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THE CANADA LANCET.

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE,
CRITICISM AND NEWS.

VOL. XVII. TORONTO, AUGUST, 1885. No. 12.

Original Communications.

DIPHTHERIA.*

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

No subject can be presented to practical physicians that possesses a greater interest than diphtheria—a disease as ancient as history itself, and as widely spread as the human race. It stays not its ravages for country nor climate; it ruthlessly invades alike the hut of the peasant and the palace of the prince; it is not ashamed to claim its victims in the house of poverty, nor fears to enter the home of luxury. Many here to-day have had the circle of their own fireside broken, and every one here has felt his utter weakness when the home of his friends was desolated in spite of all his art, and to-day we unite our forces to meet a common foe.

We possess two means—*prevention* and *cure*—which enable us to lessen its ravages. Our greatest power at present lies in the former. It is a great satisfaction that at last we have a system of State medicine established in Ontario, and that legislative enactments now guard the birthright of every subject's health. Such legislation marks an advance in true civilization. The country owes much to the Ontario Board of Health for its energy, intelligence, and thoroughness in carrying out the Act. The people of Ontario are being rapidly educated in sanitary matters, and there are fair prospects that the prevalence of this disease, as well as many others, will be soon limited.

The report of the Registrar-General shows that it ranks high amongst the fatal diseases of this Province. For the year 1876 he reports a large increase in the number of deaths. In 1874 the deaths were not sufficiently numerous to be placed in the list of the ten highest causes of death, but in 1876 it stands third. Many deaths really due

to diphtheria are returned as croup; but the death rate from croup also increased in the same year, showing that they were probably due to one cause. In 1877 it stood fifth; 1878, fourth; 1879, sixth; 1880, fifth; 1881, fourth; 1882, fifth, in which year there were 1,239 deaths from this cause alone.

The predisposing causes are telluric, meteorological and individual. Amongst the former are low, damp situations. Houses are placed close to the ground, with no provision for currents of air to pass beneath them to dry the soil or expel noxious vapours. Houses too closely surrounded with plants, shrubbery, or trees, are favourable to the development of low organisms. River flats, sites of old saw mills where there is much decomposing sawdust, seem to be prejudicial. I have observed several cases apparently due to these causes—at least no other could be found. I have notes of nine cases observed in the autumn of 1884, which occurred within two weeks in two adjoining blocks of small tenement houses, placed close upon the flat, damp, undrained ground. Dr. Ryall, Medical Health Officer of Hamilton, reports to the Board of Health (in April last) of that city, the condition of the premises in which diphtheria was found. The description is so vivid and terse that I produce it: "The results of the examination of the affected districts revealed cellars dirty and damp, smelling strongly of sewer gas, vegetables stored in cellars decomposing and smelling badly, kitchen sinks and baths untrapped and unventilated, being connected either with sewer or water-closet, or bad smells in back yards, defective pan water-closets, soft-water cisterns under the kitchen floor, well-water used which received drainage from the surface manure heaps. A few cases occurred where the premises were in good order, but the surroundings were bad." The germ of diphtheria, whatever that may be, always finds in such conditions a suitable nidus for development—breeding spots where one germ generates many. All these causes are in the preventible list, and with the aid of the physician the people can remove them.

Meteorological conditions of a certain kind are strongly predisposing. The Michigan State Board of Health finds that diphtheria is increased by—increased daily temperature above the average for that period of the year, increase of humidity, increase of cloudiness, excess of winds, excess of ozone, high barometric pressure. Our own health

*Read before Ont. Med. Association, London, June, 1885.

reports establish the fact that the disease is most prevalent in November and December, when many of these conditions exist. During this period there are high barometric pressure, magnetic displays, and an electrical condition of the air producing nascent oxygen and ozone. The experiments of B. W. Richardson show that these gases are irritating to the respiratory passages, hence we find an excess in sore throats, and a corresponding increase in diphtheria. We must conclude from these premises that sore throat is a favourable locality for the reception of the diphtheria germ. The throats of children are very susceptible to atmospheric changes, and consequently age is a predisposing cause. The greatest mortality occurs from two to five years of age. The Registrar-General's Report for 1879 states that, of 574 deaths, 283—or about one-half—were under five years; 184 between five and ten. In 1881, 72 per cent. were under sixteen; in 1882 there were 1,239 deaths, 83 per cent. were under fifteen. The exciting cause of this disease is probably a germ from some former case. Bacterial pathology has not yet clearly established its nature. The natural history of these germs teaches us that they thrive best where there is moisture and decomposition of organic matter, and continue to produce their kind so long as favorable soil is present, and that those already formed may linger long in a locality after the production has ceased.

