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OF

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Original Communications.

MALARIA.

BY A. MACKINNON, M.D., STRATFORD, ONT.

As malarial fever prevails over a large portion of the habitable globe, it necessarily follows that the subject of this article deeply concerns millions of the human family. Unfortunately as yet the subject is but imperfectly understood, and the probability is that it will always remain so. A good deal however has come to the surface, with which the general practitioner should make himself acquainted. That simple case of *ague*, which the medical man may see in many localities throughout Ontario, is capable, under favorable circumstances, of undergoing important changes, until at last it presents itself as a fatal scourge. Aggravated *ague* is the scourge of India, where it destroys its countless thousands, and where it has slain hundreds of our own brave and adventurous countrymen. Malignant *ague*, or what is the same thing, malarial fever, is the terrible messenger of death of which we hear so much from African travellers. It is the malignant fever of the Mediterranean coast, and of Central and South America. Malarial fever is known by different names, according to the type it assumes. The simple form being vulgarly called *ague*, chill fever, or "the shakes;" but more properly intermittent fever. A more aggravated type is called remittent fever, or bilious remittent fever. Then we have the type called by Flint typho-malarial. Malarial fever, too, is sometimes designated by localities, as "Panama fever," "Louisiana fever," "swamp fever," etc. It is met with in many of the richest and fairest portions of the earth. It even seeks by preference the fertile river valley, with its redundant foliage and productive

fields; it follows man to the hill-sides, and finds him out on the mountain tops and slays him there. It respects neither age, rank nor sex.

It is a matter for thankfulness, that while so many parts of our earth are thus scourged, there are other and larger portions free from the more manifest destruction of this fell destroyer, and that we have it in our power to shun his fatal breath.

The area within which malarial poison works its evil consequences, may be defined with more or less accuracy. The topography of our country as relating to malaria, I do not find anywhere described. While practising my profession for several years in the town of Sarina, my attention was forcibly drawn to the subject of malaria, from its prevalence there, and in the surrounding country; but possibly still more forcibly, from personal and family experiences, illustrative of the evil effects of malaria on the constitution. The great malarial district of Western Ontario is but a fraction of a larger malarial district, extending beyond the waters separating Ontario from the State of Michigan. The northern boundary of the Canadian section of this district may be located a short distance south of Bayfield, on the coast of Lake Huron. From that point, it includes a breadth of a few miles from the water, running south to Parkhill, which village lies not far from the south-eastern corner of the lake. From this point it assumes a greater depth, and embraces the country lying to the west and south, namely, the whole of the counties of Lambton, Kent and Essex, with a part of Middlesex, and perhaps a small portion of Elgin. The more intensely malarial part of this section is that which lies along the St. Clair river, Lake St. Clair and river Detroit, especially that bounding on Lake St. Clair. Within the area thus described, malarial fever may be seen and studied in all its forms, except the most malignant, which is rarely met with on the Canadian side. The American portion of this district is very extensive, and embraces nearly the whole of Michigan, a part of Ohio, north-eastern and north-western Indiana and north-eastern Illinois. The intensity of the poison varies greatly with the locality, being more malignant where the factors of its production are most abundant, as in the vicinity of low and marshy coasts, along the courses of the rivers, or in the neighborhood of swamps, being almost absent on some of the highlands. In the early settlement of Michi

gan, the inhabitants suffered beyond description, and thousands ran madly into the jaws of death. Although greatly ameliorated by the opening up of the country, yet even now malarial fever is fearfully prevalent; and in some parts, as in the Saginaw valley, the mortality from this cause is very great. Sudden deaths are of frequent occurrence, and the general health is far below par. In the fall of 1871, a young man went from the county of Latabton to Saginaw to engage in lumbering. He took sick and died in a few hours. His relatives were telegraphed to, and they went for the remains. They brought back with them the mixture prescribed by the doctor, firmly believing that the young man was poisoned, so sudden was his death. I told them he was most certainly poisoned, but not by the simple quinine mixture submitted for analysis; he was poisoned by malaria. How strange it is that people will settle in such pestiferous regions, when healthier and finer portions of the earth remain unoccupied and neglected. But, to return to our own country. With the exception of the malarial district already described, fortunately we have no other of any great magnitude. The valley of the Grand river, beginning in the neighborhood of Caledonia, ranks second as a malarial district, both as to its extent and the intensity of malarial poison. Malaria prevails also at the mouths of most of our rivers, but usually embracing only a small area of country, the poison being feeble from attenuation. In addition to these, we have smaller districts scattered here and there over the face of the country, where malaria is more or less rife, but rarely manifesting itself in a more aggravated form than simple *ague*.

CAUSATION.—At first sight it appears easy enough to define the cause of malarial fever, but on closer examination it will be found a most difficult question, being involved in the deepest mystery, and to be unravelled only by patient investigation, aided by all the light the sciences can afford. On this head, Flint has the following:—“The causation involves a special morbid agent, commonly known as malaria. The production of the special cause was attributed to vegetable decomposition in marshy localities, and called marsh miasm, (1717) by Lanciscè, an Italian writer. This doctrine and the name have since been very generally adopted. But that something more than ordinary vegetable decomposition is requisite for its pro-

duction, is sufficiently proved by the disease being indigenous in certain localities, whereas, in certain districts and countries in which vegetable decomposition must take place abundantly, the disease never occurs. If produced in connection with vegetable decomposition, it depends on incidental circumstances peculiar to certain localities. Observation shows it is generated more especially in marshy situations, but its production is not confined to such situations, and hence the name *marsh miasm* is open to criticism. Heat, moisture and decomposing vegetable matter are popularly received as the essential factors of malaria, yet we are told by Flint and other observers, that these conditions are present in some localities where they fail to generate malaria, and, on the other hand, that malaria exists in certain other localities where these factors are absent. Clearly, then, the question is involved in much mystery. All that can be said with certainty is, that malaria effects by preference low and moist localities. This is eminently unsatisfactory, it must be confessed. As yet, no successful attempt has been made at clearing up the mystery. Beyond the supposed discovery of Dr Salisbury, of Cleveland, Ohio, we have nothing definite. Some years ago that gentleman published a paper, wherein he claimed to have discovered the real cause of malaria. In all aguish localities he professed to have found a species of algoid plants called palmelle. On examining with the microscope, the saliva and urine of persons residing in aguish localities, Dr Salisbury tells us he discovered spores of the algoid type. Besides, he experimented with the plant on healthy persons, residing in situations free from malaria, and produced cases of ague. I am unable to find that Dr. S. followed up his investigation, or that his discovery has been accepted by any authority on the subject. Some writers have attempted to clear up the question by ascribing to ozone a neutralizing power, thus making the presence of malaria dependent on the absence of ozone. That a fourth agent or factor plays an important part, either in the generation of malaria or by modifying or neutralizing it, is beyond peradventure. That the existence of such an agent depends on a local cause, must be evident. It is more than problematical that such local cause is of a geological character, exercising some important electrical influence. “What life is, we know not; what life does,

know well," said Linnaeus, the great naturalist. The words will apply with almost equal force to the present knowledge of malaria—what it is, we know not, what it does, we know well.

Vegetable decomposition has always been considered as associated with the production of malaria. If this is essential, will some one explain the prevalence of malarial fever at a time when all nature, marsh as well as highland, is clothed in the deepest green, every blade, by its health and vigor, proclaiming the life that is in it.

CONTAGIOUS.—Contrary to the received opinion, I believe, under favorable circumstances, malarial fever may be communicated by one person to another. Flint says we have no proof of this. One of the arguments used by him against the contagiousness of yellow fever is, that "it is produced without the body." Well, most writers admit typhoid fever is produced without the body, yet it is admittedly a contagious disease. For that matter, I suppose all the contagious diseases must be capable of spontaneous production, since no one will contend that the Creator, after he had finished his work, and declared it altogether lovely, said, "let there be small-pox, and there was small-pox." The spontaneous production, then, of malaria, cannot be received as evidence against its contagiousness. Reasoning by analogy, I cannot understand why a system, surcharged with malarial poison, should be incapable of communicating the disease to another, unless the poison is changed in its passage out of the system, which no one professes to believe. Since it is unlikely that the poison is increased in the system, it necessarily follows that the disease can be but feebly contagious—but contagious nevertheless. The reason why persons infected, removing to a healthy locality, do not communicate the disease, is, that the atmosphere being pure, the poison is rendered harmless by attenuation. This view has an important bearing on the treatment of the disease, and the regulations to be observed in the sick room. Medical men, believing in the non-contagiousness of the disease, are too apt to neglect those sanitary laws so strictly enjoined in other fevers. The result is often most disastrous, not only to the patient, but also to the attendants. In support of a position, generally believed to be untenable, I shall adduce two or three cases occurring in my own practice. Previous to my

removal to Sarnia, I practised in Ailsa Craig, a village without, but not far from the eastern boundary of the malarial district described in this paper. The time was about the close of winter, there being yet snow on the ground. Throughout that winter, remittent fever was unusually rife in the neighborhood of Parkhill. Dr. Caw had no fewer than seventy cases, more or less severe, and from long experience in a malarial district, he had no doubt as to the nature of the fever. A female servant in a family whose medical attendant I was, went to see her mother and other members of the family who were down with the disease. A few days afterwards, the man-servant was sent to bring the girl home. He remained in the house for a few hours, and both returned. Some days after her return, the girl took sick of remittent fever, and in spite of assiduous medical attention and careful nursing, she died after an illness of three weeks. The young man, who had not been in her room during her illness, took sick in a week or ten days after having been exposed. As soon as he felt unwell, he went home to his family, where he was attended by two medical men. Her too, died. No other case occurred in that locality during that spring, nor during the two following years I remained there. These were, almost beyond doubt, cases of malarial fever contracted by contagion. The season, winter, precludes atmospheric poisoning in the ordinary way. In December last, I was called in consultation to see a middle aged man, who had been ill from remittent fever for several weeks. He was reduced to a mere skeleton. He was always more or less subject to ague. As he became convalescent, his wife, a strongly-built and healthy woman, was taken down. She had lived in that district almost all her life, but never before suffered from malaria. Her youngest child, who occupied the same bed with her, also took the disease. Theory: the woman carried in her system a certain amount of malaria, as every one residing in a malarial district does; in nursing her husband, she inhaled an additional portion, sufficient to overcome her resisting force. To say that this might be owing to the lowering of the vital powers by exhaustion, is begging the question, since she had been frequently ill from other causes, and that, too, at seasons more propitious than winter, without suffering from malaria. That lowering of the vital powers, from

any cause, affords the poison an opportunity for asserting its ascendancy over the system, I readily admit. Indeed, this is generally the reason, why one person in a malarial district is attacked, while another enjoys immunity from its more marked effects. Yet I do not admit this as fatal to the theory of contagion. The same argument will apply with equal force to other diseases of whose contagious character there can be no doubt. In the case of the child, exhaustion can scarcely be pleaded as the cause. It had the same care as the other members of the family, with this difference, that it slept with its mother and in the same apartment as that occupied by the father. No other inmate of the house took the disease. My conclusion then is, that within the bounds set, malarial fever is a contagious disease.

DURATION.—The duration of malarial fever varies from a few days to a number of years, differing with the constitution of the individual and the locality in which he resides. It sticks to certain persons with wonderful tenacity. This property is the only satisfactory explanation of the prevalence of the disease, occasionally, during the snow and severe frosts, even of a Canadian winter. Towards the close of last winter, I believe the disease was as rife in Sarnia, as it was the previous autumn.

EVIL EFFECTS. This article is already unduly extended, but I must beg permission to add a few words under this head. It would be difficult to find language descriptive of the evil effects of the protracted action of malarial poisoning on the human constitution. As it never exalts, but invariably lowers the vital powers, its action cannot be otherwise than most detrimental to health and life. To be satisfied of this, it is only necessary to see a person chronically affected enter your office. If at all acquainted with the effects of the disease, you will spare him the trouble of answering the usual round of questions, for you know already his ailment. The sallow paleness of his face, the dull, heavy eye, the unsteady gait and irregular muscular action, with an inexpressible general languidness, indicate clearly enough a system shattered by malaria. Upon examination, you will find some organic changes. The stomach is no longer capable of furnishing suitable pabulum. The patient will tell you he is "bilious," and that he cannot eat. His bowels are either constipated or he has diar-

rhoea, and the motions are clay-colored, from defective biliary secretion in the alimentary canal. His liver is diseased or deranged in action, and the spleen is almost certain to be enlarged. These and other troubles are daily met with in every malarial district. They exist in every degree, from simple indigestion, commonly called "biliousness," up to the most distressing and aggravated form. Although some persons enjoy remarkable immunity from the more marked evils to which it gives rise, yet all must suffer, the difference is one of degree, as in the case of alcoholic stimulants or tobacco. Some writers have ascribed to it the power of curing other diseases, but I fancy a short residence in a malarial district would dispel all belief in the antidotal power of malaria. Its power, however, to induce other diseases is beyond the province of speculation. By its property of lowering the vital powers, it leaves the body the prey of other diseases. I am satisfied it, in this way, excites the tuberculous diathesis, and assists that disease to overcome its victim. That it is conducive to neuralgic and rheumatic affections, is also certain. It renders epidemics, such as cholera, more fatal; and endemics, of whatever kind, are intensified by it. Scarlatina and diphtheria are especially fatal in malarial districts. Point Edward, a village one mile north of Sarnia, is much more malarial than the latter place. While, in four years, there were not more than three or four fatal cases of diphtheria in Sarnia, there could not have been less than thirty at Point Edward, with its small population of twelve hundred. Cerebro-spinal meningitis, too, is of a nature likely to receive material aid from malaria in its work of destruction. Parturient women are also often the subjects of malarial poisoning, resulting in a tedious and unsatisfactory recovery, and sometimes death. In short, and as I said before, malaria never exalts, but invariably lowers the vital powers, therefore its action must always be inimical to life and health, and the full enjoyment of the moral and mental faculties.

REMOVAL OF THE TONGUE.—E. M. Vassar, M.D., Cahaba, Ala. (*Geo. Med. Companion*), recently witnessed the successful removal of the tongue from a Spaniard, aged 67 years, by Dr. J. T. Gilmore, of Mobile. The operation was performed with Dr. Nott's Rectilinear Excisor for cancer of the tongue.

SOME OBSERVATIONS UPON SCARLATINAL PLEURISY AND UPON THORACENTESIS IN THAT AFFECTION.

BY R. P. HOWARD, M.D., L.R.C.S.E.; PROFESSOR OF THEORY AND PRACTICE OF MEDICINE, MCGILL UNIVERSITY.

(Read before the Canadian Medical Association in September, 1872.

It is well known to practical physicians that acute pleurisy is, in children, a rare affection, as compared with its frequency in adults; it is even more rare as a complication of the eruptive fevers. Having, in the year 1864, during the prevalence of Scarlatina, met with several cases in which acute pleurisy supervened during the course of that fever; and as the complication is a serious one: as the inflammatory products appear generally if not invariably to differ from those of ordinary pleuritis; as the subject has not attracted the attention that it merits; and as the cases suggest some points of practice, I have ventured to bring them before the Association.

CASE I.—A pale, delicate girl, of 8 years, took scarlatina in the latter part of March, 1864. The case was severe; both ears discharged pus, and her nose bled profusely, at intervals, for two or three days; so that I feared she would sink. About this time she complained of pain in the left breast, and on examination the left side proved universally dull, the respiration absent, the intercostal spaces filled up smooth and widened, and the heart displaced to the right nipple. She had had slight pain in the right side for a short time previously.

Recognizing the presence of pleuritic effusion a generous diet, sinapisms to the chest, and a mixture of iodide of potassium and bark were prescribed. Soon after, the Unguent, Iod. Pot., was rubbed in three times a day. I ought to have mentioned that about the time of discovering the pleuritic effusion the left lower extremity was œdematous and that the œdema extended up to the body; the urine was scanty and high colored, but its chemical characters were not taken. As her strength failed rapidly, her breathing was short, and no signs of absorption had appeared after six weeks treatment, I resolved to tap the chest, and did so on the 20th May by a direct plunge of the

trocac into the eighth intercostal space, in a line with the inferior angle of the scapula. A little over a pint and a half of healthy pus escaped when air began to enter the chest, and the trocar was withdrawn and a bandage applied. Wine, *ad libitum*, egg-nogg, and animal broths were ordered at short intervals, and the tonic mixture was continued.

May 24th.—Orifice closed; no discharge of pus since 20th; the percussion dullness extends as high as the spine of the scapula: the bulging of the second and third left intercostal spaces in the infra-clavicular region is as great as before the tapping; pulse very weak and frequent. I thrust a large trocar through the former opening, and evacuated two and a half pints of healthy pus, and the left chest filled with air. Left the wound open.

26th.—Orifice closed; blowing respiration audible as low as the puncture; coughs more; œdema of legs increasing; eats better, and drinks about ten or twelve ounces of wine daily.

28th.—To have a mixture of muriated tincture of iron, quinine, and chloric æther, three times a day.

29th.—In great distress from pain while coughing; the tumour upon left mammary region emits a dull note on percussion over its lower half, owing to the presence of fluid, and a clear one over its upper half, from the existence of subcutaneous air. Made an incision into the tumour about the lower border of the fourth rib, and gave exit to two tumblerfuls of odourless pus; the opening in the back likewise discharged about two ounces of pus. Air escaped from the anterior incision during coughing. To have one-eighth grain Pulv. Opii. *pro re nata*, to relieve pain and cough.

31st.—Easier; no cough; no expectoration; a very liquid mucous râle audible in left infra-clavicular and lateral regions, proving partial expansion of the lung; a little thin pus escaping from the anterior incision.

June 2nd.—Only a small quantity of discharge from anterior orifice; not any from the posterior; lower half of chest dull on percussion, but a mucous râle audible to-day in left infra-scapular region; heart in its natural site; pulse 156, weak; œdema of lower extremities much reduced.

June 4th.—Cough reduced to one paroxysm a day; scarcely any bubbling to be heard in left

chest; appetite very good; has sat up for last three days.

This child steadily improved and regained her health.

In this first case of scarlatina then, let it be noted that about the same time that the anasarca appeared, acute pleurisy set in with effusion, and after six weeks of unsuccessful treatment thoracocentesis was performed on the 20th May, and *pus* was evacuated. The operation was repeated upon the 24th and upon the 29th; signs of expansion of the lung existed on the 31st, and the child recovered promptly.

CASE II.—On the 21st May, 1864, and about nineteen days after the invasion of mild scarlatina, a fine child, aged 3 years, presented the symptoms of general dropsy. A dose of compound powder of jalap every other morning, a warm water and soap bath every night, and a solution of acetate of ammonia every four hours were ordered.

The anasarca did not increase; but about the 27th I noticed that his cough, which had been slight on the 22nd, was marked, and on examining the chest discovered almost wooden dullness and feeble respiration all around the lower half of right chest, and a clear note on percussion over the upper half; the breathing short and frequent, and decubitus towards affected side. A mixture of Iodide Potassium and Liq. Ammonia Acetatis was ordered; the side to be rubbed three times a day with Ung. Iodid Potass.

