF THE MEDICAL SUPERINTENDENT OF THE ASYLUM FOR INSANE, TORONTO, FOR THE YEAR ENDING 30th September, 1883.

From a casual glance at the superintendent's report, we find that the death rate has been very uniform for several years past, and considerably below the average mortality in asylums, being about $4\frac{1}{2}$ per cent. This is a fair estimate of the healthfulness of the inmates, and evidence also of favorable sanitary surroundings. The recoveries have been 65, out of 162 admissions during the year, or 40 per cent., or $7\frac{1}{2}$ per cent. of the entire population. The superintendent estimates the number of insane people in this province at 2,800 or 1 to 714 of the population, of which 90 per cent. are under asylum care. This is a much better showing than that of our neighbors across the line.

Births, Marriages and Deaths.

On the 10th ult., Charles Sheard, M.D., M.R.C.S., Eng., Professor of Physiology and Pathology, Trinity Medical School, Toronto, to Virna, eldest daughter of E. Stanton, Esq., Toronto.

On the 2nd ult., at Uniontown, Kansas, the beloved wife of Dr. A. L. Fulton, Editor of the *Kansas City Medical Record*.