Dr. Bryce in the Health Report for Ontario, says there does not appear in the whole catalogue of disease one which is so persistently endemic in a locality when once introduced. What are the modes of communication? It is communicated by the direct passage of morbid material from a diseased throat to one previously healthy. The history of tracheotomy presents some lamentable illustrations of this fact. It may be communicated by the inhalation of germs existing in an insanitary locality, although no case of the disease then exists there. It is communicated by germs wafted in the air, and that for a considerable distance; and they produce the disease, more especially when a predisposition exists, so that many suffer whose sanitary surroundings are apparently perfect. The clean, as well as the unclean, may be obliged to share the calamity. I shall confirm these propositions by a few cases. A medical man reports to the Provincial Board that the mother of a large

family laid out the body of a little girl dead of diphtheria. In a few days four of her children were down with it. The pall-bearers were boys. One of them took it home, and seven of that family were taken ill.

Last December I saw a boy, aged fourteen, then ill for five days. His mother saw membrane in the throat. Croupy symptoms were strongly marked. It was a serious case. I found that three weeks previously he passed the night at the house of an uncle, and slept in a bed in which a child had recently died of diphtheria. Dr. Holmes, of Chatham, related a case which seems to show that it may be carried in clothing. A gentleman called at a house on business, and was obliged to remain there some hours. The disease existed in this house. He went to his own home some miles distant. No cases were near his own residence, yet both wife and child took the disease, and the child died.

Dr. Mullin, of Hamilton, tells of a family under his care; four members suffered; the first a school-boy; the early indications appeared Nov. 6; the other children were sent from home at once, and the patient was convalescent on the 13th. The other children were brought home on the 20th, and efforts made to keep the convalescent one isolated; however, on the 30th another was seized; Dec. 1st another, and on the 6th the third. He says the occurrence in the last three seems to him fairly attributable to contagion from the first.

During the winter of 1884, I observed a number of cases in one neighbourhood, which seemed to prove its passage in the air. In a tenement house, standing alone in a filthy state, two children died of diphtheria; across the street, and a few rods eastward, was a row of houses, all situated on high, dry ground, fair water and families in good circumstances. In a few weeks after the deaths in the tenement house, it appeared in this row, which was in the direct course of prevalent winds; two children in one house, five in the next, and four cases in the third house, in all 11 cases occurred in this row of houses; the two in the first house recovered; one of the five in the second house died of heart paralysis some days after apparent convalescence, another had a narrow escape; in the third house one died; a visitor had contracted tonsillitis while boating on a damp evening; she died from stenosis of the larynx. Four weeks later five cases oc-

curred in an adjoining block, in my care ; another case close by attended by another physician ; some weeks later, in a house close to the original outbreak, but on an opposite side, two children died in one family, altogether 19 cases and 6 deaths in a radius of about 20 rods. Our Board of Health was not yet organized ; had there been means to have thoroughly cleansed house No. 1, I believe disease and death would have been prevented.

Prophylaxis is a most essential part of the treatment, for more can be saved by prevention than by cure. It must be confessed that our treatment is not yet what we may hope for. The prophylactic measures can be inferred from the etiology already stated. Let the unaffected ones of a family be isolated at once, if possible, in another house, and in a different locality, as high and dry as can be secured, and let the quarantine be prolonged. All exposure to cold winds must be avoided. Keep throats of sound children disinfected with proper applications. I am sure this will prevent some cases. Every case of sore throat should be promptly treated. Rooms occupied should be large, well ventilated, and kept at an even temperature. The vapour of turpentine, tar, or sulphurous acid are probably useful, and are very well tolerated. Every infected locality should be visited by the authorities and completely disinfected to prevent the spread of the disease.

The question of the identity of croup and diphtheria has been discussed for some time without reaching a definite conclusion. The views of Lewis Smith in a recent article are correct, that membranous croup is not a disease of itself, but an outcome of other diseases or conditions, and states them in the order of frequency : 1. diphtheria ; 2. cold ; 3. measles ; 4. pertussis ; 5. scarlatina ; 6. typhoid ; 7. irritating inhalations. He says that in all instances the morbid anatomy, clinical history and required treatment of the croupy state are nearly identical ; and that attempts to differentiate them are futile. This puts the identity as regards treatment too strong, for in diphtheritic croup the system's condition is more adynamic than in croup from cold. In croup from other causes there is a sthenic condition, stenosis is the principal difficulty, and calomel can be pushed farther or jaborandi used.

Jaborandi was tried extensively in the terrible epidemic of diphtheria in Russia a few years ago

in the croup cases, upon the theory that the abundant secretion produced would so influence the condition of the parts as to prevent the formation of membrane or dislodge that already formed. The statistics do not favour its use in diphtheritic croup from its depressing tendencies. In cases of croup due to cold I have found it a powerful agent for good, and children tolerate this drug to a remarkable degree.