June 4.—Right side of chest much enlarged, and its intercostal spaces on a level with the ribs expansion movement much reduced; the whole of that side emits a wooden dull note, except close under the clavicle, where it is of a modified, tubular character; respiration audible all over the right chest, but feebly over its lower two-thirds; hyper-resonance, with exaggerated respiratory murmur over left chest; decubitus altogether on the right side; frequent cough; anasarca stationary. Treatment continued.

On the night of the 7th June the father called to say that about two hours previously his child had *suddenly* become weak, his face pale and his breathing embarrassed. Ordered frequent sinapisms and a mixture of Aromatic Spirits of Ammonia with Sweet Spirits of Nitre, and a little gin punch.

8th.—Has been easier since 1 a.m.; is now

anxious; the lips are blue, eyelids puffed, and features tumid: much firm œdema of right (depending) arm, leg and side of body; less upon left side; pupils widely dilated; pulse very weak and frequent; right chest even more enlarged than heretofore; fine and coarse bubbling over lower third of *left* lung, and to this complication I attribute the sudden increase of dyspnoea.

5 p.m.—Tapped the right chest with small trocar in eighth interspace, in line with inferior angle of scapula, and evacuated a pint of healthy pus. As the matter no longer escaped during coughing the trocar was removed. Owing to the child's weakness the chest was not thoroughly examined, but I noticed that as it lay upon the right antero-lateral aspect of the body, percussion elicited a somewhat amphoric resonance over the middle of the right back, and in the same region existed large, hollow bubbling, hollow blowing respiration, and cough with metallic echo.

9th.—Passed restless night; decubitus as before; right side prominent; the right infra-clavicular region markedly so; opening made by trocar not closed; pressure produces a tiny stream of pus.

10th.—Mother thinks child easier; the mucous râles at left base have disappeared, but the right infra-clavicular region markedly so; opening made by trocar not closed; pressure produces a tiny stream of pus.

12th.—Mother thinks child easier; the mucous râles at left base have disappeared, but the right chest is dull to the level of the first intercostal space, where percussion produced a modified amphoric note; intercostal spaces widened. As the puncture had ceased to discharge I thrust the trocar through it and evacuated a little over a pint of healthy pus, devoid of unpleasant odour, when the chest at once became resonant as low as the level of the puncture, and the same physical signs which followed the previous tapping and indicated the existence of hydro-pneumo thorax supervened. The enlargement of the right chest has disappeared. R. Ferri. Mur. Tinct. ʒii., Cinchonæ Co. Tinct. ʒ iss., Limonum Syrupi ʒ ii. m. A teaspoonful every three hours.

15th.—Signs of pneumo-thorax over upper two-thirds of chest; dullness, with feeble respiration over lower third; whistling and snoring rhonchi, and much bubbling over *left* back, especially inferiorly; right lateral decubitus; pulse frequent

skin harsh; sudamina here and there; œdema of hands and feet; much wasting. To continue mixture, and have a couple of raw eggs in milk during the day.

19th.—Has not taken the eggs, but has drunk milk freely, yet is much weaker and very pale; apparently the infusion into the right pleura has not increased, but mucous râles are more numerous and more extensively distributed over left lung. The child sank rapidly during the night. No autopsy was permitted.

In this second case, a few days after the invasion of scarlatinal dropsy, the signs of effusion into the right pleura were discovered. Nine days later the infant was suddenly seized with symptoms of apnoea, probably due to the co-existence of general bronchitis in the uncompressed lung. The child was tapped on the tenth and again upon the twelfth day after the detection of the signs of effusion; pus was evacuated in abundance, affording some temporary relief, but death ensued nine days subsequently, owing, I doubt not, to the extensive bronchitis which involved the uncompressed lung.

CASE III.—*Empyema Secondary to Scarlatina, Thoracentesis.—Recovery.*—In the Spring of 1864, I was requested to see a little girl about six years old, from whose history it appeared that she had had a few weeks before mild scarlatina; that after desquamation she did not convalesce, but became paler and grew weaker; pain in the side and dyspnoea supervened, and at the end of three or four weeks my opinion was asked. On examination the physical signs of copious effusion into the left pleura were found, and as the child was very weak and rather hectic I at once tapped the chest and evacuated a large quantity of pus. It was not necessary to repeat the operation. The orifice remained open a few days: the pus did not re-accumulate, and the child made a prompt recovery.

CASE IV.—*Scarlatinal Dropsy with Empyema.—Expectoration of Pus.—Recovery.*—In March of the same year as that in which the preceding cases occurred, while attending a child about two years old for scarlatinal dropsy, acute pleurisy of the side arose, and was followed by the signs of copious effusion. The anasarca gradually disappeared under the employment of drastics and diaphoretics, but the distress of breathing and signs of pleuritic effusion persisted for some time in spite of the

usual remedies. One day, however, a large quantity of pus was suddenly *expectorated* with great relief; more or less pus continued to be coughed up every day for two weeks; the enlargement of the side, the dulness, and other signs of effusion disappeared, and the child gradually recovered.

It will have been observed that in all these cases the inflammatory products proved to be purulent, constituting the condition known as empyema, a circumstance which at the time much attracted my attention, and of which since then I have always spoken to my class when lecturing upon scarlatina or pleurisy. I am not aware if other observers have noticed the same thing in scarlatinal pleuritis, but I have no doubt that my cases have not been exceptional. Some of our latest pathologists have stated that the inflammatory products of pleurisy are more apt to be purulent in children than in adults, and some of them have alleged, also, that *secondary* pleurisy in children is commonly purulent. The first of these general statements in my opinion, requires confirmation, as I am under the impression that it is based rather upon the results of the operation of thoracentesis, and upon post mortem examination than upon purely clinical observation. Were the inflammatory products of pleurisy in children usually purulent, it would very probably be more often fatal than it is, and the operation of thoracentesis must have been more frequently practised on children than it has been. Be this as it may, one reason may be drawn from analogy explanatory of the tendency of scarlatinal pleuritis to produce pus. It is known that in Bright's disease the inflammatory process upon serous membranes and in the lungs is prone to issue in suppuration and occasionally in gangrene. It may well be, then, that it is in the abnormal state of the kidneys in scarlatina, or the general condition caused by that state, (the acute Bright's disease), that renders pleuritis in scarlet fever prone to produce empyema. In three out of four cases that I have related, anasarca existed when the pleurisy set in. Not having accurate notes of the remaining case I am unable to say whether it was present or not in it.

A study of the foregoing cases appears to me to justify the following conclusions or propositions:—

1st.—That the pleurisy of scarlatina is usually not to say invariably— an acute empyema

2nd. That in *scarlatinal* pleurisy, when the signs of effusion are marked and do not promptly disappear, it is well to make an exploratory puncture of the chest at a much earlier period than is even now customary in *ordinary* pleurisy following *exposure*.

3rd.—That tolerably prompt and, at the same time, complete recovery of the lung may be expected under these circumstances, chiefly because the inflammation is *acute* and *recent*, and that the vital powers have not been exhausted by a protracted illness, nor the condition of the lung been altered by prolonged compression, as in chronic empyema.

4th.—That if the disease (the pleurisy) be not of long standing, *i. e.*, if it be recent, the appearing of pus in thoracentesis is not at least in scarlatinal pleurisy, a very grave indication. The majority of such cases will probably terminate favourably.

5th.—That the pus in scarlatinal empyema may perforate the lung and be expectorated, and the patient recover promptly and perfectly

6th.—That it is not well to wait for such an occurrence, which appears to be unusual, and, as being long delayed to involve increased danger to life, but rather to make an exploratory puncture early.

7th.—That if the pyothorax of scarlet fever be recent, simple puncture of the chest repeated once or oftener will usually suffice, without the employment of the drainage tube, which is so valuable and often necessary in chronic pyothorax. I may add that judging from my experience in other cases the same observation will apply to other forms of acute pyothorax

CASES OF FIBROUS POLYPI AND FIBROUS TUMORS OF THE UTERUS.

BY R. P. HOWARD, M.D., F.R.C.S.L.

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(Read before the Medico-Chirurgical Society, on 13th June.)

I have not selected for this evening's paper the subject of Fibrous Polypi and Fibrous Tumors of the Uterus, because that any novelty is attached to it or that I have any original views to announce

respecting the origin, symptoms or treatment of such growths, but that having several specimens of these neoplasms in my possession, removed at various times, I hoped a brief clinical history of them might be of sufficient interest to the society to warrant me in intruding so practical a topic upon the consideration of its members.

A Fibrous Polyp. CASE I.—In September, 1866, I was called to a village 50 miles from here to see an unmarried lady, about 30 years of age, who had been the subject of menorrhagia for a long time, and of intermitting metrorrhagia for several months. She presented a blanched exsanguine appearance, was very weak, depressed in spirits, devoid of appetite, and much emaciated. The pulse was flabby and frequent, and her mental condition nervous and despondent. Iron, ergot, sulphuric and gallic acids, acetate of lead, port wine, etc., had severally failed to permanently restrain the hemorrhage; yet, from motives of delicacy, the attending physician had not made a vaginal examination. I at once did so and found a fibrous tumor about the size of a hen's egg, but more globular in form, projecting into the vagina, its upper extremity being tightly surrounded by the os uteri, but not continuous with it. She at once accompanied me to Montreal to have it removed. As the vaginal orifice was very small, a piece of compressed sponge was introduced within it and secured by a T bandage the night before the operation, and next day, with the able assistance of Drs. Campbell and Drake, the growth was removed in the following manner: Chloroform having been administered, the growth was seized with a vulsellum, and a loop of broad tape passed over the latter so as to embrace the highest portion of the polypus outside the uterus—strong traction failed to draw out any more of the tumor from the uterus, it appeared to be very firmly attached by its upper extremity rather than by a true pedicle it was rather sessile than pedunculated. Drawing the polypus almost into the ostium vaginae, I divided it close to the os uteri by repeated strokes of a scissors. No hemorrhage followed, although the cut surface, as may yet be seen in the preparation had a circular area about equal to that of a shilling.

No constitutional or local disturbance followed; the patient soon regained her health, and has menstruated normally ever since.

The growth is an example of the very dense uterine fibromata, and was covered by a thin vascular membrane very like uterine mucous membrane. It was not considered necessary to dilate the os and ascertain the point of attachment of the growth, so that I am unable to determine that fact in its history. Its removal by the scissors illustrates one of the most facile, and in many instances, the safest as well as the most expeditious methods of removing uterine polypi.

CASE II.—Mrs. —, from New Brunswick, æt. 49 years, consulted me in June, 1870, respecting what she had been told was a "prolapsus uteri." She had been married twelve years without issue, and had been for several years subject to profuse menstruation every three weeks, and to occasional attacks of severe metrorrhagia. During the year preceding this report, these symptoms had increased in frequency and urgency, and several times she had been obliged to procure medical assistance. Vaginal injections of alum had been employed for a long time.

She was a stout, rather fat, and cheerful person, and although very pale, was with the above exception very healthy.

A pear-shaped, firm polypus, about the volume of a small-sized hen's egg, occupied the vagina, and its pedicle, of the thickness of my index finger, could be traced through a large and flabby os uteri to its insertion into the posterior wall of the cervical canal, about an inch above the os externum.

On the 17th June, with the assistance of Dr. Ross, then the House Surgeon of the Montreal General Hospital, I passed the chain of an ecraseur within the cervical canal as close to the uterine attachment of the polypus as possible and slowly separated it. Moderate bleeding from the stump of the pedicle ensued, but under injections of cold water soon ceased. A pledget of cotton wool, saturated with a mixture of 1 part of Liq. Ferri Perchloridi Fort. and 4 parts of water, was placed within the os against the divided pedicle, and a tampon of cotton wool introduced into the vagina.

The tampon was removed next day—bleeding had not recurred. No constitutional disturbance followed the operation, and no inconvenience was experienced beyond a moderate discharge from the uterus, and for a few days a slight pain in the right ovarian region. She left for her home quite well

on the 3rd of July, and might safely have done so at an earlier date.

CASE III. — Resembles in many respects the one last related, but has some interesting peculiarities, more especially in the symptoms which followed the removal of the polypus.

In May, 1866, Mrs. — sought my advice with reference to very profuse menstruation of long standing. She was about 46 years of age and the mother of six children, of whom the youngest was eleven years old. A vaginal examination disclosed a slightly patulous os, through which the sound detected an intra-uterine growth. A strict observance of the horizontal posture during menstruation, and the administration of ergot and sulphuric acid, moderated the monthly loss very satisfactorily, and it was agreed to wait for the extrusion of the polypus from the uterine cavity before attempting its removal. On the 24th of July following, she experienced uterine pains and felt that a body had descended into the vagina. Visiting her by request the next day, I found a pear-shaped polypus, 3), as large as a large hen's egg, in the vagina, and attached by a pedicle of about the thickness of my index finger to the inside of the uterus, upon its anterior wall, and at least an inch above the patulous os. On the 28th, with the assistance of Dr. Drake—the patient having been etherized—I passed the chain of an ecraseur over the pedicle and within the uterus, and slowly divided the attachment of the growth, no hemorrhage occurred, but on the 3rd of March a rigor ushered in a smart attack of metritis, attended with offensive discharge from the vagina. This, however, soon yielded to treatment, and she was quite convalescent by the end of the month. Her health became perfectly restored and better than it had been for years.

Two things appear to be worthy of notice in connection with this case—first, the satisfactory result of palliative treatment while the polypus was yet intra-uterine, and all the more apt to produce obstinate menorrhagia—second, the occurrence of metritis after the careful removal of the polyp by means of an ecraseur. Most persons, familiar with uterine disease, must have observed the varying degrees of tolerance of surgical interference with the uterus manifested by different women. In some persons, fortunately they are exceptional, the introduction of a uterine sound or sponge tent, the division of the cervix, the twisting or snipping off

of a small glandular polypus, an intra-uterine infection, etc., will be followed by severe pelvic cellulitis or metritis, while other persons, not distinguishable from the former by the most experienced physicians, will suffer without any unpleasant sequence, similar and much more severe mechanical interference.

An instructive instance of this kind may not be out of place, more especially as it offers an example of a variety of uterine polypus by no means of infrequent occurrence, although not belonging to the variety which forms the subject of this paper.

Early in 1867 a lady put herself under my care in the following condition: About 34 years of age she was sterile, although married 14 years, and had all that time suffered from very profuse menstruation. She was very feeble and anæmic. Insisting upon a local examination, to which she was much opposed, I found, in addition to considerable hypertrophy of the cervix ("Areolar hyperplasia" of Thomas) and a patulous os, four Nabothian polypi (specimen 6) about the size of apple pippins, attached within the cervical canal, and two of those cysts so frequently seen embedded in the lips of the cervix in sterile women. The polypi were snipped off and the two cysts opened with the points of the scissors, and these little operations, practised without violence and even without pain, were followed by a rather sharp attack of pelvic cellulitis, which lasted three weeks. The menorrhagia, although decidedly improved by the removal of the minute polypi, was not altogether cured, and as she was about to visit her friends in Scotland, I advised her to consult when there Dr. Matthew Duncan, to whom I sent an abstract of her case. That gentleman dilated the cervix with sponge, found another small polypus higher up and removed it—severe inflammation followed and she was alarmingly ill for some time.

Here then was a person in whom, on two occasions, serious inflammation of the pelvic viscera was induced by very trivial operations.

CASE IV. differs from those previously described in that the neoplasm was completely enclosed within the uterine cavity and as belonging to a class of cases intermediate between true polypi and submucous fibrous tumors—viz: intra-uterine fibroid growths attached by a broad and sessile base, but of a polypoidal shape (specimen 5).

For the notes of the case up to the time of the

removal of the tumor I am indebted to Dr. Roddick.

"R. R., æt. 30, a tall, dark-haired woman, unmarried, was admitted to the Montreal General Hospital on the 18th of December, 1872. It was difficult to get a very straightforward story from her, but her history and condition was pretty nearly as follows:

"She had always enjoyed good health until a year ago, when she met with an accident by falling down stairs while serving in a family residing at Murray Bay for the season. This fall was followed by excruciating pain in the back, and headache, so intense and persistent indeed that her mistress, becoming alarmed, after a few days sent her to Montreal, when she immediately presented herself at the hospital. While on the way to this city she commenced to 'flow,' and in spite of all treatment lost more or less blood continuously for about a fortnight. No cause could be assigned for the loss, although a uterine examination had been made. Slight pain in the back remained after the hemorrhage, and appears indeed never to have left her since. She positively asserts, however, that her menses became quite regular and of moderate amount until a week before admission this time, when a profuse bloody discharge again commenced, accompanied by back and headache quite as severe as before. She had been troubled with leucorrhœa for years.

"Her condition on admission was that of extreme prostration after hemorrhage, being blanched to a great degree, the pulse frequent and weak, and the appetite entirely gone.

"*Uterine Examination.*—Entire absence of neck of uterus—os extremely thin and dilated sufficiently to allow of the introduction of the finger as far as the first joint—within was readily felt a body resting immediately against the os, and which gave way to the point of the finger pressed against it. The impression conveyed was that of a polypoid growth appended from some point in the cavity of the uterus. Dr. Howard verified this diagnosis at a subsequent examination."

On the 16th of January I introduced a pretty large sponge tent into the os uteri, with the view of fully exploring the relations of the growth and removing it if the attempt should appear prudent. Next day, the patient having been put fully under chloroform, the tent was removed and the finger

passed well up into the uterine cavity. A firm globular tumor, with a broad sessile attachment to the very fundus uteri, was easily made out (Fig. 1). After some little trouble and with the assistance of Dr. Ross, Braxton Hick's wire rope ecraseur was passed over the growth, and its attachments were gradually divided.

Some difficulty was now experienced in delivering the detached tumor from the uterine cavity, and it was not until after I had made two vertical incisions half an inch long, at opposite points of the dilated os, that a long and strong pull upon the tumor with a vulsellum at last extracted it. No hemorrhage occurred and the uterine cavity was washed out with a weak solution of iodine.

At the visit the day after the operation the patient presented well marked erysipelas of the right side of the face, apparently commencing in the meatus auditorius, which had been the seat of a small abscess for a couple of days previously.

The erysipelatous inflammation gradually extended over the face and head, and there was the usual constitutional disturbance of that affection, but throughout its course no pain was complained of in the abdominal cavity, and the only medication addressed to the uterus was a daily vaginal injection of warm water, containing a teaspoonful of Condy's fluid to the pint.

She made a speedy recovery, and two weeks after the operation I found the body and cervix of the uterus of about their usual size, but the os somewhat enlarged by the incisions that had been practised upon it.

The tumor is a firm, almost globular, fibrous neoplasm, measuring in its greatest circumference six inches. Its attachment to the uterus was circular, and had a diameter of an inch and a quarter, as may yet be seen by an examination of the specimen (No. 1).

B. Fibrous Tumors—CASE V. is an example of a true fibrous tumor of the uterus, an affection very much more common than true fibrous polypus of that organ, but on the other hand, although more common, it is less amenable to treatment, and its removal involves more troublesome and dangerous operative measures.

Mrs W., æt 30, has been married several years, is sterile, and for nearly the whole period has suffered from profuse menorrhagia, which she attributes to a uterine tumor, in proof of which she shows

me a pickle bottle filled with coagula preserved in spirits, which she regards as expelled portions of the growth.

The uterus is somewhat irregularly enlarged, the os slightly patulous, and the sound touches a resisting body within the womb. A large sponge tent having been introduced into the os in the evening and removed in the morning, had dilated the uterine mouth sufficiently to permit the detection by the finger of a firm growth embedded in the posterior wall of the uterus, but projecting by one extremity into the uterine cavity, so as to form a submucous outgrowth.