The *treatment* of this disease has a superlative interest. It is strange how many specifics there are—how many there are that find sure cures and safe cures. There are medical men who say they have never lost a case. Happy is the man who can so flatter himself. The local treatment is secondary in importance to the general treatment. The throat is now no longer injured by caustics, acids and rough swabs, which would produce a sore throat where none already existed. The throat should be kept as clean as possible with frequent gargles of hot water, which lessens the hyperæmia. Solutions of chlorate of potash are grateful. A soft camel's hair brush should always be used to make applications. There are many applications so equally good that it makes little difference which we employ. Sulphurous acid and glycerine, with the addition of thymol, is effectual and pleasant. Oil of eucalyptus and liquid petroleum make another good topical remedy. Lactic or acetic acid with glycerine I have found useful. The atomizer is an excellent instrument to make applications to the throat by the mouth, or through the nose, where the patient's age permits. Much harm can be done by using violence to dress the throat. Solutions that permit of being swallowed are better than forcible swabbings. Formerly membranes were eagerly detached, leaving a raw, bloody surface, upon which a new membrane rapidly forms, often in 24 hours. The membranes should be well cleansed and disinfected, and allowed to drop off when ripe for separation, after which they rarely return. Loose, hanging portions can be removed with scissors. Rossback, of Germany, after four years' trial, speaks favorably of the vegetable digestive papayotin. It acts well in an acid or an alkaline medicine. Dr. Lewis Smith mixes one drachm of Fairchild's extractum pancreatis with three of sod. bicarb, then adds one teaspoonful of this to six of water and pencils the fauces, and uses trypsin with the atomizer for mem-

branes in the larynx. A discussion of this subject at the last meeting of the American Medical Association confirmed the use of tried remedies, but nothing new of value was introduced.

The longer I treat diphtheria the more am I convinced of the power of tincture of iron, alcohol, quinine, and chlorate of potash, but the first mentioned is superior to all. These articles are all eminently safe, whether the tendency to death be from asthenia or from asphyxia; but the best effects of iron are seen only when administered in very large doses. Dr. Jacobi, in the *American System of Medicine*, recommends from 5 to 15 minims properly diluted every fifteen minutes or half hour, and I am sure from my own experience that this is valuable teaching. There is certainly a tolerance of the drug in this disease.

Alcohol given early and freely stands next to iron. Austin Flint, in an admirable article on Medicinal and non-Medicinal Therapeutics, thus speaks of alcohol in this and kindred affections: If alcohol be useful as a material for combustion within the body, it is indicated in the condition of fever, prior to the indication for its employment to sustain the failing powers of life. The object from this point of view is to forestall these indications and prevent the asthenia. It is evident that employed with a view to test fairly its value as an antiseptic or parasiticide, or as an antidote, it is important that it should be employed early, continuously, and in as large quantities as it may be tolerated.

Chlorate of potash is a well established remedy, but given in very large quantities will produce nephritis and albuminuria. Quinine in tonic doses is an excellent adjunct, but its bitter taste makes it difficult to administer to young children. When croupy symptoms appear there is still a possibility of arresting the further progress of the membrane by the increased dose of iron and alcohol. For many years I have found excellent results from the frequent administration of small doses of calomel, one gr. per hour, and free inunction of the neck with oleate of mercury. I know no remedy equally potent. The inhalation of moisture, in the form of vapour, is beyond doubt of considerable value. The atomizer is the best instrument for producing the vapour. I have tried to use ice, but my patients would never tolerate it long enough to judge of its merits.

When the stenosis continues to increase in spite of remedies, no time must be lost if the trachea is to be opened; for if there be any hope from the operation it is when done comparatively early. The results are not encouraging. The benefit of this operation, so manifest in croup from other causes, is not found in diphtheria, for it does not check the disease. Dr. Holmes, of Chatham, informs me that he has operated three times with a fatal issue in every case, but he would advocate the operation for euthanasia.

The albumen of this disease is rarely due to a nephritis, but to congestion of the kidneys, for it rarely produces dropsy or uræmia, and recovery is rapid after the cessation of the cause. The dyspnoea produces general engorgement which the kidneys must share; or the vagus being effected, the heart is weakened, and the congestion is due to this cause. The paralysis of diphtheria is fortunately not very frequent; some epidemics are much more marked than others by its appearance, and unless it involves the heart, or the paralysis is general, there is a strong tendency to spontaneous recovery. I have used faradism, but cannot say that it has hastened recovery. There is some evidence that galvanism has a beneficial influence. Professor Thacher, of Yale, has made some careful observations on the effects of massage, faradism and galvanism. There was a positive gain from galvanism, no effect from faradism, while massage seemed to lessen the power.

PLASTER SPLINTS IN THE TREATMENT OF FRACTURES.*

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

Mr. PRESIDENT,—When, a year ago, I proposed that instead of the annual reports containing digests of the progress in each department of medical science, such as had been presented to you, discussion should be arranged for, I did so with the conviction that the existing facilities for the rapid transmission of medical events to every reading member of the profession render such reports no longer necessary. In offering a resolution which you saw fit to adopt, I had no thought that like Haman of old I should be the first to appear on the gallows which I had moved to erect for another.

*Read before the Ontario Med. Association, June, 1885.