The same day, assisted by Drs. Campbell and Drake, I attempted the removal of the tumor by evulsion and enucleation. The patient having been rendered insensible with chloroform, a strong vulsellum was fixed in that portion of the tumor which projected into the uterine cavity, and after pulling forcibly for a short time, its attachments suddenly gave way and the growth shelled out as completely and neatly as the kernel of a nut. No hemorrhage followed, and the patient made a speedy recovery without an unfavorable symptom. Her menorrhagia also disappeared, and she has enjoyed excellent health ever since—now some five years—but has not conceived.

The tumor, as you see (specimen 6), is somewhat pyriform in shape and about as large as a hen's egg. The narrow end projected into the cavity of the uterus, and about three-fourths of the growth, including its broad end, were embedded in the uterine walls. A thin bed of areolar tissue separated the tumor from the substance of the uterus and permitted of its enucleation. It was a knowledge of this anatomical feature of uterine fibroids that lead Velpeau to suggest their removal by enucleation, and although the operation is not free from numerous dangers, especially when the neoplasms are large and deeply embedded, yet of late years very many such growths have been successfully removed, not a few of them of considerable dimensions.

As it is well known that uterine fibroids are chiefly dangerous through the hemorrhage they induce, more especially when situate beneath the mucous membrane or in the walls of the uterus, and as their removal by excision, enucleation, gouging, etc., is frequently impracticable and always more or less dangerous, I will conclude this paper with a few observations upon a method of

curing the hemorrhage which is the symptom that mainly renders these and other uterine growths especially alarming. I allude to Dr. Savage's plan of dilating the os uteri with a sponge tent and injecting the uterine cavity with a solution of iodine.

CASE VI.—A few years ago, having seen, in consultation with Dr. Drake, a lady the subject of an interstitial uterine fibroid in the posterior wall, as large as a small cocoa nut, which habitually caused alarming menorrhagia, I suggested the injection of iodine into the cavity of the uterus, and the operation at once checked the hemorrhage. On several subsequent occasions my friend resorted to the same measure with his patient, and always with prompt success.

CASE VII.—Mrs F., æt. about 36, married several years, but sterile, had been suffering from severe menorrhagia and metrorrhagia for more than a year, and when first seen by me in November, 1870, was very bloodless-looking and much reduced in strength. On examination several fibroid tumors were found connected with the uterus. One occupied the anterior wall about midway between the os and fundus, and was mainly subperitoneal, a smaller one could be felt through the patulous os embedded in the substance of the womb, but projecting slightly into its cavity; and a third was seated high up on the posterior surface of the organ. The sound required some management to introduce it within the uterine cavity, owing to the distortion caused by these neoplasms. As the removal of two of these fibroids was not practicable, I confined the lady to bed for several weeks, prescribed ergot in combination with iron, and upon several occasions injected the uterine cavity with the iodine solution recommended by Dr. Savage—R Iodi. ʒi, Pot. Iod. ʒii, Spirit: Vini Rect.: ʒii, Aq. ʒvi. By the month of April the tendency to hemorrhage had been quite removed, menstruation had been re-established in moderation at regular periods, and the patient's health and strength had been quite restored.

Dr. Savage's advice to dilate the os before employing intra-uterine injections should, as a very general rule, be followed, and then the alarming symptoms which are occasionally induced by the operation would, if I may rely upon my own experience, be rarely observed. In the following case (VIII.) the omission of the preliminary dilatation of the os was the indirect cause, I think, of

the inflammatory symptoms that on one occasion succeeded the injection.

CASE VIII.—A colleague requested me to see with him a large, fat, and young married woman, who had long been the subject of alarming menorrhagia, symptomatic of a fibrous tumor which had enlarged the uterus to about the dimensions of that organ in the 5th month of gestation. As a result of the consultation, intra-uterine injections of iodine were subsequently employed upon three several occasions. Upon the last occasion symptoms of metritis, or of metro-peritonitis, succeeded the injection within a few hours. These proved quite serious, although manageable, and were followed by phlegmasia dolens. The patient, however, recovered, and the tendency to menorrhagia was cured.

I might cite other instances in which uterine hemorrhage has yielded to the injection of a solution of iodine into the uterus, but these must suffice at present. Had the subject received the consideration that, in my opinion, it merited, in the late able treatises of Drs Thomas and Graily Hewitt, and indeed in various recent articles upon menorrhagia and uterine tumors, I would not have thought it expedient to have added my testimony to that of Dr. Marion Sims, in favor of the efficiency and of the general safety of injections of iodine solutions into the uterine cavity for the arrest and cure of menorrhagia consequent upon uterine fibroids, and I can add uterine polypi.

Whether the repetition of these injections at every menstruation, for five or six months, sensibly reduces the volume of the tumors, and in some instances effects their complete removal, I am unable to say. But this view will not appear improbable when we bear in mind the fact that Sir C. Clarke, Rigby, Ashwell, and more recently McClintock, Mathew Duncan and Playfair, have recorded cases of removal by *absorption* of fibroid tumors of the womb. It may be that the iodine excites inflammation of the substance of these tumors, which, because of their relatively low organization, is followed by fatty degeneration of the inflamed tissue and subsequent absorption.

AN AGED MAID OF HONOR.—Madame Melguéil, one of Queen Marie Antoinette's maids of honor, who accompanied her unfortunate friend to the foot of the scaffold, has just died at the age of 102 years.

CONSERVATIVE SURGERY IN CONNECTION WITH SERIOUS INJURIES.

BY GEO. F. KEATOR, M.D., A.M., SURGEON TO THE ST. JOHN PUBLIC HOSPITAL.

(Read before the St. John Medical Society)

I think that the object for which this society was first instituted, and the interests of the individual members thereof, will be more fully met, by a few practical remarks upon some subject which interests us in the daily routine of our business, and which will afford a topic for interesting discussion; than by reading an elaborate essay upon some abstruse subject, which, although it may require a great deal of time and study in its preparation, is still of very little practical value. I therefore purpose, this evening, to call your attention for a few minutes to the subject of "Conservative Surgery in connection with Serious Injuries," and in doing so, will take the opportunity of illustrating it with cases that have occurred under my own care. I think in this way much useful information may be obtained, and we may be enabled to learn the result of each one's individual experience. When I first began the study of medicine, surgery was not nearly so conservative as it is at present although it was infinitely more so than it was a few years previous to that time. This is readily accounted for in several ways,—first, the increased and increasing knowledge which is accumulating year by year, going to show what nature, when skillfully assisted by art, can and will do; and in the second place, by the great and wonderful discovery of anæsthetics, which enables us to perform operations, and save limbs, which, without it, we could not possibly attempt. Before the days of chloroform and ether, it was the surgeon's aim to remove a limb or perform any other operation as rapidly as possible, in order to save the patient unnecessary suffering, and from the very nature of the case, it was almost impossible to perform many of the now numerous operations of resections of joints, operations for ununited fractures, plastic operations of various kinds, &c., &c., owing to the length of time required and the extreme suffering that would be entailed. Now, on the contrary, the aim is, not necessarily rapidity, though that is well if it can be accomplished, but to select whatever operation, no matter how tedious or protracted,

will afford a chance of saving a limb, or any portion of it. Another improvement in modern surgery, of a conservative character, is the adoption of secondary operations in preference to primary, when there is the least chance of success in saving an injured part; and by secondary operations I do not mean an operation performed some twenty-four hours after an accident has been received, for it may take more than that length of time for reaction to be established, and I think no surgeon should ever operate till that has fully taken place, (except, perhaps, in a few instances, as when bone is pressing on the brain, or when there is excessive hæmorrhage or some condition that necessitates immediate interference); but I mean an operation performed after suppuration has taken place, or in cases of sloughing or gangrene, when a line of demarcation has been fully formed. By waiting and allowing nature to exert herself, especially in young and healthy subjects, and under favorable hygienic conditions, it is remarkable what can be sometimes accomplished. There is, however, one thing in this connection, and it is of very great importance, and one upon which I would like to hear the views of the different gentlemen present this evening, and that is: that as far as my own experience has extended, I have observed that tetanus has more frequently occurred after secondary than primary operations. Now, whether this is simply a *post hoc* or a *propter hoc* is the question I would like to have discussed this evening,—for if the latter, it would throw a very heavy weight in the scale against the advantage of secondary operations. What tetanus is, and what peculiar condition of the nervous system induces it, is, I think, very imperfectly understood in the present state of our science; and whether the irritation caused by allowing an injured limb to remain for a considerable time, undergoing suppuration or gangrene, in the hopes of saving all or a portion of it, would predispose to this form of disease, and render the patient more liable to it than if it had been removed immediately after the injury, is a question worthy of serious consideration. There are certain forms of injury, as we all know, that are more liable than others to be followed by the dread disease; and there are certain systems more liable to it than others, a condition, however, that I think no surgeon can predicate beforehand. What is even more remarkable, there are certain

places in which it is much more common than others; and there is a part of Long Island, in the vicinity of New York, in which it prevails to such an extent as to be the dread of all the surgeons practicing in that neighborhood. In my own practice, I have never allowed the fear of tetanus to deter me in my efforts to save a limb; and the question I would ask, is whether it is in any case the surgeon's duty, or whether it would be considered good practice, to condemn a limb to amputation without making an effort to save it, when there appeared the smallest possible chance of saving even a portion of it, from fear of tetanus?

Notwithstanding the occurrence of this disease, however, it is a well established fact, that the mortality after primary operations, especially amputation of the thigh and the lower extremity generally, is much greater than after secondary; and this being the case, is a tolerably conclusive answer to the question. It is very remarkable, and must strike every observer to see how well a man who is emaciated, and suffering from some lingering and painful disease, bears the shock of an amputation of the thigh, for instance, and seems in many instances to rally and improve in health and spirits almost immediately; whereas, the man in rude health, who from some severe injury is subjected to the same operation, is very likely to sink, and die in a few days. It is not, however, in such cases as these, in which there is apparently no choice but to operate, that I wish to direct your attention; but it is to those in which the chances seem almost altogether against an ultimate recovery, but in which the patient has a good constitution, and where the hygienic influences are favorable, that I would advise you to wait and watch, and with careful and judicious treatment see what nature will do, before sacrificing a fellow creature's limb to the knife. The patient's general condition must be the great guide to govern us in our decision; and when the pulse is good, appetite fair, absence of hectic and irritative fever, no matter how great the extent of injury, it is always well to wait. In illustration of this, I will cite a case that came under my own care some years ago. A man, James T—, a labourer on the railroad, received a compound fracture of the tibia by means of a bar of railroad iron falling on him, the fracture being about the junction of the middle and lower third of the bone. He was seen almost immediately

by an ignorant man, a kind of horse doctor in the neighborhood, who put up the limb at once in the following manner: Having set the bone, he applied to the *naked* limb two pieces of board, and then passed a bandage tightly round the whole, from the foot to a little below the knee, and told the friends, who had care of him, to allow this to remain upon him ten days, keeping the whole constantly wet with alcohol and water. His injunctions were faithfully carried out, and as the accident occurred in the middle of summer, you can easily fancy the condition of things that would arise from the foregoing notes. At the expiration of this time, the stench from the limb was fearful; and his attendants, thinking that something ought to be done, came for me. On removing the bandage, the sight that presented itself was something that I had never witnessed before. The bed on which the leg lay was swarming with maggots, and the bone protruded from the wound about an inch, perfectly white and dead, the soft parts in the immediate vicinity having sloughed to a very considerable extent. In addition to this, there were two large sloughs on either side, caused by the pressure of the boards, and also a large one on the dorsum of the foot. The bandage, which only extended a little more than half way up the leg, and had been passed tightly round the limb, before any swelling had taken place, had caused the matter to burrow up the calf, and a large abscess had formed in this situation. You will, I think, readily admit that the prognosis, as far as saving the limb was concerned, was not very favorable in such a case, at least I myself deemed it so. The only thing that determined me to attempt to do so, was his *general condition*, and this, considering the situation of affairs, was very remarkable. I must premise by stating that he was a young man of good habits, and that he was staying at the time in a shanty in the woods, where the air was pure and healthy, both of which things materially tended to his recovery. But to return to his condition at the time at which I found him. Notwithstanding the tremendous amount of irritation to which one would suppose he must have been subjected from the nature of the case, I found him with a pulse of less than 80, no hectic or night sweats, and a tolerably fair appetite. These circumstances decided me in attempting me to save his limb. Immediately after removing the bandages and

splints, I opened the abscess, which discharged a large amount of pus; and having placed the leg in a fracture box, I ordered a poultice, composed of yeast and flax seed, to be applied to the parts which were in a state of slough. I also ordered generous diet, and gave him a mixture of quinine and iron, with a little porter to be taken thrice daily. In a few days the slough separated, and his general condition also improved gradually and steadily. When the slough came away, the external lateral ligaments of both ankle joints were completely exposed, and also some of the tendons on the dorsum of the foot. After this, the parts began to granulate nicely, still keeping the leg well adjusted in the fracture box, and everything went on favorably except the union in the bone, which could not take place owing to the large amount that was already dead. As soon, however, as the sloughs of the soft parts in the immediate vicinity of the bone had separated and come away, I introduced a chain saw and removed the dead portion, and then carefully re-adjusted the fracture and allowed nature to do the rest. Several months elapsed before union was complete; but in about three months he was able to place his leg to the ground, and in eleven months after the accident I heard of his being again at work on the railroad, almost as well as ever. This I consider a very remarkable case, as showing what nature will do when properly assisted, and one that teaches us that we should not despair where there are any reasonable grounds to hope for success.

There is another class of cases which I think will interest you; and as they illustrate the effects of different modes of treatment, I will detail in a brief manner two parallel ones that came under my own notice. I refer, now, to wounds penetrating the cavity of large joints. The first case is that of a woman about 35 years of age, of dissipated habits, who, while intoxicated, fell down cellar, and struck her knee on some broken bottles, causing a wound about one inch in length, and which penetrated into the cavity of the joint. She was immediately brought to the hospital, and I saw her a short time after the accident occurred. Having carefully examined, and ascertained the nature and extent of the injury, I brought the lips of the wound accurately together by means of silver wire sutures and adhesive straps, and placed the limb on a double inclined plane, with injunc-

tions to keep it perfectly at rest. A saline cathartic was then administered, to be followed after a short interval by an anodyne; and a dozen leeches were immediately applied around the knee joint, with the view of preventing suppurative inflammation. When the leeches came off, an evaporating lotion was applied, with instructions that if there should be any pain after the lapse of a few hours, to apply a similar number of leeches again. The patient rested very well during the night; but on the following morning, and some twelve or fourteen hours after admission, complained of pain in the joint, and twelve more leeches were applied, and the lotion and rest continued. The diet was restricted to gruel, and weak tea and bread; and after the second application of the leeches, there was no pain of any consequence, and she steadily progressed towards convalescence. The wound healed, by first intention, in a few days, and in about a fortnight after admission the limb was removed from the splint, and she was discharged well, without the least injury to the joint. The previous habits of this patient were unfavorable to a good prognosis, but by taking active measures the inflammation was prevented, and success crowned our efforts.

The other similar case showing the effect of an opposite mode of treatment, the result of accident is as follows: A man named Thomas T—, about 30 years of age, engaged on board of a schooner, while cutting some kindling wood, struck his knee with the corner of an axe, and produced a wound which penetrated the cavity of the joint. He was immediately taken to an hotel, and I saw him a short time after the accident occurred. Upon examination I found an incised wound just above and a little to the outside of the patella, which communicated with the joint. I brought the edges of the wound together as accurately as possible, and placed the limb on a double inclined plane, to secure perfect rest, as in the previous case, and explained to him as fully as possible the nature of the injury, and the necessity of obeying my injunctions to the letter. A number of leeches were then applied, and afterwards an evaporating lotion placed on the knee, and low diet enjoined. This was about ten o'clock in the morning, and in the evening I visited him again and found him perfectly free from pain, and anxious to have the splint removed, as he said he did not see the necessity

for it. I again explained to him the nature and danger of the injury, and ordered an anodyne to be taken at bed time, and left him for the night. On the following morning, about ten o'clock, I found him drunk in bed. Some of his friends had visited him after I left, and in the kindness of their hearts, had brought him a bottle of rum, with which he regaled himself during the weary watches of the night, and under the influence of which I found him at my visit. The result of this was very soon manifest in pain and swelling of the joint, and although I immediately applied twelve leeches, again, and continued the rest to the joint, I could not prevent the inflammation which had already been induced. The joint became swollen, hot and painful, and for a long time I thought that suppuration would take place in the cavity itself in spite of all my efforts, but by a strict course of antiphlogistic treatment, I succeeded in preventing this, although abscesses formed in the leg both above and below the knee, and he was confined for four months to his bed. The result was, that eventually he got off with a stiff knee, which has remained so ever since, and at one time I feared that he would lose his leg altogether, if not his life. So much for a slight indiscretion, without which I believe he would have had just as good a leg as the other patient above alluded to, inasmuch as he was, on the whole, a better subject for treatment. These cases go to show, in a very forcible manner, the effects of treatment, and also that the fondest hopes of the surgeon may be rudely dispelled by a momentary indiscretion on the part of his patient.

I will now call your attention to another series of cases in which I think great benefit was derived from the use of carbolic acid, a solution which I would have employed in treating the ones already alluded to, but with the use of which I was not acquainted at the time, and in fact it had not then reached this part of the world. Edward McG., a young man 24 years of age, while out hunting, received the contents of a gun, loaded with slugs and duck shot, in his thigh, causing thereby a compound comminuted fracture of the femur in the immediate vicinity of the hip joint. The accident occurred some fifteen miles from home, and his companions were obliged to carry him a long distance on a stretcher improvised for the occasion from some poles, and the remaining distance in a sleigh. As he lived some seventeen miles from

my residence, a considerable length of time necessarily elapsed before I saw him, and when I did, I found, upon examination, that the most of the charge had passed completely through the limb, shattering the femur in the region of the great trochanter, but not wounding any large vessel or nerve. I removed a few large slugs that were lying just under the skin, and allowed some smaller shot that were deeper to remain. His general condition was, considering the serious nature of the injury, remarkably good, and I immediately proceeded to put the limb in the straight apparatus, one that most of you are familiar with, and which is generally used in our hospital here. The portion of the thigh at the seat of injury was left exposed, for purposes of cleansing, and I applied a lotion composed of one pint of carbolic acid to thirty of water. He passed a tolerably comfortable night, and the next morning I returned home. I was, however, sent for, and obliged to return the same evening to draw off his urine, a circumstance that I feared would take place, although he passed it several times without assistance after the accident. Having relieved him, he spent another comfortable night, and progressed speedily toward recovery without one unfavorable symptom. At the end of thirteen weeks, I removed the splints altogether and allowed him to get up, and he continued rapidly to gain strength, so that in a short time he could walk a considerable distance. It is now two years since the accident occurred, and I saw him a few days ago, and with the exception of a little shortening of the leg, he is as well as ever. He worked all winter in the lumber wood, and told me that he was as strong and could work as well as before the accident, walking being the only thing that fatigued him most, and this was of course in a great measure due to the shortening. This is a little more than an inch, and although from the nature of the case, there must of necessity have been considerable, still it was in great measure due to his own conduct. Living, as he did, at a long distance from me, I could not see him nearly so often as I could wish, and when I did visit him I invariably found that he had lessened his step. When I remonstrated with him about it, he replied that he did not care about the shortening, so long as he had a strong and useful leg. And now, in reference to the carbolic acid. From the time of the accident to his final recovery, I do not think

that the wounds, caused by the shot, discharged two ounces of pus. This, I think, was mainly owing to the carbolic acid, and as an evidence of it, I may remark, that for twenty-four hours at one time he got out of his lotion, and applied alcohol and water, when the parts became much more painful, and began to discharge much more freely. As soon, however, as the lotion was re-applied, everything came back to its original state in a very short time.

Another case in which the benefit of this acid was strongly manifested, was in a case of compound comminuted fracture of the thumb. Charles H., a young man, while engaged in splitting sawn wood, cut his thumb very severely with a dull, blunt-edged axe. The wound was about one and a half inches in length, and extended completely through the thumb, splintering the first and second phalanges, and laying the joint completely open. When I first saw him I thought amputation was the only thing to be done, but upon further consideration, I determined to try and save the limb for him. I accordingly reduced the fracture as carefully as possible, and stitched the edges of the wound together, and placed the limb in a splint. I then wrapped it around with lint saturated in a similar solution of carbolic acid and water, and gave him directions to keep it constantly wet. He did, and the wound united almost altogether by first intention, there not being a tablespoonful of matter discharged during the whole time he was under treatment. This I do not think would have happened under any other kind of dressing with which I am acquainted. Another similar case was that of a child, about six years of age. This child fell on some sharp substance in the street, and had the first joint of his thumb entirely open. I saw him very soon after the accident, brought the edges of the wound carefully together, applied a splint and the same dressing. The result was union by first intention, and a perfect use of the joint. These cases go very far to prove that there is a great deal of efficiency in this drug, and although I do not think, as many would seem to, that it is a panacea for everything, yet I do think that in some cases it is of very great service, and a very valuable remedial agent. I have tried it effectually, as a dressing, in many kinds of indolent and other ulcers, and have not found it to satisfy my expectations, although by some it has been

extolled very highly in the same class of cases. I will now conclude my remarks by reference to a case which, although not bearing much on my subject, is still very interesting as a surgical curiosity. A little boy, five years old, while playing in a factory, crept under a circular-saw table, the saw of which was making at the time about three thousand revolutions per minute. He raised himself up and his head came in contact with the saw, which made a cut in the large diameter of it, and just a little to one side of the median line, exactly seven inches in length; and from the diameter of the saw, and measurements made afterwards, must have penetrated the brain substance about one and a-quarter inches. He was immediately taken to the house, and I saw him twelve hours after the accident. He was then lying on a sofa, and presented no symptoms that might not have arisen from a severe scalp wound. There were no signs of concussion or compression; his intellect was clear, and sensibility perfect. I placed him under the influence of chloroform; and having carefully cleansed the wound, brought the edges of the scalp together with silver-wire sutures. A bandage was then passed pretty tightly round the head to press the edges of the bone together, and he was removed to bed. The same carbolic acid lotion was ordered to be applied, and it was continued till recovery took place. He continued to progress favorably, no bad symptoms occurring, very slight suppuration from the wound, and in about three weeks he was entirely well. I have seen the boy since, and heard from him a few days ago, and his friends say that there is no evidence that he is in any way injured by the occurrence. This certainly is a very remarkable case, and goes to prove that where there is no *concussion* or no *compression*, no matter how much the brain itself may be lacerated, (within reasonable limits of course,) the prognosis in most instances is favorable. The only result that I fear may possibly occur in this case, at some future time in the boy's life, is *epilepsy*; and this I think might happen from some spicula of bone, at the point of union, growing down and pressing upon the brain. I have seen several of these cases occurring after compound fractures of the skull, and I therefore imagine that it might perhaps happen in this case.

I have now, gentlemen, concluded the remarks that I intend to make at present, and I hope that

I have not been tedious. I was not aware, until the committee waited on me a few days ago, that a paper would be expected from me just at present, having understood that other gentlemen had promised to supply them for some time. I have therefore had very little time for preparation, my time having been fully occupied in other ways; and I trust that you will excuse any imperfections that may appear in this paper. If I have afforded any information or instruction, I shall be much gratified. At any rate, I thank you very much for the kind attention you have manifested to me throughout.

Correspondence.

APPENDIX TO PAPERS ON A NEW REMEDY FOR DYSENTERY.

(To the Editor of the Lancet.)

STR.—Since the publication of my two papers on Dysentery in the *Edin. Med. Journal*, 1865 and 1867, now republished in the August number of the *LANCET*, cases have occurred which convince me that the medicine I have therein recommended though usually speedily successful, even where there was reason to apprehend a fatal result, yet in a very small proportion of instances, apparently not more severe than others, it failed though given near the commencement seemingly possessing in these, no control over the disease. The following from the Rev. Dr. Robb, Calabar, Western Africa, 28th Sept. 1870, shows the general reliability of the medicine, and the infrequency, nevertheless, the occurrence of failures.

"I know of hardly any cases of dysentery, even of the worst kind, where your medicine has failed. Such is its repute, that negroes with whom I have no acquaintance, come to me from distant villages asking for it; this from what I know of the inert nature of the native character, they would never do unless they had experienced striking benefit. To me the medicine is of very great value. I have been informed of a few failures in the hands of other missionaries, but my success has been so great, that I suspect some error on the part of the giver or taker." Another missionary at Calabar reports in the *United Presbyterian Record*, 1866, the confidence of the natives in the remedy; failures are not mentioned.

Like Dr. Robb, I long supposed that there was some error on the part of the giver or taker, but a few cases which came under my own care undeceived me. In some, as in those mentioned by Dr. Ogden and Dr. Clarke, the cause might be intolerance of opium, in others I have suspected individual or epidemic constitution, but a case occurred last autumn which set these theories at fault. My gardener in the autumn of 1871, was seized with dysentery, and was cured by a single dose; and in Aug. 1872, he was seized while in Toronto, and hurried home to take the medicine of which he had some doses remaining from the preceding year. These not relieving him, he sent for me. He had taken the Digitalis combination, I gave him the Squill, next gave these without opium, but the disease still getting worse, I resorted to iudandum alone, when improvement and ultimate recovery took place. His two daughters who waited upon him were seized pretty severely with dysentery, but were readily cured by the Squill combination with opium. In the father's case, the failure occurred evidently neither from intolerance of opium, nor from individual or epidemic constitution.

The rarity of failures increases the difficulty of finding the change needed to give the medicine the same power as in the great majority of cases. At one time I fancied that the substitution of Bisulphite of Soda* for Digitalis or Squills would supply the deficiency, but experience has shown that where the Digitalis and Squill combinations fail, it fails also. I flatter myself that I am now nearer the solution of the difficulty; whether I am or not may possibly be determined by this autumn's experience.—

I have received the following notes on typhoid fever from Dr. McIntyre of Hespeler, and though I have had very little experience of the medicine in such cases, it is evident that its power over discharges from the bowels, attended by ulceration of the mucous membrane, and for bringing on tranquil sleep without narcotism seem eminently to adapt it to this disease.

Dr. McIntyre has treated about fifty cases of typhoid fever with one or other of the three combinations, opium being added as long as diarrhoea was present. Though several were dangerously ill, all recovered, except one, who died from a relapse

* On Scarlet Fever, *Edin. Med. Journal*, 1870

produced apparently by improper food. The effect of the medicine may be generally stated as reducing the fever from a severe to a mild type; the disease was not arrested in any part of its course, but it was mitigated, and most probably shortened. Sleep always came on after a few doses, the pulse fell in frequency, and delirium diminished; this last did not occur when the medicine was given from an early period. In several instances the stools had a coffee ground appearance, and in others there was blood. Even where the disease was far advanced, the patient raving and much sunk; opium in the combination, always in small doses, however, did not add to the torpidity, or bring on any alarming symptom. Possibly the other ingredients act as antidotes; they appeared to possess this quality in Dr. Brown's case of dysentery, (Montreal Med. Chron. 1858, Edin. Med. Journal 1865.)

A young man, a near relative of Dr. McIntyre, on the 21st day of the disease, was so ill that his medical attendants, comprising several of the most eminent in Toronto, believed he would not live any longer than 24 hours. He was so insensible that he could not be got to put out his tongue when asked. The sphincter was relaxed, and had lost its power, the stools were therefore frequent, 10, 15, and 30 times a day, often profuse, occasionally of a coffee-ground colour, or streaked with blood, and with the urine, were voided unconsciously in bed. There were numerous petechiæ. Pulse 140.

The case having being pronounced hopeless, Dr. M. who saw him for the first time at this juncture, unhesitatingly gave 10 grains of the Digitalis combination with half a grain of opium. There was no aggravation of insensibility, and the diarrhœa ceased when he had taken about eight doses, after which the medicine was continued without opium: the greatest number of doses of the former in one day was four, and of the latter three. He soon began to sleep, insensibility diminished, and in a fortnight altogether ceased, having continued four weeks. The recovery was perfect.

WM. KERR.

Galt, August 8, 1873.

(To the Editor of the Lancet.)

SIR,—I send you a few biliary calculi which I obtained from a patient of mine. For some time prior to the passing of these, she com-

plained of numbness of the right side, irregularity of the bowels, restlessness at night, rheumatic pains in the joints, vertigo, occasional nausea, and sometimes severe pain at the epigastrium. She is a large plethoric woman about forty years of age, and of a bilious temperament. She said that she had been treated by a number of physicians without receiving any benefit. I suspected that there were calculi, and gave her the remedies prescribed by Tanner, Watson, and others without benefit. I then resolved to try a dose of Pil. Hydrag. every alternate night, and a table-spoonful of Ol. Olive, three times a day. This treatment had the effect of bringing away about 150 of such calculi as I send you.

The most striking peculiarity about the symptoms, was that the attacks of spasm of the stomach came on regularly at intervals of about a week. I directed her to have the feces examined regularly and she found by so doing that after each spasm, there were a number of calculi (varying from 6 to 30) passed during the next twenty-four hours. She is quite well now, and has been so for six months.

I might just say that I have had several opportunities of testing the value of this treatment in removing biliary calculi, and have almost invariably found it to answer the purpose better than any other remedy that I have tried. I cannot explain the *modus operandi* of the remedy, but I would like to have you try it as soon as an opportunity offers, and let me know the result.

CHAS. CHAMBERLAIN, M.D.

Leamington, Aug. 10th., 1873.

(To the Editor of the Lancet.)

SIR,—I clip the following from the *Norwood Register*. It speaks for itself. MEDICO.
Aug. 11th., 1873.

WM. PATTERSON, M.D.

Graduate American University of Philadelphia, has had two years experience in the extensive practical Surgery of the Blockley Hospital, and the Well's Eye Hospital of that city. Licentiate of Ontario and Registered Member of the College of Physicians and Surgeons. Residence, at Mr. Moffatts, Colborne St. Norwood.

IMPORTANT TO THE SICK.

You will never have a better opportunity for restoring your health than now. All who are suffer-

ing from chronic, lingering diseases, and especially those who have hitherto failed to obtain any relief, are invited to try Dr. PATTERSON, who is successfully treating diseases of the Asthma, Gravel, Dropsy, Rheumatism, Fever, Sores, Cancers, Consumption in second stages, Bronchitis, and all diseases resulting from falls, wounds and bruises.

Dr. Patterson's new method of treating Bronchitis, Swelling of the Throat and neck by Inhalation, has been attended with extraordinary success.

Perfect cure for in-growing Toenails and all diseases of the feet. New remedy warranted to prevent the teeth from decaying and arrest the progress of the teeth already injured. All who prefer sound, natural teeth to artificial ones should have it.

All who are suffering from pains in the Stomach, Side or Back, Shortness of Breath, Palpitation of the Heart, and fatigue on the slightest exertion, will do well to obtain relief before they become too deeply seated.

Dr. Patterson is prepared to visit patients in the country by night or day. Charges moderate. Apply early, that you may the sooner be restored to health.—*Novwood Register.*

[We are not at all surprised at the above exhibition. We know something of this man, and our experience of him has been fully verified. It will be observed that the Degree he professes to have, is from an Institution, whose charter has been cancelled by the legislature of Pennsylvania, and we trust the college of Physicians and Surgeons of Ontario may soon have the power to cancel the license of every such unworthy member as he shows himself to be.]—*Ed.*

(To the Editor of the LANCET.)

STR,—The announcement of Bishop's College for the present year, speaks of its attendance of twenty-five students during the first, and thirty during its second session, as a record of which no other medical school in the Dominion can boast. Trinity College Medical School, Toronto, to all intents and purposes a *new* institution, (having ceased to exist for many years, until resuscitated two years ago), had fifty-seven students in attendance during the first, and sixty during the second session,—in other words, upwards of twice as many as Bishop's College.

Wishing both Bishop's College and Trinity College medical schools all success,

I am, yours, &c.,

A "TRINITY" STUDENT.

Reports of Societies.

CANADA MEDICAL ASSOCIATION.

FIRST DAY'S PROCEEDINGS.

The 6th Annual Meeting of the Canada Medical Association was held in the Odd Fellow's Hall, City of St. John, N. B., commencing on the 6th of August.

Dr. J. A. Grant, M. P., occupied the chair. In the absence of Dr. Peltier, the Secretary, Dr. A. H. David, of Montreal, was appointed to that office. A number of gentlemen from St. John's and the lower Provinces were proposed and elected to membership in the Association. After some routine business, the President delivered an address which we print in full below. Dr. Hingston read a very able and carefully prepared paper on the "History of Surgery" in America, from the early times down to the present day. This was critically reviewed by several members and occupied the greater part of the day and evening. Dr. Botsford also read an ably prepared and very interesting paper on "Hygiene." The following are the names of the members present.—Jos. Cote, St. Vallier; J. A. Grant, Ottawa; Charles C. Hamilton, Cornwallis, N. S.; D. McN. Parker, Halifax, N. S.; J. F. Black, Halifax, N. S.; W. S. Harding, St. John; S. Z. Earle, St. John; W. W. Wickwire, Halifax; Jas. T. Steeves, St. John; S. T. Gove, St. Andrews; T. J. O. Earle, St. John; I. B. Botsford, St. John; W. W. Hingston, Montreal; A. H. David, Montreal; L. G. Turgeon, Montreal; Robert Thomson, St. Stephen; Paul R. Moor, Hopewell; Robt. Black, Wickham, Q. C.; W. Bayard, St. John; L. McLaren, St. John; Geo. E. S. Keator, St. John; F. W. Macpherson, Oromocto; J. H. Wilson, Springfield, K. C.; R. J. Lemont, Hampton; F. G. Jordan, St. John; John Waddell, St. John; E. S. Blanchard, St. John; E. A. Vail, Sussex Vale; P. Robertson, Inches, St. John; Dr. Smith, Portland; J. M. C. Fiske, St. John; J. U. Burnett, Sussex; James Christie, St. John; John Berryman, St. John; Boyle Travers, St. John; J. A. Gregory, Fredericton; G. J. Harding, St. John; Edwin Bayard, St. John; James D. Simpson, Fredericton Junction; A. B. Atherton, Fredericton; Benj. Coburn, Bright, N. B.; Thomas Walker, St. John; J. W. Daniel

St. John; J. W. Sheffield, St. John; I. G. Develer, St. John; H. E. Bousy, Memramcook; Wm I. G. Dawson, Newcastle, Miramichi; Edwin Farrel, Halifax; C. Robillard, Montreal; M. C. MacDonald, Narrows, Q.C., N.B.

THE PRESIDENT'S ADDRESS.

Gentlemen—Exactly six years have elapsed since the first organization of this Association. Our meetings up to the present have been in the Provinces of Quebec and Ontario, but on no previous occasion have we assembled under more auspicious circumstances, welcomed as we are to so favourable a position as the City of St. John, the chief commercial centre of the Province of New Brunswick. From the wide spread character of our New Dominion, we could not expect the presence of many from distant parts at these meetings; still, on every occasion, this Province as well as Nova Scotia, was ably represented; and it is a recognized fact, that to the activity, energy and ability of the gentlemen from the Maritime Provinces, who previously filled the Presidential chair, this Association owes in a great measure its present degree of usefulness. Thus we observe first in medical science, as well as in diplomatic affairs, these Provinces have taken no small part in the prosperity of the whole Dominion.

It was with no assumed feelings of humility that I expressed at our previous meeting, at Montreal, my lively sense of the responsibility of the duties that developed upon me, performed with such marked distinction by my worthy predecessors. I trust that my efforts, however inadequate, will not flag in the accomplishment of what is right and best for that noble profession in which we should be, in the strict sense of the inspired words, "members one of another." We have a common estate in the science of medicine. We have a good work before us, and we do well to acknowledge our unity and activity, in promoting, by these annual meetings, a oneness of feeling in the profession of the Dominion, and the advocacy of medical science in its most progressive form; side by side with the high-toned and intellectual members of the American Medical Association, alike interested in the advancement of medical science on the continent. Relying on the spirit which prompted you to confer on me the highest honour within the gift of the medical profession of this Dominion, I shall endeavour to discharge the duty as your presiding officer, in this position of trust and responsibility. Knowing, as I do, the great value of time in our short sessions, and how much work is expected to be accomplished. I shall confine my remarks more especially to the appropriate subjects of the occasion. At our previous meetings much time was occupied in the discussion of a Dominion Medical Act, an able draft of

which was presented by Dr. R. P. Howard, of Montreal. After a lengthy debate, the conclusion arrived at was that this measure should rest *pro tem*. That the Medical Profession of the Dominion should be united by an Act in the Commons, is a point warmly and zealously advocated by many of the ablest members of our profession. By the Confederation Act, unfortunately all matters pertaining to Education, as well as to public health, do not come within the jurisdiction of the Dominion Government, and consequently are strictly matters of local legislation. It is much to be regretted; still, by the consent of the Local Governments, much may yet be accomplished, towards bringing about those radical changes, so necessary in order to simplify, in the widest and most comprehensive sense, subjects both educational and sanitary.

In the Province of Ontario, for the first time in this country, the three bodies—Allopathic, Eclectic and Homœopathic—sat in one council and deliberated upon medical affairs. This union was considered somewhat unique by staunch old conservatives in the profession. However, when the fact became known, that during those five years not a single homœopathist or eclectic passed as such in Ontario, the reason of the union can readily be comprehended. An uniform standard of medical education was established, written and oral examinations demanded from each student, and being compulsory, was the means of directing in the proper channel many who might otherwise have found an easier entrance into the medical profession. Recently the Chief of the Homœopathic body has seen fit to withdraw from the Council of Ontario, and we anticipate that extra medical legislation may arise, in order to gratify those who consider their professional claims somewhat ignored. I merely mention the facts in order that the profession in these provinces may apprehend the nature of that union so heterogeneous and characteristic. The great aim and object of this Association is to cultivate and advance medical knowledge; to elevate the standing of medical education; to promote the best interests of the profession, and to direct public opinion, as to the duties and requirements of medical men; to encourage a fraternity of feeling in the profession in the most comprehensive sense. With these objects in view, on the present occasion three addresses will be delivered, one in Surgery, by Dr. Hingston, of Montreal; one in Medicine, by Professor Howard, of McGill University; one in Obstetrics, by Dr. Hodder, of Toronto; and one in Hygiene, by Dr. Botsford. In addition, a Gold Medal is offered for the best Essay on Zymotic diseases. We anticipate a lively discussion on many points of interests which will doubtless arise out of those papers. We look forward to a greater degree of activity in future in the Association, as general medical topics will occupy the deliberations of all

interested in work such as must tend to advance the best interests of our profession in this country.