However, being here, in hope that the interest attached to the subject may redeem my faulty presentation of it, I ask your attention to the use of plaster splints and bandages in the treatment of fracture. Of all the materials which may be used to form dressings, soft when applied but rapidly becoming hard and unyielding, this is the best and the best is just good enough till we can improve upon it. Plaster of Paris or gypsum, used in surgical practice by the Arabs in the last century is perhaps not better than when first introduced, but the methods of its use have undergone a process of evolution and are now so perfect as to merit the close attention of each one of us. A clear distinction must be made between such splints, and bandages. By the first we mean supports moulded to a part only of the circumference of a limb or other portion of the body, while by the last we mean dressings which completely encircle the extremity requiring fixation. The two forms of course may approach each other till they meet and merge. As a class the splints are removable at will while the bandages are not so. This distinction is important since the risks belong almost entirely to the bandages, while the benefits can as a rule be obtained by one form or another of plastic splints. Believing that in regard to comfort and security from displacement they are, in the treatment of certain selected fractures better than any other means at our command, I have raised the question of their use in the hope that through you, and with your aid, it may be possible to reach and impress a number of our brethren who either do not use these appliances at all, or do not use them in ways most convenient for themselves and most helpful to their patients. It is to be expected that the discussion evoked will be of greater value than the paper read, since it will become the means of recording a wider experience and reflecting the ideas of others from different standpoints. Let me remind you that your indication of points upon which we differ may be productive of more good than a silent reception of whatever is advanced. With the object of economizing time I shall spare you historical details, shall speak perhaps somewhat dogmatically, and shall give you conclusions rather than the reasons which have led me to them. I shall seek less for originality than for practical utility, and whether speaking or listening shall not forget the saying of Paget, that each one of us has some-

thing which he may teach, and much more which he may learn. If upon some points I enter into detail, it will be because of a belief that in attention to these minor matters lies all the difference between danger and safety, between success and failure. I base what I have to say on what I learned as a student from my old and honored teacher Dr. F. H. Hamilton, of N.Y., on ten years constant use of gypsum dressings, on such study as I have been able to give to the literature of the subject, and on what I have from time to time seen in the hospitals of New York, Boston, and Philadelphia. I trust that some who hear me and who have had trans-Atlantic experience will give us the results of their more extended observation.

Materials—Only the finest and freshest dental plaster should be used. The common sort applied as a hard-finishing by plasterers is not fit for surgical purposes and its use invites failure. The office supply should be kept in tins the covers of which screw down air tight upon rubber rings. Cosmoline tins, of five lbs. size, may be obtained at any drug store and answer the purpose perfectly. In preparing the mixture of plaster and water known as "cream" the solid should be added to the fluid and not the fluid to the solid. About an equal bulk of each makes the proper proportion. Common salt or the sulphates of soda or potassium or alum can be added to the water to hasten the setting of the plaster, while a weak solution of glue or gelatine, if used, would delay such crystallization. Cloth sufficiently porous to allow the plaster to set in its meshes and not simply on its surface is the other essential. The experiments of Drs. Marcy and Nelson proved that the lightest and strongest of plaster dressings were those made from cotton cloth such as is used for printing upon. This, free from fatty matters or starch finish, is only to be obtained from the bleacheries. It differs from cheese cloth as cotton batting differs from absorbent cotton. Cylinders made with it and plaster, crushed down only at a pressure of 110 lbs. while those of equal weight and thickness made from crinoline crushed at 60 lbs., and from cheese cloth at 10 lbs. Acting on this hint I have been in the habit of using cheese cloth for plaster bandages, first preparing it by boiling in an alkaline solution and then in clear water to remove the alkali. I am satisfied that the gain in strength is sufficient to pay for the trouble, but regret that I cannot as yet

make a more accurate statement. The size to be preferred is a width of three inches and a length of three yards. Into the meshes of such bandage material the plaster is to be rubbed by hand, and then each roller is to be wrapped in paper if it is not to be used at once. They can be best kept in the tins covered by a layer of plaster. From unsized cheese cloth, from bleached Canton flannel, from cheap, that is cotton-containing flannel, or from old blanket, all other plaster dressings may be made. As a protection for osseous prominences and as a lining generally for plastic dressings, unbroken rolls of the finest cotton batting, white cotton wadding in roller form or blanket flannel will be required. A solution of the bicarbonate of soda in water or the white of an egg will remove the unpleasant feeling left in the hands after using plaster.

Methods—Upon the principles of the treatment of fractures there is general agreement, but on no subject in surgery do opinions differ more widely than upon the methods by which these should be carried out. In part this is due to the fact that similar good results may be obtained by so great a variety of means. The particular plan employed is of much less importance than the skill and judgment used in its application. A surgeon with strips of wood, padded with moss, and secured by thongs of basswood bark, will succeed, where a mal-adroit backed by a brigade of surgical machinists will fail. Progress of late has been in the direction of simplicity with efficiency, and these are marked characteristics of plaster dressings. The material affords scope for the ingenuity and dexterity of the ablest of surgeons, while on the other hand it may be used in safe and simple ways by any one who will take the trouble to master the *technique* of such dressings. Not to every one is given the ability to invent modifications, as special cases require them, but good methods and correct models are not hard to follow. The plans we shall consider are not the results of any one man's work. Many have labored and we enter into their labors, since that which is of value the profession retains and develops. We may justly claim that

“ All of good the past hath had
Remains to make our own time glad.”