The subject of medical education is a topic which at every meeting of this association has received well-merited consideration. Although somewhat worn, it is of such vital importance that it cannot be too frequently discussed, more especially when we observe the present manifest disposition of the rising generation to rush through a course of collegiate study, and enter into the practice of the medical profession, devoid of that literary training so requisite in order to develop those powers of thought and observation so necessary, particularly where matters of life and death are concerned.

"A profession that does not equal the age of its educational machinery, that is unable or unwilling to represent its modes of thought, and its forward tendencies in its demands from those who seek admission into its ranks, ceases to be a profession; because it loses its claims to a scientific character.

Great changes are yearly taking place in the progress of human thought and human industry, and in each department of science, only those methods are recognized which rest on an educational basis. A defective preliminary education is the first and undoubtedly the great error in the present system of medical education. There should be one standard of preliminary education exacted in all the Provinces, from those who desire to enter the medical profession. A greater degree of uniformity now exists, than prior to our discussions on this subject. So long as there is a diversity of interest in matters educational, difficulty will attend the bringing about of that uniformity which would be arrived at by a Dominion Medical Act. Important changes are usually slow in their development, yet we look forward to the time when we shall have one chief educational centre, so guiding and directing the medical profession of this entire Dominion as to build up an enlightened opinion, such as the members of this Association have at heart. While recognizing the progress of medical education in each Province, and the marked ability of those active in imparting a sound medical training, we must await the spontaneous action of all, alike interested, to extend the principles of confederation we now enjoy, so as to unite us as a profession, strengthen our position as a body, and thus increase our sphere of usefulness.

There is a point to which I would now desire call the attention of this Association, viz., the advisability of having thoroughly trained female nurses. In private as well as in hospital practice we constantly experience a great want in this respect. In each of the large cities having extensive hospital accommodation, some system might be inaugurated by which those desirous of becoming skilled nurses might avail themselves of the facilities offered, and in course of time supply a deficiency now generally felt in the practice of the

profession; such skilled nurses to obtain certificates of qualification and fitness for the position of honor and trust. Every town and city in the Dominion would gladly encourage the employment of such talent, and in that sphere woman would occupy her true position as the administrator of the prescribed medicines, capable as she is of those soothing, delicate and kindly attentions, so necessary at the sick bedside, and so cheering and gratifying to the patient. Miss Nightingale has thus fully expressed her ideas:

"I think the Anglo-Saxon would be very sorry to turn woman out of his own house, or out of civil hospitals, hotels, institutions of all kinds, and substitute men-housekeepers and men-matrons. The contrast between even naval hospitals, where there are female nurses, and military hospitals, where there are none, is most striking in point of order and cleanliness."

In points of sanitary domestic economy, woman carries off the palm, and, by her tidiness and cleanliness, establishes a degree of order seldom seen without her. The cheering look, the tender hand, the watchful eye, and the innate powers of observation, are such, that many little necessities for the sick patient are carefully thought of, that might escape the sterner powers of the skilled and educated physicians.

The Sisters of Charity, who officiate as nurses in the Catholic hospitals of the Dominion, have, by their skill, dexterity and general neatness, earned a well-deserved reputation. Why should not the Protestant Institutions of Canada have a sisterhood alike charitable and philanthropic?

The subject of medical evidence in courts of law is one possessing no ordinary degree of interest. The value of such evidence in questions involving the causes of death, by unknown means, has been long recognised as having attained, with the various achievements of science, a remarkable degree of accuracy.

The position of the scientific expert is one of great importance. His deductions are based on a sound knowledge of human structure, of the laws which regulate the organic functions; of the chemical laboratory in the system, possessing an action and reaction peculiarly its own: and of the disturbing forces, which induce death, under extraordinary circumstances. The courts of law at home and abroad consider such testimony of great value, and upon it frequently hinge matters of life or death. In carrying out such investigations, both a thoroughly scientific knowledge and a perfectly disinterested mind are necessary. The great aim and object in view is to bring to the surface the principles of truth and honour, no matter how trying the attendant circumstances. Medical men should bear in remembrance the responsible and dignified position they are called upon to fill in medical enquiry. It is not upholding the status of

our profession to find its members become partisans in courts of law. Cases of malpractice are not fortunately of frequent occurrence, and when such do arise, the professional man should never be found occupying an unenviable position, as the instigator of enquiry for purely selfish and personal motives. The whole profession suffers by disregard to ordinary professional courtesy. In courts of law our opinions wield a recognized power and influence; and it is gratifying to observe, that in the various medical schools the subject of medical jurisprudence is receiving well deserved consideration. Through the various medical Societies any irregularities in the law courts should be reported, and, by this Association a power exercised that would be productive of the most beneficial results. Regularities as well as irregularities should be noted by those interested in the welfare of the medical profession. In Canada we are yearly enlarging and increasing our medical periodicals, which give evidence of improvement by the abundance, variety and general excellence of the various contributions and selections. How is our Canadian Medical literature to be supported? This is a question which must strike forcibly the most ordinary observer. In the larger cities as well as the rural districts there are those who, from their position, experience and knowledge of matters medical, could do much towards building up in this country such an expression of opinion as would tend materially to strengthen and consolidate the very best interests of our profession. It is generally acknowledged that there are more medical journals than receive remunerative support, and that much labor, zeal and self-sacrifice are necessary on the part of both editors and publishers in order to promote the vitality of this form of medical literature. Such efforts are worthy of the highest commendation, for by means of local medical journals many facts are brought to light which otherwise might have passed unrecorded. In Canada, as in Great Britain, hospital reports are yearly acquiring a greater degree of importance, and our medical students are being stimulated thus towards the cultivation of one of the most necessary branches of study, viz., to observe rightly and report intelligently. The country as well as the city practitioner should contribute regularly to our journals. The city, with its extensive hospitals, large libraries, well organized medical societies, has very great advantages; and yet it has been remarked by an able writer in favor of the country medical man, that "*original thought is usually best cultivated in comparative solitude.*" A high degree of excellence in medical journalism can scarcely be expected in so new a field of enquiry; and considering the efforts put forth to fan into vitality such able journals as the *London Lancet* and *London Medical Times and Gazette*, *Edinburgh Medical Journal*, and others of like celebrity, we should not be discouraged. In the recording of medical

facts, it is prudent and right that such should be communicated plainly, avoiding, as far as possible, newly-coined words and abstruse phrasology, which in no way whatever will be acceptable to the plain, common sense practitioner. It is common sense which is most required at the sick bedside; it is this sense after all which achieves the greatest degree of success, educated, enlightened, and elaborated through the various scientific achievements and astounding discoveries of this age of progress. Every physician in regular practice in city and country, should not only take one or more medical journals, but contribute as well. A large and lucrative practice, a high and influential position, are not alone sufficient to perpetuate a worthy name and reputation. These are perishable, and will die out, when well-timed and well-recorded facts will last, and establish true and genuine worth. Zimmerman remarked "*that the greatest medical writers of any age were the best physicians.*" Those who communicate their views should rather be encouraged than decried. It is quite unnecessary to urge upon those who read the best medical journals, the importance of such publications. It is high time that those who fancy they can learn nothing from medical journals, should retire and leave the field to those more willing in every respect to keep pace with the progress of medical science in its various departments. Let us then as an Association encourage and uphold our journals, and contribute in every possible way towards building up and sustaining so worthy and so requisite a branch of literature.

In conclusion I would merely advert briefly to the subject of Sanitary Science, identified as it is with national progress, and surrounded at present with more than an ordinary degree of interest. We are daily in possession of telegraphic news as to the prevalence in the Southern States of a much dreaded disease. Under such circumstances, I cannot permit this opportunity to pass without calling upon all interested to bring about, in every possible way, such sanitary measures as will tend to lessen the spread of cholera, should we be so unfortunate as to have a visitation of that disease. In the absence of danger, sanitary measures are frequently lost sight of, and even a moderate expenditure is a sufficient cause for the delay observed in carrying into operation the necessary precautions. While there is no occasion for alarm, there is a necessity for action on the part of health authorities. Mr. Simon, the Medical Officer of the Privy Council of England, says:

"The dangers which particularly have to be guarded against, as favoring the spread of cholera contagion, are particularly two: first, and above all, there is danger of water supplies, which are in any degree tainted by house refuse or other like kinds of filth, as where there is overflow, leakage, or filtration, from sewers, house drains, cesspools, foul ditches, or the like, into streams, springs, wells

or reservoir, from which the supply of water is drawn, or into the soil of which the wells are situated,—a danger which may exist on a small scale at the pump of a private house, or on a large scale, in the source of supply of public waterworks, and, secondly, there is the danger of breathing air which is foul with effluvia from the same sorts of impurity."

Filth percolating into well water is a very fertile source of disease. The report of Dr. Ballard, of Islington, concerning the propagation of enteric fever, by milk polluted with enteric fever poison, through leakage into the well which supplied the cattle with water, is conclusive evidence as to the occasional origin of so trying a disease.

The subject of sanitary legislation is one of vast importance as much as by preventable diseases, thousands of lives are lost which might be saved annually. We require fresh air, pure water and clean food; this brought about, even in a moderate degree, would confer an inestimable blessing on society at large. So strongly impressed are the members of the American Medical Association on this subject, that at their last meeting, in St. Louis, in June, a strong resolution was passed recommending the establishment of a "National Sanitary Bureau," with relation to the general Government at Washington, similar to the Bureau of Agriculture. It is quite evident considerable new life must be thrown into this subject, and should sanitary regulations be thoroughly and systematically carried out, by skilled operatives, the advantage which would accrue to this Dominion would be beyond computation. An enlightened opinion would thus be built up, through the exercise of which we might possibly effect such sanitary changes as would be most conducive to the best interests of the general public.

Gentlemen of the Canada Medical Association, —We have assembled here for very important purposes, the eyes of the community at large are upon us, watching, cheering and guiding us along in the performance of duty. At best we have only a few short years before us, and in the multiplicity and diversity of work, a single life can accomplish but little. Let that little be well done, keeping steadily before us the remarkable and striking aphorism of Hippocrates, which has been paraphrased by one of our greatest lyrics:—

"Art is long and time is fleeting;
And our hearts, though stout and brave,
Still like muffled drums are beating
Funeral marches to the grave."

SECOND DAY'S PROCEEDINGS.

The Association met at 10 o'clock, Dr. Grant in the chair.

The first business was the reception of the report of the nominating committee.

Dr. Hamilton, the chairman of the committee, presented the following report:—

President—Dr. Marsden, Quebec.

Vice-President for Ontario—Dr. H. H. Wright, Toronto

Vice-President for Quebec—Dr. Hingston, Montreal.

Vice-President for Nova Scotia—Dr. Jennings, Halifax.

Vice-President for New Brunswick—Dr. S. Z. Earle, St. John

Gen. Secretary of Association—Dr. David, Montreal.

Gen. Treasurer of Association—Dr. Robillard, Montreal.

Corresponding Secretary for Ontario—Dr. J. Fulton.

Corresponding Secretary for Quebec—Dr. A. J. Belleau.

Corresponding Secretary for Nova Scotia—Dr. J. F. Black.

Corresponding Secretary for New Brunswick—Dr. G. E. S. Keator.

The following committees were appointed on the subjects named:—

Prize Essay Committee—Drs. David, Howard, Fenwick, Rottot and Peltier.

Medical Education—Drs. Grant, Howard, Wm Bayard and Parker.

Medical Literature—Drs. Black, Fenwick, Dagenais, Farrel, Bethune, McIntosh, Fulton, Oldright, Wickwire, Russell and Hamilton.

Necrology—Drs. Campbell, Canniff, Harding and DeWolfe.

Publication—Drs. David, Robillard, Campbell, Trenholme, Dagenais, Hingston and Peltier.

Auditing Committee—Drs. Fenwick, Peltier and Turgeon.

The following gentlemen were appointed to write essays on medicine, surgery, ophthalmology, and new remedies, to be read at the next meeting:—

Dr. Howard, on medicine; Drs. Farrel and Fenwick, on surgery; Dr. Trenholme, on midwifery; Drs. A. T. Reid and Brosseau, on hygiene; Drs. Desjardin and Rosebrugh, on ophthalmology; Drs. Berryman and G. A. Hamilton, on new remedies; and Dr. Hingston, on mercury.

A discussion then took place upon the report of the committee appointed to prepare amendments to the constitution and by-laws, which were allowed to remain as they were.

Dr. Wm. Bayard brought before the Association a little girl who had been afflicted with a very peculiar, interesting and rare injury, namely, the fracture and ultimate elimination of the odontoid process of the axis. The Dr. made some interesting remarks upon the treatment of the case and upon the case itself, which was examined with much interest by the members present. The treatment

of this formidable case was quite successful, and the little girl was in good health.

A committee was appointed, on motion of Dr. Botsford, seconded by Dr. Travers, to bring the subject of vital statistics before the notice of the Dominion Legislature, for action thereon, consisting of Drs. Grant, Tupper, Hamilton and Rottot, and the President, *ex officio*.

The thanks of the Association were passed to the steamboat and railroad companies for courtesies, etc., to the Odd Fellows for the use of their hall, also to the members of the Association in New Brunswick for favors received.

At one o'clock the Society, accompanied by a number of invited guests, visited the Lunatic Asylum, to partake of a lunch on the grounds. A special train was provided for the occasion. The luncheon, which was served up in a spacious and beautiful chamber in one of the wings of the Lunatic Asylum Building, was one of the most agreeable re-unions ever held in this part of Canada. It was given by the members of the Medical Profession of St. John to their brethren of the other provinces and other guests, and was graced by a large attendance of ladies. Dr. Steeves, Vice-President of the New Brunswick Association, occupied the chair, supported on the right and left by His Honor the Lieut. Governor, Dr. Grant, M.P., Hon. Edward Willis, the Mayor, Drs. David and Hingston, and John Boyd, Esq., and others. Among the other guests were J. Edmond Barbeau, Montreal, the High Sheriff, Luke Stewart, Thomas Furlong, William Jack, Silas Alward, H. Lawrence Sturdee, G. R. Pugsley, Esq., besides editors of the morning and evening papers and others. Drs. Botsford, Waddell and Travers occupied the vice-chairs.

The chairman said that as he supposed the company would rather address themselves to the "solids and liquids" before them, than be addressed at length, he had his speech printed to save trouble. There it was, pointing to the word Welcome, printed in evergreens. (Cheers.)

Grace was said by Rev. D. Scovil.

After luncheon, the usual loyal toasts were proposed, including those of the Queen, the Governor General, and the Lieut. Governor and his Council.

The last named toast was proposed by Dr. Waddell, Medical Superintendent of the Asylum, who remarked that the Governor was Attorney General when he was appointed superintendent, and the institution had ever been warmly supported by the Government. (Cheers.)

The Governor made one of his most telling speeches, narrating humorously the narrow escape he had from the medical profession because he could not speak well (laughter, and from curing or killing great numbers, (laughter). He seemed to think that imagination had a good deal to do with the effect of medicine, and gave a humorous illus-

tration of a very harmless kind of pill, which a lady had used with the happiest results. He then branched out into a grand stirring national speech, which delighted every one, in the course of which he paid an eloquent and just tribute to the medical profession. He concluded by giving the health of Dr. Grant, President of the Canada Medical Association.

Dr. Grant ably responded. He spoke of the gratification he had in visiting this fine mercantile emporium, with its magnificent harbour, and social and intelligent people. He spoke of the growth of the association, and said they never had enjoyed a more cordial reception than in St. John. He hoped the Maritime Physicians would accept a return in OTTAWA. (Cheers.) He concluded by expressing his best wishes for St. John, and asking to hear from Dr. Botsford. (Cheers.)

Dr. Botsford responded, and proposed "Our Visiting Brethren," selecting Dr. Hingston as his victim, and designating him as a rather confirmed bachelor.

Dr. Hingston made a most amusing response. He said he would not make a state speech, for in that case they would know it was prepared before hand, or perhaps already sent to press like the Governor's and Dr. Grant's (great laughter). After convulsing the company for some time, and declaring that he had nearly succumbed to the influences of the fair sex, he retaliated on Dr. Botsford, stating that when he glided into matrimony, he intended to follow Dr. Botsford's example in every particular.

Speeches in the same happy strain, in response to various toasts, were made by Drs. Robillard, David, Wickwire, Hamilton, Bayard, Walker, Travers, and Waddell, and some very excellent and amusing speeches were also made by the Mayor, members of the press, and others.

The members of the band (late of the 62nd Battalion) added much to the pleasure of the company, by playing at intervals a fine selection of marches, waltzes, galops, quartettes, &c., winding up with the national anthem.

The party returned to the city in the evening, having spent the afternoon most agreeably and profitably.

It was arranged that the next meeting of the Association should take place at Niagara Falls, on the first Wednesday in August, 1874.

SCISSORS Some cases of this disease, which had resisted a variety of treatment, were cured at Bellevue Hospital, *almost at once*, by the hypodermic injection of morphia over the seat of pain, plunging the needle deep into the tissues, perhaps to the depth of one or one and a-half inches - *N. Y. Medical Record*.

Selected Articles.

RULES OF THE OBSTETRICAL SOCIETY OF PHILADELPHIA FOR THE MANAGEMENT OF CHILDREN DURING THE HOT SEASON.

RULE 1.—Bathe the child once a day in tepid water. If it is feeble, sponge it all over twice a day with tepid water, or with tepid water and vinegar. The health of a child depends much upon its cleanliness.

RULE 2.—Avoid all tight bandaging. Make the clothing light and cool, and so loose that the child may have free play for its limbs. At night undress it, sponge it, and put on a slip. In the morning remove the slip, and dress the child in clean clothes. If this can not be afforded, thoroughly air the day clothing by hanging it up during the night. Use clean diapers, and change them often. Never dry a soiled one in the nursery or in the sitting-room, and never use one for a second time without first washing it.

RULE 3.—The child should sleep by itself in a cot or cradle. It should be put to bed at regular hours, and be early taught to go to sleep without being nursed in the arms. Without the advice of a physician, never give it any *spirits, cordials, carminatives, soothing-syrups, or sleeping-drops*. *Thousands of children die every year from the use of these poisons*. If the child frets and does not sleep, it is hungry or ill. If ill, it needs a physician. Never quiet it by candy or cake; they are the common cause of diarrhoea, and of other troubles.

RULE 4.—Give the child plenty of fresh air. In the cool of the morning and evening send it out to the shady sides of broad streets, to the public squares or to the Park. Make frequent excursions on the rivers. Whenever it seems to suffer from heat, let it drink freely of ice-water. Keep it out of the room in which washing or cooking is going on. It is excessive heat that destroys the lives of young infants.

RULE 5.—Keep your house sweet and clean, cool and well aired. In very hot weather let the windows be open day and night. Do your cooking in the yard, in a shed, in the garret, or in an upper room. Whitewash the walls every spring, and see that the cellar is clear of all rubbish. Let no slops collect to poison the air. Correct all foul smells by pouring carbolic acid or quick-lime into the sinks and privies. The former article can be got from the nearest druggist, who will give the needful directions for its use. Make every effort yourself, and urge your neighbours, to keep the gutters of your street or court clean.

RULE 6.—*Breast milk is the only proper food for*

infants. If the supply is ample, and the child thrives on it, no other kind of food should be given while the hot weather lasts. If the mother has not enough, she must not wean the child, but give it, besides the breast, goat's or cow's milk, as prepared under Rule 8. Nurse the child once in two or three hours during the day, and as seldom as possible during the night. Always remove the child from the breast as soon as it has fallen asleep. Avoid giving the breast when you are overfatigued or overheated.

RULE 7.—If, unfortunately, the child must be brought up by hand, it should be fed on a milk diet alone, and that, warm milk out of a nursing-bottle, as directed under rule 8. Goat's milk is the best, and next to it, cow's milk. If the child thrives on this diet, *no other kind of food whatever should be given while the hot weather lasts*. At all seasons of the year, but especially in summer, there is no safe substitute for milk to an infant that has not cut its front teeth. *Sago, arrow-root, potatoes, corn-flour, crackers, bread, every patented food and every article of diet containing starch, can not and must not be depended on as food for very young infants*. Creeping or walking children must not be allowed to pick up unwholesome food.

RULE 8.—Each bottleful of milk should be sweetened by a small lump of loaf sugar, or by half a tea spoonful of crushed sugar. If the milk is known to be pure, it may have one fourth of hot water added to it; but, if it is not known to be pure, no water need be added. When the heat of the weather is great, the milk may be given quite cold. Be sure that the milk is unskimmed; have it as fresh as possible, and brought very early in the morning. Before using the pans into which it is to be poured, always scald them with boiling suds. In very hot weather, boil the milk as soon as it comes, and at once put away the vessels holding it in the coolest place in the house—upon ice if it can be afforded, or down a well. Milk carelessly allowed to stand in a warm room soon spoils, and becomes unfit for food.

RULE 9.—If the milk should disagree, a table-spoonful of lime-water may be added to each bottleful. Whenever pure milk cannot be got, try the condensed milk, which often answers admirably. It is sold by all the leading druggists and grocers, and may be prepared by adding, without sugar, one tea-spoonful, or more, according to the age of the child, to six table-spoonfuls of boiling water. Should this disagree, a tea-spoonful of arrow-root, of sago, or of corn-starch to the pint of milk may be cautiously tried. If milk in any shape cannot be digested, try, for a few days, pure cream diluted with three fourths or three fifths of water—returning to the milk as soon as possible.

RULE 10.—The nursing-bottle must be kept perfectly clean; otherwise the milk will turn sour, and the child will be made ill. After each meal

it should be emptied, rinsed out, taken apart, and the tube, cork, nipple, and bottle be placed in clean water, or in water to which a little soda has been added. It is a good plan to have two nursing bottles, and to use them by turns.

RULE 11.—Do not wean the child just before or during the hot weather, nor, as a rule, until after its second summer. If suckling disagrees with the mother, she must not wean the child, but feed it in part, out of a nursing-bottle, on such food as has been directed. However small the supply of breast milk, provided it agrees with the child, the mother should carefully keep it up against sickness: it alone will often save the life of a child when everything else fails. When the child is over six months old, the mother may save her strength by giving it one or two meals of stale-bread and milk, which should be pressed through a sieve and put into a nursing-bottle. When from eight months to a year old, it may have also one meal a day of the yolk of a fresh and rare-boiled egg, or one of beef or mutton broth into which stale bread has been crumbled. When older than this, it can have a little meat finely minced; but even then milk should be its principal food, and not such food as grown-up people eat.

For the convenience of mothers, the following receipts for special forms of diet are given:

Boiled Flour, or Flour Ball.—Take one quart of good flour, tie it up in a pudding-bag so tightly as to get a firm, solid mass, put it into a pot of boiling water early in the morning, and let it boil until bed-time. Then take it out and let it dry. In the morning, peel off from the surface and throw away the thin rind of dough, and, with a nutmeg-grater, grate down the hard dry mass into a powder. Of this, from one to three tea-spoonfuls may be used, by first rubbing it into a paste with a little milk, then adding it to about a pint of milk, and, finally, by bringing the whole to just the boiling point. It must be given through a nursing-bottle.

An excellent food for children who are costive in their bowels may be made by using bran-meal or unbolted flour instead of the white flour, preparing it as above directed.

Rice-Water.—Wash four table-spoonfuls of rice, put it into two quarts of water, which boil down to one quart, and then add sugar and a little nutmeg. This makes a pleasant drink.

A half-pint or a pint of milk added to this, just before taking it from the fire, and allowed to come to a boil, gives a nourishing food suitable for cases of diarrhoea.

Sago, tapioca, barley, or cracked corn can be prepared in the same manner.

Beef-Tea.—Take one pound of juicy, lean beef, —say a piece off the shoulder or the round,—and mince it up with a sharp knife on a board or a mincing-block. Then put it with its juice into an earthen vessel containing a pint of tepid water, and

let it stand for two hours. Strain off the liquid through a clean cloth, squeezing well the meat, and add a little salt. Place the whole of the juice thus obtained over the fire; but remove it as soon as it has become browned. Never let it boil; other wise most of the nutritious matter of the beef will be thrown down as a sediment. Prepared in this way, the whole nourishment of the beef is retained in the tea, making a pleasant and palatable food. A little pepper or allspice may be added if preferred.

Mutton-tea may be prepared in the same way. It makes an agreeable change when the patient has become tired of beef-tea.

Raw Beef for Children.—Take half a pound of juicy beef, free from any fat; mince it up very finely; then rub it up into a smooth pulp either in a mortar or with an ordinary potato-masher. Spread a little out upon a plate and sprinkle over it some salt, or some sugar, if the child prefers it. Give it with a tea-spoon or upon a buttered slice of stale bread. It makes an excellent food for children with dysentery.

At a meeting of the Obstetrical Society of Philadelphia, held April 3rd, 1873, the undersigned committee was appointed "to Consider the Causes and the Prevention of Infant Mortality during the Summer Months." The foregoing rules, drawn up by this Committee, were revised and adopted by the Society at a meeting held May 1st, 1873, and ordered to be published.

DR. WILLIAM GOODELL, *Chairman.*

DR. J. FORSYTH MEIGS.

DR. JOHN L. LUDLOW.

DR. ALBERT A. SMITH.

DR. JOHN S. PARRY.

DR. WILLIAM F. JENKS.

—(*Medical Times.*)

THE CERTIFICATES OF FAMILY PHYSICIANS.

BY WILLIAM C. WEY, M.D., ELMIRA, N. Y.

An engagement between a physician and his patient, in its mutual obligations, is as binding, morally and legally, as any other implied contract, and the failure of either party to perform makes him liable for the consequences of his dereliction. In this respect the profession of medicine possesses no advantages over the trades or the ordinary commercial relations of society. Estimated by such a standard, medicine, while advanced to the dignity of a profession, is surrounded by and made subservient to the laws and usages which govern the arts and crafts, and is usually amenable to judicial review, discipline, and punishment. Unlike the arts and crafts, however, medicine is obedient

to a law within itself, which may or may not find expression in a code of carefully-prepared rules. Long before a written code of ethics found favor in the profession, which is a very modern suggestion, a sense of personal or individual honor among physicians served to keep inviolate the nature and terms of the engagement or contract between them and their patrons. The force and character of this agreement, though not strengthened by a written code, simply finds amplification in its precepts and declarations.

In a better, in one sense, though not in a more scientific or learned age, when a higher standard of honor prevailed, a written code was not required. Ignorance of professional ethics could not be accepted in extenuation of their violation. In a looser period, with cheapened education, and, as a consequence, diminished honor and responsibility, a code of rules became necessary for the purpose of keeping the ranks in the profession informed and educated up to the standard of accountability current among the wiser and more loyal members of the brotherhood. In these days, as in former days, with or without a written code, a few lead the way, and the many follow or disregard the call, as they are impelled by education, habit, policy, or some other motive.

I am led to consider this subject in connection with the question—"Ought a family physician to grant a certificate in case of application for life insurance?"

I have no hesitation in asserting that it is no part of his duty to furnish information to a life insurance company in respect to the health of individuals who may have placed themselves under his professional care. Not only is it no part of his duty as a medical man, but it is virtually a betrayal of the trust and confidence imposed in unreserved relations between patient and physician.

Even with knowledge that the person to be insured is, and always has been, in such absolute health as to make reply to the questions asked on such an occasion a mere matter of form, and an endorsement of his physical and mental state, like endorsement of his credit or character, it is quite as much a professional act and service as if the physician's statement raised a doubt in respect to the integrity of the applicant's pulmonary or psychological functions.

If it is a friendly office purely, it carries professional significance along with it, thereby violating obligation on the one hand under cover of a personal favor, and communicating valuable information to a life insurance company on the other.

If the certificate is given for a fee, paid indifferently by the party seeking to be insured or by the company, it suggests an imputation that a monied compensation may influence the judgment to be rendered. This objection, in view of the paltry sum usually paid by an insurance company, is

scarcely worthy of consideration. In the former case it may be well to observe that an opportunity is offered an unscrupulous applicant and an equally unscrupulous "family physician" to combine, and for a purpose to produce a certificate, which shall reveal a standard of health upon which a policy of insurance will be sure to follow. If a physician, occupying the position of medical examiner for a highly reputable life insurance company, was found so culpable and criminal as to recommend a consumptive, in the last stages of disease, as a first-class risk, on whose life a policy was issued, it is not difficult to conceive of collusion between an applicant and a family physician prompted by motives equally offensive and condemning.

It is exceedingly disagreeable to dwell on this feature of the subject, as evidencing loose morals in the profession. An ideal standard of medicine takes no cognizance of such illustrations of baseness. Every-day practical experience with the profession as it is, and not as it should be, or indeed as it would be, if raised to an even or uniform basis by education, has forced upon us the unwelcome conviction that, in spite of codes and journals and books and teaching from an endless variety of sources, the *average* men in our ranks are not above suspicion of being governed by selfish and mercenary motives.

The opinion of a reliable family physician, far beyond the recommendation of a medical examiner, carries weight with a life insurance company. Hence the importance of obtaining his approval of a risk. Paradoxical as it may appear, the physician knows the applicant, the corporeal applicant, more intimately than he knows himself. In the undisguised character of patient, his physical, mental and moral attributes have been clearly revealed to his attendant. Nothing has been withheld, simply for the reason that to keep back information would limit the ability of the physician to render prompt and efficient aid and service.

Considering the confidential relations thus engendered and the value of the information acquired by the physician, and the usual questions asked in this connection by a life insurance company—"Have you been in the habit of seeing him frequently? Have you given him medical attendance? If so, for what diseases?"—must appear like an attempt harshly to invade the precincts of the sick-room, and cause the medical attendant to betray the interests of those who have implicitly confided in his truth and honor.

The questions above given cover the whole ground of a physician's intimate intercourse with his patient, laying bare his responsible and guilty acts as well as the intimacies for which he is not accountable.

Surely it is not the object of life insurance companies to seek to compromise the office of family physician, or to invite, or for compensation to

engage, him to do violence to his scruples and convictions. The custom of requiring a family physicians certificate in application for life insurance was established as a matter of business, without considering the nature of his engagement to his patient or the extraordinary demand which it exacted.

It is remarkable that a common professional sentiment did not, long ago, protest against such an attempt to procure information, on the ground, already mentioned, of infraction of ethics, and disregard of individual obligation and propriety. That a more correct estimate of this question is current in the profession I am disposed to believe, from pretty large observation among my colleagues, and from the more general extension of life insurance interests in every city, village, and hamlet in the State. The subject is thus brought directly to the attention of medical men, and they are compelled to give it more than usual scrutiny,—such scrutiny as embraces the delicate nature of the duties of the family physician in a specific as well as in a more enlarged and comprehensive field.—*Medical Record.*

WHAT IS CINCHO-QUININE?

[This question is often asked by physicians who have not been made acquainted with the nature of this important agent, and therefore we republish the following article, which appeared in the *Boston Journal of Chemistry*, and which presents in a clear and explicit manner its nature and uses:—

The chemical manipulation of the Cinchona or Peruvian barks reveals the presence in them of quite a number of most remarkable, complex bodies. No vegetable production, except the poppy, affords such a marvelous combination of valuable medicinal principles as the *loxa* and *calisaya* barks, and no substances have been studied with greater care or more intense interest by chemists. Nothing short of the subtle chemical forces controlled by the Infinite One could construct from the elements of the earth and air a bitter principle like quinia, or those other agents associated in bark, so closely allied to it physically and chemically. A handful of the finely comminuted fibres of the yellow bark, which resembles physically a dozen other varieties, is made to yield by the chemist, when treated with aqueous and alcoholic liquids and acids, a dark, bitter solution, unattractive in taste and appearance. If the process is skilfully conducted, or exhaustive in its results, there remains, beside the solution, a portion of woody fibre, inert and almost tasteless. It holds considerable coloring and some waxy matter, together with a little tannin; but the active chemical or medicinal principles have been removed, and

are held in the dark liquid. The exhausted bark is not entirely worthless, for it may be dried and used as fuel. But what of the dark liquid? From this the chemist obtains, besides other substances, a portion of beautiful, white, silky crystals; not wholly of one distinct kind, but of several, all of which possess about equal chemical and therapeutical importance. No wonder it seems to the uninitiated in chemical manipulation a difficult work to perform. It is, however, quite easy to the thoroughly instructed. The first principle isolated may be the quinia. This is not held in the bark in its naked alkaloidal condition, but locked up, in the form of a salt, with another principle called *kinic acid*. In the bark it is *kinate of quinine*. We isolate the quinia, tear it from its embrace with kinic acid, throw that away, force it into a kind of matrimonial alliance with sulphuric acid, and in this condition of *sulphate of quinia*, use it as a medicine. This kinic acid marries into several other families resident in the bark, prominent among which are *cinchonia*, *cinchonidia*, *quinidia*, etc. Precisely how many of these alkaloidal principles the different kinds of barks contain, is unknown; but it is safe to assume that there are as many as four others which, although not distinctly pointed out, are tolerably well recognized. These *kinates* are all *kindred* in nature, and all labour to the same end, when isolated and set to work as therapeutical agents in the human system.

In one hundred ounces of good yellow bark, we obtain about two and three fourths ounces of quinia, and two ounces of cinchonia, with variable amounts of the other principles, but less than the two named. It is to be regretted that we cannot remove the different families of kinates from the bark in their natural state of saline combination. It seems reasonable to suppose their action upon the system would be more salutary than in other forms. It is easy to isolate the kinic acid, and having the alkaloids, the kinates of quinia, cinchonia, etc., can be re-formed; but in these chemical changes so much disturbance to natural organic combinations is made, that, practically, we realize no marked advantages. It seems unnatural to force a natural alkaloidal base out of its association with an organic acid, and re-combine it with a mineral acid. This we do in the preparation of the sulphate of quinia. However, as it has served so good a purpose for many years, it is not best to quarrel with the theory.

All the alkaloids of bark possess about equal febrifuge and tonic properties, when isolated and administered in that condition. This has been proved over and over again by all competent chemists and physicians, from Drs. Gomez, Duncan, Pelletier, Caventou, down to the time of Liebig's researches, a quarter of a century ago, and from that time to the present by a hundred careful chemical and medical observers.

How the one alkaloid, quinia, came to supersede the others, and drive them into the background, is easily understood, when we remember that it was about the first that was distinctly eliminated, studied, and experimented with; and the *salut* it acquired caused everything else to be neglected. The natural bark, holding all the alkaloids, the quinia, cinchona, quimida, etc., has always been observed to produce more efficient and prompt results, both as a tonic and febrifuge, than the quinia, or either of the other principles in themselves; but holding also, as it does, tannin, gum, starch, fibrine, and coloring matter, all of which are medicinally interfering or inert, its use is rendered inconvenient and inadmissible in many cases. Besides, it is apt to produce disturbance of the gastric functions of an unpleasant character. Acting upon the idea that the natural alkaloidal principles of bark, in their simple, unchanged condition, separated from the gross, woody, and other matters, would better subservise all therapeutical ends than the barks themselves, or any one of the alkaloids separately employed, Cincho-Quinine has been prepared.

Cincho-Quinine contains no external agents, as sugar, honey, starch, magnesia, etc. It is wholly composed of the bark alkaloids: 1st, quinia; 2nd, cinchonia; 3rd, quimida; 4th, cinchonidia; 5th, other alkaloidal principles present in barks, which have not been distinctly isolated, and the precise nature of which are not well understood. In the beautiful white amorphous scales of Cincho-Quinine, the whole of the active febrifuge and tonic principles of the cinchona barks are secured without the inert, bulky lignin, gum, etc. It is believed to have these advantages over sulphate of quinine:

1st. It exerts the full therapeutic influence of sulphate of quinine, in the same doses, without oppressing the stomach or creating nausea. It does not produce cerebral distress, as sulphate of quinine is apt to do, and in the large number of cases in which it has been tried, it has been found to produce much less constitutional disturbance.

2nd. It has the great advantage of being nearly tasteless. The bitter is very slight, and not unpleasant to the most sensitive, delicate woman or child.

3rd. It is less costly than sulphate of quinine. Like the sulphate of quinine, the price will fluctuate with the rise and fall of barks, but it will always be less than the lowest market price of that salt.

4th. It meets indications not met by that salt.

THERAPEUTIC REVIEW.

The *Rivista Clinica di Bologna* gives occasionally an admirable summary of therapeutics, from which we borrow some paragraphs.

Carbolic Acid has been praised in prurigo and pruritus, subcutaneously injected in doses of about

one centigramme of the acid mingled with water. It has been used externally in acute articular rheumatism as a liniment mingled with linseed oil.

Arsenic has been recently recommended in cases of strumous enlarged glands of the neck, and also in pellagra.

Bromine—Inhalations of bromine have been used in croup and diphtheritis: 30 centigrammes of bromine, 30 of bromide of potassium, and 150 grammes of water are combined in a lotion, and a sponge imbibed with this fluid is placed before the patient's mouth for five or ten minutes every hour.

Bromide of Iron is employed by some in cases of spermatorrhea and involuntary seminal emissions, in doses of fifteen to twenty-five centigrammes occasionally, and, before the patient goes to sleep, in a dose of fifty centigrammes.

Bromide of Potassium has recently been used in cases of the sickness of pregnancy, and in cases of leucorrhoea, effecting cure in less than two months in the latter case. It is useful in summer diarrhoea in infants, in doses of three centigrammes every two hours.

Bromide of Sodium has a similar efficacy to that of bromide of potassium in epilepsy, and proved a cure in one case of tetanus.

Coffee has been given in infusion in cases of infantile typhus fever.

Conium has been used successfully in cases of mania accompanied by muscular agitation. It acts on the motor centre, sparing the sensory tracts. Of twenty-five patients treated by this substance, twenty-two times the muscular agitation subsided.

Hydrate of Chloral has been used in cases of nocturnal incontinence.

Chloride of Potassium has been used instead of bromide in epilepsy, and it is asserted to be more efficacious. Dose 3.5 grammes to 5 grammes a day.