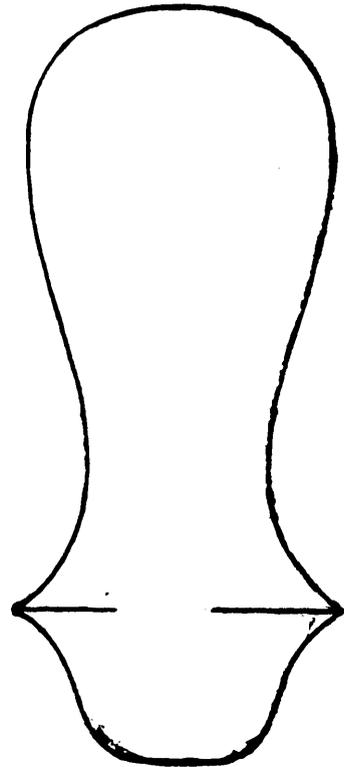
The spiral bandage with plaster in its meshes applied over a leg fracture may be taken as a type of all the uses of the roller. I shall describe some-

what minutely what I hold to be the best manner of its application. The limb, if hairy, is to be oiled, and then it is to be enveloped in a thick layer of cotton batting taken unbroken from a roll. This layer should extend from the toes to the mid-thigh, should meet in the middle line in front and should be held in position by thread wound around the leg. Over this is to be applied with moderate firmness by the figure of 8 turn, and without reverses, a dry cotton roller. This must not be confounded with that relict of the dark ages a “primary bandage.” The gauze cloth or crinoline bandages before described are to be next placed two at a time on end in a bowl of warm water. When the bubbles cease to escape they are taken out pressed to expel surplus water, and are applied from the toes up. No one turn should be drawn more snugly than another. If too tight there is danger of strangulation, while if too loose the risk is that co-aptation of the fragments will not be maintained. Each layer as applied should be well rubbed by the hand to expel the air between it and the one next beneath it. From three to six layers will be required. An assistant is to make moderate extension during the application, and for from ten to thirty minutes afterwards. The heel should rest in his right palm, while his left hand is passed around the instep. If seated comfortably, and able to rest his forearm against his knees he will be able to hold the foot at right angles with the limb, prevent rotary displacement by sighting over the great toe and inner margin of the patella and will not become unsteady through muscular fatigue. To bring the toes up after the dressing is completed is dangerous, since it is apt to constrict at the instep. To allow them to drop is to run the risk of having the heel permanently elevated. When the limb is a heavy one, an inch wide stiffener of perforated tin may with advantage be interwoven in the bandage at each side. When the shell has become fairly firm the limb is to be placed upon a moulded pillow on which in from two to four hours it will become sufficiently rigid to stand being suspended. Such an apparel, light, shapely and perfectly fulfilling the indications, is the one I ordinarily employ in the *later* stages of leg fractures. It gives a firmer support than any hinged splint, and its use will materially shorten the period of confinement to bed. An elevated shoe on the sound side will assist the patient to keep the promise exacted from him that

he will not, till allowed, bear weight on the injured limb while moving about on crutches.

In recent fracture I much prefer an apparel that will allow examination from day to day till the consolidation is well advanced. Even after the most perfect reduction I want to *know* and not simply to *hope* that the fragments maintain their proper position, and that the soft parts over them are in good condition. In 1872 I first applied what is known as the Bavarian or book splint. After using it a few times I began to substitute shaped pieces of cheese-cloth saturated in plaster cream and placed between the inner and outer flannels, for the thick usual layer of solid plaster. With this hinged splint I have treated about thirty fractures of the bones of the leg. It is lighter and stronger than the Bavarian, as ordinarily made, and it can be applied with safety when to use a plaster bandage would be malpractice. By placing the limb first on one side and then on the other the halves of the splint can be raised like lids, and the seat of injury examined without risking in the least a disturbance of the process of repair. I show you one of these, but shall not urge its claims upon you since I wish to use the time at my disposal in advocating a still better and more easily applied retentive apparatus. This is one that I first saw at the Boston City Hospital three years ago. It is known as the "plaster posterior splint," and its development is largely due to the skill and ingenuity of Dr. R. A. Kingman, of Boston. This gentleman writes me that the original idea came from Brooklyn, N.Y., and that his connection with it has been in improving its details and demonstrating its utility and practicability. Through his courtesy I am able to show you three photographs of one of these as applied before the Massachusetts Medical Society last year, after the reading of a paper on the subject by Dr. Geo. W. Gay, surgeon to the City Hospital. I show you also a completed splint and a pattern of the shape into which the material for it was cut. One surgeon, well able to judge, considers this to be the most important advance in the treatment of leg fractures within the last fifty years. Another, and with him I certainly agree, thinks that it comes nearer than any other to being an ideal dressing for a broken leg. Unlike the Bavarian it is always open, permitting sufficient examination without disturbing the limb. It is also far easier to apply, and when applied is self-retaining. It

may be made in this way: The limb is first bandaged with wadding in roller form, enough being used to protect the bony processes and the tendo-achilles from pressure. A single layer of gauze or crinoline large enough to extend from the toes to above the knee, is to be placed beneath the limb closely wrapped about it and cut so as to completely surround it with the exception of a space about an inch wide on the anterior aspect. This piece serves as a pattern by which the other layers, six or eight in all, are cut. The cloth is to be deeply slashed on each side opposite the point of the heel to allow the foot piece to be brought to



Pattern of "Plaster Posterior Splint."

a right angle without forming clumsy folds. The layers are now to be soaked in plaster cream, placed one upon another, applied to the limb at once and moulded closely and carefully to it. At the sides of the ankle where the angles from the foot piece and the leg piece overlap, I find it gives the neatest result if they are interlocked two at a time. A bandage rapidly applied secures a perfect fit of the splint to the limb and can be removed when the plaster has become firmly set. If no bandage be left on the leg the splint will accommodate itself to

any reasonable amount of swelling. Some cases of Pott's fracture with marked eversion of the foot require more powerful pressure to maintain reduction than this appliance can give. For the cases however to the treatment of which it is adapted it will be found a comfortable and efficient, as well as a light, safe and æsthetic dressing. While I would hesitate to advise the adoption of the spiral bandage as a routine dressing for recent fractures, I feel free to say that its advantages can be secured and its risks avoided by the use of the splint just described. Swelling may not, and in the vast majority of cases will not occur if this be early applied. Such swelling is no more a necessary accompaniment of the repair of a fracture than of the healing of a strictly aseptic wound.

For what fractures is the treatment by gypsum to be recommended?—For those of the lower jaw, in which an inter-dental splint either is not required or is not obtainable. Six layers of cheese-cloth (or two of Canton flannel) cut to the proper size and shape, soaked in plaster cream, moulded to the part, coated when hard with spirit varnish to afford protection from saliva and lined with cotton or Canton flannel, will make an appliance as serviceable as any other. A Barton's bandage will retain it in position. I show you one made in this way. A broken clavicle can be treated in half a score of ways, any one of which would fulfil the indications as well as any application of plaster of Paris with which I am acquainted. The humerus broken in any part may be safely and securely retained with its fragments in normal position by shoulder caps, internal angular splints or some combination of these made rigid by plaster. The internal angular splint is also, in my opinion, the best for fractures at or near the elbow. I show you outlines of the shapes into which cloth may be cut to form these supports, and also have here completed splints. The angular ones have no special advantage over those of similar shape which may be made from softened binders-board. No single fracture of the forearm is as well treated by plaster as by properly padded wooden splints. A plaster bandage seems to me to be the worst of all dressings for those which occur near the carpal end of the radius. It tends to press the bones together and to obliterate or narrow the intervening space. It prevents the frequent examinations so requisite here. It constricts a part which being dependant

is apt to swell and it has not even the excuse of adding to the patient's comfort. Just here let me protest against the dangerous doctrine that all may be considered to be progressing favorably if only the fracture gives no pain. The worst results I have ever seen have come from an acceptance of it by those who are using plaster in an unskilled manner. The problem presented by a Colles' fracture is best solved by, first, a perfect reduction and, second, the accurate pressure of a dorsal pad over the lower fragment and a palmar pad over the lower end of the upper one. Such correctly limited pressure is what we cannot get with a plaster bandage, and so I condemn its use here. Under exceptional circumstances a plaster jacket might be advisable over broken ribs, but unilateral strapping with imbricated strips of good moleskin plaster has sufficed in all the cases which I have so far seen. A recent fracture of a thigh bone may be put up by experts in a hospital, where from hour to hour it will be under observation, but under other circumstances this method is not to be commended. The dangers are greater and the results are not proven to be better than by the alternative plans. Drs. St. John, Marcy, Cowling, and Sayre, have urged the adoption of the plaster bandage as a routine dressing for these lesions, but the vast majority of those who, like myself, have fairly and without prejudice tested the plan, have given it up in favor of the two others which have a right to our entire confidence. These are Buck's modification of the weight and pulley extension of Hildamers, and the Smith-Hodgens' oblique suspension. A surgeon at the present day who has had shortening or deformity after a thigh fracture to account for to a jury, will be less likely to be mulcted in damages if he can prove that with intelligent and conscientious care he has used one of the above plans, than if he has put his trust and his patient's limb in plaster, or as Rip Van Winkle might, has depended on the long splint of Lister.

My conviction is that continuous and equable extension, indispensable here, is not maintained by the most perfectly applied plaster bandage, still less by any plaster splint. After fairly firm consolidation I do not object to this form of support, although by it I have seen a knee so stiffened that its patella was fractured in the attempt to regain motion by *Brisment forcé*.