Cupuaia has been recommended in certain cases of psoriasis.

Iodine has been recommended in cases of nocturnal incontinence of the aged; one drop of the tincture every hour in water. The tincture has also been recommended in doses of ten drops in intermittent fever thrice daily.

Iodoform is used in chronic venereal ulcers, and much praised as an antiseptic.

Iodide of Silver is recommended in whooping-cough.

Koussine is an excellent vermifuge, and is given in the morning in doses of 1.25 grammes in a little syrup.

Phosphorus has been recommended in chronic skin diseases in oil, or gelatine capsules containing each from two to six milligrammes of phosphorus in oil. Acne indurata, lupus, psoriasis, and scrofulous skin diseases have been cured by such means. *The Doctor.*

DRYSDALE ON THE TREATMENT OF PNEUMONIA.

The treatment of pneumonia varies a great deal, each case must be considered carefully on its own merits. Age is the most important point to be considered. Children and old persons very frequently die, however treated; and hence, it is chiefly in young adults that any great latitude is permissible in trying experiments in treatment. Such patients are often treated by "expectation" by physicians of modern times, and allowed to go on with attention to the general rules of hygiene, such as simplicity in diet, plenty of fresh cool air, etc.

With regard to the use of bleeding in the pneumonia of young adults, it would seem that statistics are as favorable to this mode of treatment as to any other. But statistics group together all sorts of cases, and are, therefore apt to lead in the end to complete scepticism and expectant practice. Physicians who formerly bled in cases of pneumonia proposed, firstly to diminish the quantity of the blood for a time. Such bleedings sometimes seem to have done service in the first stage of pneumonia, whilst the crepitating rale is heard, and M Bouilland used to say, that we might thus "strangle the pneumonia at its birth." But in strangling the disease it was possible also to injure the patient, for the bleedings he practised often produced serious prostration, and favored the onset of the stage of red hepatization of the lung.

The more bleedings that are made the more does the fibrine in the blood increase, since the proportion of blood globules keeps always diminishing.

It was said that, by blood-letting, the temperature of the body was lowered, and the heart's action lessened. This is all true, but the good result does not last. The pulse, feeble at ten in the morning, after a bleeding, rises at noon. And to effect the end, we should require to draw blood every four hours. The inflammation of the lungs is a multiplication of cells and a proliferation of the tissue of the lungs, a process of new formation of cells. Bleeding can do nothing against this. Resorption cannot ensue until the exudation has become fatty and granular, that is, semi-liquid, which takes place only on the sixth or ninth day.

So that bleeding is useless, except in the first days of pneumonia, when the crepitating rale is present; after this time it produces only anæmia.

Slight blood-letting sometimes diminishes the dyspnoea in pneumonia, and sometimes softens the pulse in sthenic cases. It should not be used in the delirium of pneumonic patients; for, as Dr Magnus Huss has shown, such cases of delirious pneumonia occur usually in drinkers, or in the aged. "Bleeding" (says Van Swieten) "kills drinkers." Children should not be bled, for expectant treatment does best in their case; and, if

bled, children may be rendered anæmic for long. Old persons, again, should not be bled. The inhabitants of towns are rather paler than countrymen, but bleeding suits neither citizens nor country people. Country people are often reddened by the sun, and also by alcohol, and bleeding soon exhausts their strength as well as that of townsmen.

Perhaps, then, the true treatment of pneumonia, even of the most sthenic form, consists in a low diet, cold fresh air, frequently renewed; and for drugs, the use of small doses of tartarised antimony in fit cases. Whether hot fomentations or cold applications (ice to the part affected) should be used is not, perhaps, quite clear. The former are less formidable, and often do great good in relieving the dyspnoea. The wet sheet will reduce the temperature sometimes from 104° F. to 102°, and gives great relief in fit cases. Alcohol is of no service in pneumonia, or in fevers which, when treated carefully by attention to temperature, food and plenty of cool air, do usually very well indeed; unless, indeed, in worn out and aged persons, in whom pneumonia is often from the first clearly destined to end fatally, or in young children when the fever runs very high.—*Dublin Medical Press.*

UNIVERSITY OF MICHIGAN AND HOMŒOPATHY.

To answer numerous inquiries the following preamble and resolutions, passed by the Board of Regents at a late meeting, are published:—

WHEREAS—The Legislature of the State of Michigan at its last session re-enacted the law of 1855, requiring the appointment of Homœopathic Professors in the Medical Department of the University, and, whereas, it has always been claimed by the Board of Regents that the law was an infringement upon the rights and prerogatives of the Board, and, whereas, the Supreme Court of the State has refused to grant a mandamus requiring the Regents to comply with the law, thereby substantially confirming their action, therefore,

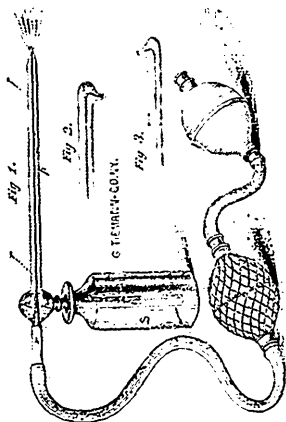
Resolved—That we maintain the position heretofore taken, and decline to make the appointments required by the law.

Resolved further—That we do this in no spirit of factious opposition to the apparent will of the Legislature, but because we believe the true and best interests of the University demand it.

Resolved—That we re-affirm the former action of the Board expressing a willingness to take official charge of an independent school of Homœopathy, and connect it with the University, whenever the means shall be provided for the payment of its professors.

New Instruments.

NEWMAN'S NEW GLASS ATOMIZER.



The Atomizer of Dr. Robert Newman, of New York, is constructed on the principle of one capillary tube enclosing another. The double-air chamber of the rubber tube presses the air through the inner tube *rr*, and directs the spray. The same movement exhausts the air from the outer tube *pp*. As soon as there is a vacuum in the outer tube, the fluid from the vial *S* is forced upwards into it, and surrounds the inner tube. The continued pressure forces the fluid through the small opening, and produces the spray. The fluid is carried in the outer tube—the air, which atomizes, in the inner tube. The opposite mechanism, *i. e.*, the inner tube carrying the fluid, and the outer the air, will produce the same effect. Instruments constructed according to the latter theory have been made by the same artist, and work well. These atomizers are made to direct the spray in different ways: upwards, downwards or straight forward. Either of these directions is produced by the end of the inner tube, which conveys the air. But in either case the instrument is only ONE piece of machinery. Fig. 1 represents the straight atomizer in operation; *pp* is the outer tube, *rr* the inner tube; *S* the vial with the medicated fluid.

Fig. 2 is the end of an atomizer downwards for the larynx, etc.; and Fig. 3 the end of an atomizer which sprays upwards for the posterior nares.

These instruments possess many advantages over all the other patterns in use now. They are clean, always keep so, and they do not decompose the solutions, produce a finer spray, thereby not irritating the parts, never need repairs, always keep in order, and are cheaper than other contrivances. They are not patented.

BLEACHING SPONGES.

The following directions are given for bleaching sponges, and is said not to injure the texture:

Having made the sponges free from sand and calcareous matter by gently beating them, wash them in water, squeeze as dry as possible, and then place a few at a time in a solution of *permanganate of potassa*, made by dissolving 180 grains of the salt in five pints of water, and pouring a portion of the solution into a suitable glazed vessel. Let them remain a few moments until they have acquired a dark mahogany-brown color, when they are to be squeezed by hand to free them from the solution. They are then dropped, a few at a time, into a bleaching solution made as follows:

Hyposulphite of soda, 10 ounces; water, 68 ounces. When dissolved, add muriatic acid, 5 ounces.

This solution should be made a day or more before being wanted for use, in order that the sulphur, which is precipitated by the addition of the acid, may be easily separated. This solution is poured off from the sulphur, and, if necessary, strained through a piece of muslin into a glazed vessel. [This portion of the process should be done in the open air or under a hood, where the offensive vapors of sulphurous acid are removed.] The sponges are allowed to remain in this solution for a few moments, occasionally squeezing them with the hand in order to allow the fluid to thoroughly permeate them, then squeezed out and washed in several waters to rid them of the sulphurous odors. After several washings they may, if necessary, be completely deodorized by a very weak solution of *bicarbonate of soda* (say 100 grains in five pints of water), and then washed through two or three more waters to free it from traces of alkali. [Much caution should be used in using this alkaline solution lest it neutralize the bleaching effect of the previous solutions.] When the sponges are nearly dry immerse them in a solution of glycerine in water, of the strength of a half ounce of glycerine in the pint, squeeze them by hand and let them dry in the air, but not exposed to direct sunlight. This will leave them beautifully white and soft to the touch. — *Druggists' Circular*.

EXPERIMENTAL RESEARCHES IN CEREBRAL PHYSIOLOGY AND PATHOLOGY.

Dr. David Ferrier gives the following as the more important conclusions which he has arrived at from many extremely interesting and important experiments made by him on different animals in the laboratory of the West Riding Asylum, Wakefield:—

1. The anterior portions of the cerebral hemisphere are the chief centres of voluntary motion and the active outward manifestation of intelligence.

2. The individual convolutions are separate and distinct centres; and in certain definite groups of convolutions (to some extent indicated by the researches of Fritsch and Hitzig), and in corresponding regions of non convoluted brains, are localized the centres for the various movements of the eye lids, the face, the mouth, the ear, the neck, the hand, foot, and tail. Striking differences corresponding with the habits of the animal are to be found in the differentiation of the centres. Thus the centres for the tail in dogs, the paw in cats, and the lips and mouth in rabbits, are highly differentiated and pronounced.

3. The action of the hemispheres is in general crossed; but certain movements of the mouth, tongue, and neck, are bilaterally co-ordinated from each cerebral hemisphere.

4. The proximate causes of the different epilepsies are, as Dr. Hughlings Jackson supposes, "discharging lesions" of the different centres in the cerebral hemispheres. The affection may be limited artificially to one muscle or group of muscles, or may be made to involve all the muscles represented in the cerebral hemispheres, with foaming at the mouth, biting of the tongue, and loss of consciousness. When induced artificially in animals, the affection as a rule first invades the muscles most in voluntary use, in striking harmony with the clinical observations of Dr Hughlings Jackson.

5. Chorea is of the same nature as epilepsy, dependent on momentary discharging lesions of the individual cerebral centres. In this respect, Dr. Hughlings Jackson's views are again experimentally confirmed.

6. The corpora striata have crossed action, and are centres for the muscles of the opposite side of the body. Powerful irritation of one causes rigid pleurosthotonos, the flexors predominating over the extensors.

7. The optic thalamus, fornix, hippocampus major, and the convolutions grouped around it, have no motor signification.

8. The optic lobes or corpora quadrigemina, besides being concerned with vision and the movements of the iris, are centres for the extensor muscles of the head, trunk, and legs. Irritation of these centres causes rigid opisthotonos.

9. The cerebellum is the co-ordinating centre for the muscles of the eyeball. Each separate lobule (in rabbits) is a distinct centre for special alterations of the optic axes.

10. On the integrity of these centres depends the maintenance of the equilibrium of the body.

11. Nystagmus, or oscillation of the eyeballs, is an epileptiform affection of the cerebellar oculomotorial centres.

12. These results explain many hitherto obscure symptoms of cerebral disease, and enable us to localize with greater certainty many forms of cerebral lesion.—*Brit. Med. Journal*, April 26, 1873.

THE DANGERS OF CHLORAL HYDRATE.

BY WILLIAM DONOVAN, L.R.C.P., L.R.C.S.F.D., ETC.

Having just looked over the translation of Dr. Kaur's article on "Chronic Poisoning by Hydrate of Chloral" which appears in the *Pharmaceutical Journal*, I must say I was sorry to find no notice taken of its dangerous effect when administered to patients laboring under acute pulmonary diseases, such as pneumonia, bronchitis, and all diseases whose tendency is to retard respiration. I have, I regret to say, seen not necessarily fatal cases of pneumonia become hopeless after an ordinary dose of this death-producing hobby-horse of modern medicine.

The first case in which I used it was that of a stout, well-nourished man, of about 25, who was suffering from extreme asthma and insomnia of pneumonia. Its effect on him was quite enough to warn me of its dangers, his wife and himself made me promise on my next visit not to give him any more of that stuff, as it was very near killing him. He said that a very short time after taking it he lost all consciousness, and suffered from a kind of frightful nightmare, his wife stating that he was raving and muttering all night; when I saw him next morning he was in a state of complete prostration, his powerful constitution alone bringing him through.

The second and last time it was administered to a patient of mine by a medical man of long standing and large practice, whom I met in consultation, and whose antiquity carried the day against my comparatively juvenile ideas. It was about eight or ten days after her confinement, which had been a dangerous one, when she was attacked with pneumonia, and, against my wish, received a twenty-five grain dose of chloral, the consequence was, what I had expected, in a short time after taking it she sank into a state of low muttering delirium, from which she woke up with the death rattle in the throat.

I could bring plenty of evidences to bear on the painful subject, but feel that what I have said is

enough to warn those who are beginning their career in their glorious profession, that hydrate of chloral is a deadly agent, powerful to do ill, and almost, if not entirely, useless as a curative agent.

To my seniors I say you are warned, death caused by such agents as chloral and chloroform, though it may not be as yet looked on as murder by our fellow men, yet I believe them to be so in His eyes to whom nothing is hid.

I hope you will insert this public warning, which should long ago have come from some able hand, and which I would not feel myself justified in sending for publication were I not aware that my opinions on the subject are held by some of the ablest men in the country. *Med. Press and Circular.*

Medical Items and News.

Two hundred and forty-one operations for ovarian diseases have been performed by Dr. W. L. Atlee.

DISINFECTANTS.—A student, undergoing his examination, was asked what was the action of disinfectants. He replied: "They smell so badly that the people open the windows, and fresh air gets in."

It is stated that the costs of the recent lawsuit to establish the claims of women to medical education at Edinburg University amount to \$4241, and that those costs have been thrown on the lady students.

The cattle plague has broken out afresh in Russia. The Prussian Government has forbidden the import and export of cattle or meat, as well as all animal substances, except milk, butter, and cheese, across the infected frontier.

A medical paper has been started in Kingston, Ont., under the editorship of Dr. Neish. It is called the "Medical Times," and is an eight-page weekly sheet. It is issued at the low price of \$2 per annum. We hope our enterprising confrère may not lose money by the experiment.

CINCHONA GROWING IN INDIA.—There are at present growing on the British Government plantations in Bengal, 2,394,799 plants, cuttings, and seedlings of the various species of cinchona tree; 2,000,000 belonging to the *Cinchona succirubra*, and the remainder to five other species. Mr. George King, Superintendent of the Botanical Gardens, says: "It has indeed, been demonstrated that cinchona trees can be grown successfully up to the age of about ten years, and that their bark is quite as rich in alkaloids as that obtained from South American forests; but whether they will reach maturity remains to be seen."

William Gordemo was the first person upon whom the degree of Doctor of Medicine was conferred. It was granted by the College at Osti. in 1320.

ARSENICAL PASTE IN THE TREATMENT OF CANCER.—Dr. Alex. Marsden ("A New and Successful Mode of Treating Cancer") says: "The arsenical-mucilage mode of treatment is applicable to all forms of cancer, except the cystic or colloid, provided they have not exceeded certain limits, viz., four square inches, and then not more than a fourth may be attacked at once. The mode I adopt is as follows: A thick paste of arsenic is made according to the following formula:

R.
Arsenious acid, 5 ii
Mucilage of gum acacia, ʒ i

To be well mixed together and made into a thick paste, and spread over the surface. At the end of from forty-eight hours to three days, poultices are to be applied to favor the sloughing away of the cancerous mass.

CONIUM IN THE TREATMENT OF INSANITY.—Dr. Daniel H. Kitchin (*Am. Jour. Insanity*, April, 1873), in an excellent article on this subject, speaks of the valuable experiments with *conium*, hypodermically administered by Dr. J. W. Burman, of the West Riding Lunatic Asylum. Twelve cases are related in which this drug was successfully given. His conclusions on its action are as follows: 1st. Muscular relaxation. 2nd. Duration in proportion to dose. 3rd. Physiological effect in proportion to purity of the article used. 4th. The brain is not affected directly by conium. 5th. Pulse and temperature both reduced after a full dose. 6th. A gentle perspiration covers the whole body as soon as the physiological effects are observed. 7th. No appreciable effect on any of the secretions. 8th. Quietness lasts from two to four hours, and then disappears, leaving only a sense of lessened muscular energy. 9th. Conium, not acting on the brain, may safely be given in all febrile diseases. 10th. Conium, when applied to the skin, causes slight redness.

ACTION OF THE INTERCOSTAL MUSCLES.—Thos. Dwight, Jr., M.D., Prof. of Anatomy at the Medical School of Maine (*Boston Med. & Surg. Jour.*, May 1, 1873), concludes that the action of the intercostals during ordinary respiration is very slight, if indeed they act otherwise than as ligaments. Both sets, at the upper part of the chest, tend to raise the ribs. Owing to the fixing or drawing down of the lower rib, both sets in the lower part of the chest may tend to draw the ribs downward. By sudden contraction, drawing the ribs together, they are muscles of spasmodic expiration. Position, muscular action, disease, deformity, and various slight and undefinable causes, may modify the action of any of them.

THE CANADA LANCET:

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Issued Promptly on the First of each Month.

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TORONTO, SEPTEMBER 1, 1873.

ENLARGEMENT OF THE JOURNAL.

As will be seen by the appearance of the present issue, we have increased the size of the LANCET to nearly double its former capacity. This we have been forced to do, owing to the amount of pressure on our advertising space, and the increased supply of original communications, many of which had to be held over from month to month, from want of room. We have adopted the style of the most successful British journals, as the one best adapted to our present necessities, we have also done this in view of the prospect of being able, sooner or later, to bring out a semi-monthly or weekly edition. We do not feel able to undertake this at present, and do not consider it wise to hamper our present resources in a vain attempt to do that which it has taken other and even more successful journalists years to accomplish. We are bound, however, to maintain for the CANADA LANCET that position which it has already attained of being the leading medical journal in the Dominion, and to this end no pains or expense will be spared. The LANCET was projected in the interest of the general profession of Canada, and it shall be our constant aim to keep it entirely free from any taint of partiality towards any particular local interest whatsoever, and to make it truly cosmopolitan in letter and in spirit. We believe this is the only basis upon which a medical journal can be successfully conducted, and in order to remove every semblance of personality, we have discontinued publishing the names of editors and co-editors. We have also largely increased the editorial staff by the addition of some of the most prominent medical men in the profession, men whose age and experience emi-

nently fit them for the work we have in hand. We look forward, therefore, with buoyant hopes and bright prospects in the future success of the journal, and trust that as in the past we shall have the renewed confidence and continued support and co-operation of the profession of Canada.

THE BRITISH MEDICAL ASSOCIATION.