Taking up next the patella I shall only state my

entire approval of the splint made according to the method of the late Dr. J. L. Little, of New York. The oblique strips to fix the patellar fragments, hardening while the fingers of the surgeon hold the parts in apposition, are better than adhesive plaster or anything else of which I have knowledge. Dr. Little's paper can be found in the *Medical News*, March 29th, 1884. With few exceptions fractures occurring below the knee are better treated by plaster than in any other way whatever! A fracture box, filled with oakum, may be used for a few days if swelling is extensive. If not, a hinged or posterior splint, as described, should be applied, and the limb at once suspended. Any blacksmith can make, for a few dollars, a Salter's cradle, which put together with thumb-nuts is very portable. In mine the limb is supported on strips of bandage, exactly as in Hodgen's thigh splint. The saddle pad required to prevent very oblique fractures of the tibia from becoming compound, or used for the same purpose in connection with the V or Y shaped fractures of the tibia, so well described by Gossulur, can be well applied if a posterior splint has been reinforced by three strips of tin in its substance. Time does not obtain for my discussing at any length the subject of compound fractures, yet it is just in this class that plaster dressings have given the most brilliant results. Fenestrated or bracketed plaster bandages, and antiseptic occlusive or "through drainage" methods have changed the prognosis in these injuries, lessening the number of cases that demand amputation, and reducing to a minimum the septic dangers that are to be feared in an attempt to save the limb.

What risks attend their use? These depend on the selection of unsuitable cases, an improper application of the dressings, or an improper management after application. No solidifying dressing should ever be applied to a recently broken limb if much contusion, swelling or ecchymosis exists, or if there is doubt as to the integrity of the deep vessels of the limb. The toes or fingers should always be left uncovered, and should be watched so that on the least evidence of sluggish circulation the encasing material may be cut down or otherwise loosened. Circular compression and strangulation are most to be dreaded. A plaster case may look well and yet be the cause of deadly danger. It cannot be denied that the bad results following the plan of treatment we are discussing are

out of all proportion to the number of cases treated by it. Too frequently the usefulness of the limb and the reputation of the surgeon have been involved in a common ruin. Its intemperate and indiscriminating advocacy by certain men who ride their hobbies with whip and spur, have led to its employment by those not practically familiar with it, and too indolent or careless to become so. Dr. Coskery, for instance, at the last meeting of the Med. and Chir. Soc. of Maryland, stated that "it was highly improper to keep a patient suffering from a simple fracture of the thigh, on his back even for 48 hours. Such treatment would be a justifiable cause for a suit for malpractice. Dr. Sayre in a private letter read at the meeting of the Georgia State Medical Society in '84, said, "I dress *all* fractures simple, compound, comminuted and complicated, immediately after the accident if I can see them before the swelling has occurred . . . and a perfect recovery without deformity is the rule instead of the exception as was formerly the case." Dr. Sayre's statistics, as most of us know, are being constantly, though perhaps unconsciously, moulded to fit his theories. Like a good microscopist, he *can* see anything that he *wants* to see, but it is only just to him to say that he really *does* see more that is commonly overlooked than any other surgeon with whom I have the honor of an acquaintance.

Advantages claimed :

1. The fit being perfect there is little liability to displacement.
2. Support sufficiently firm to prevent displacement is obtained before even the busiest practitioner has to leave his patient. This is not the case with any similar plastic material.
3. Compression is uniform, limiting extravasation and controlling muscular movements.
4. In some form these dressings can almost always be applied at the first visit.
5. The material is always at hand and costs almost nothing.
6. Apparatus made from it can be depended upon not to contract in drying, as those made from other plaster materials do.
7. They are sufficiently porous to permit the escape of the perspiration.

DR. OLIVER WENDELL HOLMES says that a doctor's patients must put their tongues out, and a doctor's wife must keep her tongue in.

RENAL CALCULI.*

BY A. GROVES, M.D., FERGUS, ONT.

In the comparatively brief time allotted to readers of papers before this Association, I propose to discuss the subject of renal calculus, first as to its causes and then briefly indicate the line of treatment I have found most beneficial in my own practice. In order to show that the subject is one of great importance and well worthy the serious consideration of all members of the medical profession, it is only necessary to recollect that forty-seven per cent. of all infants whose kidneys have been examined were found, according to Ebstein, to present evidences of uric acid infarctions, and it is also a well known fact that more than ninety per cent. of all cases of stone in the bladder have originated in a small concretion that had passed down from the kidney.

Several theories have been advanced to account for the formation of renal calculi, such as the catarrhal, the gouty, the diathetic, etc. By those who believe in the purely diathetic origin of calculi it has been argued that there are three diatheses, viz.: the urate, the oxalate and the phosphatic, one of which was the cause of renal stone in any given case. My own opinion is that with some rare exceptions the formation of primary kidney stone depends upon a predisposing cause which may be called the uric acid diathesis, and certain exciting causes incident to the food and surroundings of the individual, together with a precipitating cause without which stone is not deposited. The exciting causes determine the particular variety of calculus which may be found in any given case, but in the absence of the other two factors the exciting causes will not result in calculous deposit.