The meeting of the British Medical Association lately held in London, was by far the most successful gathering of the kind which has ever taken place either in ancient or modern times. The session lasted four days (5th, 6th, 7th and 8th of August), and during that time between two and three thousand registered their names as members and visitors. There were also present an unusually large number of distinguished visitors from foreign countries, especially from France and Germany, among whom were Virchow, Langenbeck, Bardeleben, Rindfleisch, Liebreich, DeMusvy, Dieulafoy and many others of equal celebrity. The hospitality displayed was on a truly magnificent scale. The metropolitan members provided a public luncheon daily, for all comers. This was held in King's College, and was well attended. The Lord Mayor entertained the members at the Mansion House, in his usual grand style, and the Royal College of Surgeons gave a magnificent entertainment on the following evening, at which upwards of 2,000 gentlemen were present. The annual dinner of the Association, at which the premier, the Right Hon. W. E. Gladstone, was present, was held in the Hall of Lincoln's Inn, and was attended by a large number of members. Among the toasts at the dinner was that of Her Majesty's ministers, proposed by Sir J. Paget, who described what he considered the standard of an English minister. Mr. Gladstone responded in his usual eloquent style, assuring them that Sir J. Paget's ideal was one that would serve as a standard toward which he might aim, and in turn proposed the Association, and paid a high compliment to the profession, stating that he had often been much indebted to the profession in his own person, and that of all the sciences of observation so cultivated in this age, medicine was the noblest. The dinner was a great success, and the presence of the Premier gave much satisfaction. Many private members had their houses full, and some gave large dinner-parties. The

British Museum, Gallery of Arts, and many other places of interest were thrown open to the visitors. The London brethren seemed determined that nothing should be wanting on their part to make the week pass happily.

The addresses and papers read were of a very interesting and instructive character, and were listened to very attentively: some of the most important will appear in our next issue. The President's (Sir Wm. Ferguson) was on the subject of water supply to large towns and cities; a subject not exactly in his line, but which he treated with a good deal of shrewd common sense, although in a scientific aspect a little defective. He advocated an abundance of water irrespective of purity; quantity being considered by him of more importance than quality. The address on Medicine was delivered by Dr Parkes, of the Army Medical School, in which he traced the progress of medicine for the last thirty years, and was replete with valuable information. The address on Surgery was by Prof. Wood, of King's College, in the course of which he touched upon the various improvements in surgery, the antiseptic treatment, drainage in wounds, etc., and concluded by a reference to his plan for the radical cure of hernia. The address on Physiology was by Dr. J. Burdon Sanderson, and was a masterly and scientific exposition of the bearing of physiology upon medicine. The addresses delivered before the various sections of medicine, surgery, physiology, and state medicine, were also very interesting and instructive. The interest in the proceedings was evidenced by the large attendance at the meetings of sections, notwithstanding the many inducements to spend the time in holiday-making and visiting objects of interest in the metropolis.

THE VIENNA MIXTURE.

Anæsthesia is a subject of very great importance, and one concerning which a good deal of discussion has taken place lately, especially regarding the relative safety of chloroform and ether. Some have advocated the exclusive use of ether, others a mixture of chloroform and ether, while many still prefer to take the risk of continuing the use of chloroform, and so the matter stands at present, no definite decision having been arrived at by the profession. This is a circumstance very much to

be regretted. The administration of an æsthetic is always attended with more or less danger to the life of the patient, and the responsibility attending its administration is always such as to cause considerable anxiety to the mind of the operator. This condition of affairs is not improved by the present state of medical opinion regarding the relative safety of these two agents. The *London Lancet* in commenting upon a recent case in which a woman sought to recover damages from two Dublin surgeons for the death of her husband under chloroform, says, "That as public opinion runs at present any medical man, who may be placed in a position similar to that of the defendants in this trial, runs the risk of having witnesses arraigned against him who might state that the employment of chloroform is unwarrantable, and that ether, as being less dangerous, is the only anæsthetic which with our present knowledge one has a right to employ" and suggests the propriety of registering all cases in which anæsthesia is resorted to, as a means of judging of the relative merits of rival anæsthetics.

With a view of overcoming the danger of chloroform, some have advised the use of a mixture of chloroform and ether, called the Vienna mixture, containing six parts of ether to two of chloroform. This mixture was reported to have been used in Vienna 3000 times without a casualty. It has not proved so successful in other places, as reports have been given at different times of death having occurred from its use. In the only instance in which we witnessed a death from Anæsthesia, the agent used was a mixture of chloroform and ether. These unfavorable results were predicted by Dr. Snow at the time of its introduction. He contended that it would be dangerous, and his opposition was based on the following reasons: Ether is more volatile than chloroform, and will therefore evaporate more rapidly, so that when they are combined in whatever proportion, before the whole is evaporated, the last portion will be nearly all chloroform. The consequence of this is that at the commencement of the inhalation the vapor inspired is chiefly ether, and towards the close nearly all chloroform, the powerful effect of which at this stage would be disastrous. The patient will in this way experience the stronger pungency of the ether when it is most objectionable, and inhale the more powerful vapor at the conclusion when caution is

most necessary. Spencer Wells has also lately pronounced in somewhat similar terms against the use of the mixture in his ovarian operations. It is not a perfect anæsthetic, being irregular in its effect, slow in its action, and not unattended with danger. It is to be hoped, therefore, that no attempt will be made to reintroduce its use (as we have heard spoken of), because of the unsatisfactory state of public opinion regarding the relative safety of chloroform and ether.

TORONTO EYE AND EAR INFIRMARY.

This excellent institution was established in May, 1867, and for six years, ending May, 1873, there were 1312 poor persons, from different parts of the Province who received gratuitous medical treatment for diseases of the eye and ear. The number of patients in attendance gradually increased from 104 the first year to 367 the sixth year. Many poor patients were quite blind, and if medical skill had not been charitably extended to them, would now be hopelessly blind. In some cases, when the father of a family had been so afflicted, the whole family would have been reduced to helpless pauperism, and made dependent upon public or private charity for their maintenance, but for the relief afforded at this institution. The Toronto Eye and Ear Infirmary affords relief to the poor of every part of the Province. It also affords valuable clinical advantages in ophthalmic and aural surgery to medical students, which cannot be obtained in any other institution in the Province. These students, as they settle in different parts of the country, carry the experience which they have gained at the Eye and Ear Infirmary into practice, and thereby confer a public benefit.

As already stated, there is no charge for medical treatment or medicine; the only expense being the patient's board, which is charged at \$3 per week, each person.

The members of the board of management perform their labors without any remuneration.

The City Chamberlain, Mr. A. T. McCord, is the President, Mr. A. Dredge, Vice-President; Mr. W. Mason, Secretary and Treasurer; and Messrs. Wm. Elliott, George Hague (Bank of Toronto), John McKim, W. J. Macdonnell, A. R. McMaster, J. H. Mason, E. J. Palmer, Robert Walker, and Robert Wilkes, M.P., are Directors.

The members of the medical staff are likewise unpaid. This department is under the management of Dr. A. M. Rosebrugh, of Toronto, who has had considerable experience in ophthalmic practice. He is ably assisted by Drs. Reeve and Coleman; Dr. Caniff acts as consulting surgeon.

The Eye and Ear Infirmary is partly supported by voluntary contributions. All annual subscribers of one dollar a year and upwards are members, and entitled to vote at general meetings and elections. Any person subscribing and paying at one time fifty dollars is a member for life, and entitled to the same privileges as annual subscribers.

At a recent meeting of the Board of Management, Mr. Francis Hart and his wife were unanimously appointed Superintendent and Matron respectively to the Infirmary. Both have had some experience in this kind of work in years gone by. Mr. Hart previously resided in Muskoka, and removed to Toronto in December last. He was formerly connected with the Toronto and provincial press. Mr. Hart is of a very cheerful and benevolent disposition, and will doubtless try to render all the comfort in his power to the poor afflicted sufferers committed to his charge.

All communications should be addressed to Mr. Hart, Superintendent, Box 1261, P. O., Toronto.

CANADA MEDICAL ASSOCIATION.

The meeting of the Canada Medical Association, a full report of the proceedings of which will be found in previous pages, was held in St. John, N. B., commencing on the 6th ult., and continuing two days. There was a large attendance, especially from Quebec and the Maritime Provinces. The profession of the city of St. John received their medical brethren of the Dominion in a very hospitable manner, and the meeting passed off most pleasantly. Some very excellent papers, which we will be able to publish in our next issue, were read and criticised by the members present; and some interesting cases were brought before the Association. We are glad to see so much interest manifested in this Association, and hope to see a large meeting next year at the Falls. A number of gentlemen have been appointed to read papers at the next meeting, and we trust they will all give a good account of themselves. It is such matters as these that give vitality and interest to

the proceedings. It is to be regretted that so few representatives from Ontario were present. It is also to be regretted that the Association did not select Toronto or Hamilton as the next place of meeting, from which an excursion to the Falls could have been made one of the attractions. We presume, however, that the absence of any representative from either of these cities was the reason of this oversight. We trust that some effort will yet be made to have the next meeting in Toronto. We fear that the accommodation for a meeting of this kind at the Falls, especially on the Canada side, will not be all that could be desired.

CINCHO-QUININE.—This preparation is being largely used instead of quinine, it is much cheaper, and in many instances much preferable to this alkaloid. It consists of a combination of all the alkaloids found in the bark quinine, cinchonia, quinidia, cinchonidia, &c., the whole of the active febrifuge and tonic principles of the bark being secured without the inert bulky lignin, gum, &c. The natural bark has always been found more efficient and prompt in its action than the separate alkaloids, and therefore this preparation, which is, in reality, the natural bark deprived only of its lignin gum and other inert and inconvenient matters, cannot but be of the utmost value as a therapeutical agent.

BENDING GLASS TUBES.—If the glass tube we desire to bend be filled with sand, and each end stopped to prevent its escape, on heating over a Bunsen burner, it will be found that the tube may be quite doubled if desired, a perfect curve being produced. In this way we may promptly produce accurate bends of any desired size in tubes of any bore without any previous skill in glass working. Obviously, the principle depends on a uniform distribution by the sand of the pressure exerted. A similar plan is resorted to by metal-workers in bending tubes of lead.

PERSONAL.—W. B. Lindsay, Esq., M. D., graduate of Victoria College, Cobourg, has just returned from London, Eng., where he has been prosecuting his studies for the past year. He lately passed a most successful examination before the Royal College of Physicians, London, and obtained the License from that body.

SINGULAR BREAK OF NATURE. In one of our country papers is mentioned an instance of a lamb with *three* kidneys. Two were of the usual size and in their natural position; the third one was further back and about half the size of one of the others. Veterinary Surgeon Rogers, of that place, examined the kidney and found it perfect in its formation, and it had evidently performed the same function as the other two. This freak of nature is most extraordinary, and we question whether such a one was ever heard of before.

CHLOROFORM IN LEAD COLIC.—Dr. Laramie, of Montreal *L'Union Medicale*, has succeeded in the treatment of lead colic after the failure of other remedies by the application of chloroform to the abdomen. He soaks a piece of flannel in about two ounces of chloroform and lays it on the abdomen. Over this, he places another piece of flannel wrung out of hot water. He says it arrests the pain instantly and permanently, a mild purgative only, being necessary to complete the cure.

COLD BATHS IN RHEUMATIC FEVER.—Dr. Sydney Ringer reports in the *Practitioner* a case of rheumatic fever successfully treated by means of cold baths and the application of large-sized ice-bags. The patient was a young girl about twenty-two years of age, the temperature was very high and the joints red and painful, but under the above treatment the temperature was soon lowered, and great relief afforded the patient.

GALVANO-EMESIS.—Emesis may be produced by means of electricity when other means fail, or are impracticable. It may be brought about by introducing one electrode into the upper part of the oesophagus, and applying the other over the epigastric region. Dr. Fox relates a case in the *British Med. Journal*, in which a child was brought to him in an asphyxiated state from eating poisonous mushrooms. He applied the current as above prescribed, and vomiting ensued immediately.

WEeping IN CHILDREN.—M. Trousseau considers it worthy to be considered as an aphorism that an infant is not dangerously ill so long as it sheds tears; and that, on the contrary, absence of weeping indicates a severe disease. He, however, admits that exceptions may occur to this general rule.

PAIN IN THE BLADDER OR PENIS.—A patient complains of pain in the region of the bladder or perineum. There is almost certainly chronic cystitis. Ask whether he feels the pain before, during, or after passing urine. If the pain is before, it is because the mucous membrane is becoming uneasy in consequence of distension. If the pain is during and after passing water, and in the end of the penis, he is likely to have stone; and especially also if the pain is increased by exercise. It is almost pathognomonic of stone to have the pain in the tip of the penis. Chronic prostatitis simulates stone more than any other disease. In both, the pain is at the tip of the penis.—*Braithwaite.*

TREATMENT OF CANCER ORIS.—Dr. McGreevy, in the *British Med. Jour.* says that he has never found any application so useful or so effectual in such cases as hydrochloric acid. He has never known it fail in checking the disease at once, and in bringing on a most rapid and healthy action in the part. He applies the acid to the ulcer by means of a feather or small camel-hair brush. The application does not cause much pain or suffering to the little patient, as the gangrenous spot is almost entirely without feeling at this time. If the ulcers are very numerous it would be as well to apply the acid to only a few at a time, or to use it in a diluted form as a wash or gargle.

CARBOLIC ACID AND SULPHITE OF SODA IN SMALL-POX.—An article was published some time ago by Dr. Bessy, of Montreal, bringing the above most successful plan of treatment under the notice of the profession. Since then he has had several cases all confirmatory of the beneficial action of this combination. He gives it in the proportion of one drop of carbolic acid to from 5 to 10 grs. of the sulphite in a drachm of glycerine. The carbolic acid is first dissolved in the glycerine, forming a carbolate of glycerine, and to this is added the sulphite of soda. It is deserving of a more extended trial.

NOTICE.—Gentlemen who persist in returning copies of the LANCET without enclosing their names must not complain if the journal is still continued to their address. It is impossible for us to know from whom they come unless the name is written on the copy or wrapper.

QUININE AND BLISTERS IN PNEUMONIA.—Dr. Payne in the *Southern Med. Record* recommends large blisters to the chest, and from 20 to 30 grain doses of quinine twice or thrice a day in the treatment of pneumonia when it has reached the stage of hepatization. He claims for this plan of treatment, greater success than is usually obtained by the ordinary methods. He gives a report of several very bad cases successfully treated in this way, and mentions one case that was given up by a medical friend, that made a rapid recovery after the application of the blister, and one dose of quinine.

FERRIC ALUM IN PURPURA.—Ferric alum in powder in doses of 5 to 6 grains three or four times a day has been strongly recommended in the treatment of purpura hemorrhagica. Iron has long been used in the treatment of this affection, and with as much success as any other remedy, and this combination which contains in addition, the astringent properties of alum cannot fail to be of service in this disease.

CALABAR BEAN IN TETANUS.—We have lately observed in our exchanges, several reports of cases in which Calabar bean has been successfully used in the treatment of tetanus, idiopathic and traumatic. The saturated tincture is commonly used; when by the mouth in 5 drop doses every 3 hours, and hypodermically one drop in solution every two hours. It is said by some to be the Hercules of the materia medica in trismus.

HARTSHORNE'S CHOLERA MIXTURE.—The following combination has been highly spoken of. R Chloroform, Tinct. Opii, Tinct. Camphoræ, Spt. Ammon. Arom., aa f ʒ iii, Olei Cinnam. gtt. xvi, Creosoti, gtt. vi, Spt. Vini Gallici, f ʒ ss, M. Sig. —Ten to twenty drops in a teaspoonful of ice water every five to thirty minutes, as required. Useful in the premonitory diarrhoea.

MATRICULATION EXAMINATIONS.—The following gentlemen passed successfully at the recent matriculation examination of the College of Physicians and Surgeons of Ontario. The examination was held as usual in the High School before Mr. McMurchy, the principal:—Messrs H. A. Eberle, D. B. Fraser, D. Fraser, N. D. Richards, K. McWilliams, W. Tisdale, Wm. H. Howey, and R. T. McTavish.

APPOINTMENT OF CORONERS.—David Heggie, of the town of Brampton, Esquire, M.D., to be an associate coroner within and for the County of Peel. Francis Oakley, of the village of Plattsville, Esquire, M.D., to be an associate coroner within and for the County of Oxford. James Henry, of the town of Orangeville, Esquire, M.D., to be an associate coroner within and for the County of Simcoe. Alexander Scott, of the village of Forest, Esquire, M.D., to be an associate coroner within and for the County of Lambton. Alex. Graham, Esq., M.D., of Newbury, associate coroner for the County of Middlesex. Archibald Alexander Riddel, of the City of Toronto, Esquire, M.D., to be an associate coroner within and for the County of York.

Dr. Agnew, of Toronto, has been appointed professor of Sanitary Science in Victoria College, Toronto. Dr. Hillary, of Toronto, has been appointed to a position on the hospital staff of the Toronto General Hospital.

There is a good opening for a medical man in Phillippsville, Ont.; also, in the village of Atherley, near Lake Simcoe.

DEATH.—In Toronto, on the 21st June, Joseph Howson, M.D., in the 45th year of his age.

He was returning home from Yorkville in the evening, and his horse, from some cause, became unmanageable and ran into the side of the road, and the buggy striking against the sidewalk he was thrown out headforemost against the planks, and having a firm hold of the reins was dragged for some distance, his head striking against some planks at a crossing. When picked up he was still breathing, but died a few minutes afterwards. His funeral which was largely attended, especially by the members of the several societies of which he was a member, took place on Wednesday. The Dr. was manager of the Atlantic Life Insurance Company for this Province, and had not been in active practice for some time past. He leaves a wife and four children. He had several policies on his life amounting in all to about \$8500.

SUBSCRIBERS IN ARREARS.—The present number of the LANCET has been sent to all our subscribers, old and new, including many who are and have been in arrears for some time past, and we beg leave to intimate that the journal will

positively be discontinued to those who neglect or disregard their obligations. Owing to the increased expense incurred, we must insist on prompt remittance in future.

Book Notices.

CLINICAL ELECTRO-THERAPEUTICS, MEDICAL AND SURGICAL. A Hand-book for Physicians in the treatment of Nervous and other diseases. By Allan McLane Hamilton, M.D.; Physician to the New York State Hospital for Diseases of the Nervous System, etc. With numerous illustrations. New York: D. Appleton & Co. Toronto: Willing & Williamson.

The above work consists of about 200 pages, and is an exceedingly practical treatise on the subject of electricity. The author sets out by describing fully the mechanism of the various forms of batteries in common use, their mode of application, and the diseases for which each form of electricity is adapted. The subject of electrolysis is also treated of, as well as galvano-cautery, and in an appendix is given full directions for the management, care and working of batteries, and strength of solutions used in the different kinds. It is really an admirable little book on the clinical uses of electricity, and will no doubt have a very extensive sale.

THE MINERAL SPRINGS OF THE UNITED STATES AND CANADA. By G. E. Walton, M.D. New York: D. Appleton & Co. Toronto: Willing & Williamson.

This work contains much useful information on the choice of springs, character of the waters, the mode of using them, bathing, &c. The author gives reliable analyses of the waters, and their therapeutic value, so that physicians may thereby be enabled to advise their use as intelligently and beneficially as they do other valuable alterative agents. The work is much needed, and will no doubt be found very useful.

PLASTIC EXUDATION WITHIN THE PLEURA—DRY PLEURISY. By James R. Leaming, New York. A paper read by the author at the New York State Medical Society.

CONIUM IN THE TREATMENT OF INSANITY. By D. H. Kitchen, M.D., Asst. Physician New York State Lunatic Asylum, Utica, N.Y.