The mere presence of the diathesis alone will not cause the deposit of stone, for many persons habitually pass large quantities of uric acid without the development of any form of calculus. Ultzman has demonstrated that when the urine is only mildly acid, uric acid is deposited in normal rhombic prisms, but that if the acidity be increased the crystals take the form of elongated, pointed and radiating rods, and that it is precisely these spiny crystals that are found in cases of calculous pyelitis. Dr. Ord shows experimentally that the

form in which uric acid is deposited is often determined by the other urinary constituents. Eichorst cites a case where a gentleman invariably passed several uric acid concretions after drinking moderately of wine, and I have had under my care for some time a patient who is regularly attacked with renal colic during pregnancy, but at no other time.

Persons who are exposed to the same influences and who are similarly nourished, always have the same character of kidney infarction. Thus in the fœtus and young infants, whose nourishment and surroundings are measurably the same, none but uric acid infarctions are found, but the conditions as to food and surroundings being changed other forms of deposit take place.

It would appear that dyspepsia has a considerable effect in determining the occurrence of calculous disease, hence those of sedentary habits are oftenest affected. A purely vegetable diet also seems to tend to the production of stone, and it is admitted by almost all authors that malt liquors have the same effect. Although not proven it is highly probable that diet has a considerable influence in the production of calculi. Cheshire, England, is almost exempt and the people live largely on a mixed diet, into which milk enters in no small amount, whilst Norfolk, with a population of between 400,000 and 500,000 has annually as many cases of calculous disease as the whole of Ireland, where milk also enters largely into the food of the people. Mr. Cadge believes that the great prevalence of stone in Norfolk is to be to a great extent accounted for by the inadequate supply of milk and to the universal prevalence of beer drinking. He is also of opinion that the effect of accumulated hereditary predisposition, in other words diathesis, is a factor entering largely into the causation of lithuria.

It is a doubtful question whether or not water containing lime salts favours the production of stone. My own limited experience would tend to support the opinion that water from limestone rocks has a tendency towards the production of renal stone. I have found that in the county of Wellington, along the Grand River, which runs through limestone rocks, calculous affections are comparatively common, so much so indeed that I rarely find myself without one or more patients suffering from calculous disease. I am at a loss to account for this prevalence of such disease on any other

* Read before the Ontario Medical Association, June 3rd, 1885.

hypothesis than that it is connected with the hardness of the water, for the food, clothing, habits of life, climate, etc., do not differ from the people around them. Dr. Roberts points out that a certain district, a suburb of Manchester, has furnished a considerably smaller number of cases of stone since the use of softer water supplied by water-works has taken the place of hard well water, and he gives no other explanation of the falling off in the number of cases.

Professor Gamgee draws attention to the fact that sheep pastured in limestone districts are particularly prone to become the victims of calculus, whilst under other conditions it is a rare affection amongst them.

In Finland, stone is an almost unknown disease, and the water coming mainly from granite mountains is remarkably pure. The Finlanders however are not addicted to excesses of any kind, live active lives and subsist on plain diet into which milk enters to a considerable extent. Estlander believes that the hot vapour baths common amongst them has a marked influence in securing that immunity which is so remarkable.

It would appear that the negro race are rarely affected with calculous disease, American statistics showing a proportion of not more than one to six of the white population. So far as my investigations have gone, I believe a similar immunity is enjoyed by the American Indian. It would appear that in these races the diathesis is less strongly marked, and that they are less exposed to those influences which tend to cause renal deposits, such as drinking strong or malt liquors, indigestion and sedentary habits.

There are renal stones which may be classed as purely accidental, such as those commonly occurring in Egypt, where the nucleus is found to consist of the ova of the *Diastoma hæmatobium*, also those instances in which blood clot, etc., forms the nucleus. In these cases the formation of stone is secondary, the nucleus being really a foreign body and consequently they ought to be classed separately from those arising idiopathically.

It is a rather remarkable rule, to which there are many exceptions, that only one kidney is affected by calculous deposit in the same patient. The explanation of this peculiarity which I would offer is, that inflammatory or catarrhal attacks probably affect only one kidney at one time as is usual in

other double organs such as the lungs, and that even a mild catarrhal attack produces a colloid material in persons predisposed to calculous disease. Rainey has shown by experiment that the presence of colloid matter causes the precipitation in spheroidal masses of crystalline salts, and this is the form in which uric acid nuclei are found. If only one kidney be attacked by the catarrhal inflammation or by congestion, that alone will be the seat of calculus; if both be attacked then stone formation may take place in both kidneys simultaneously. It might be objected to this theory that many victims of renal calculus have never had symptoms of catarrh of the kidney. My reply is that kidney catarrh usually presents no marked symptoms, and might very easily be overlooked, that in fact catarrh of the kidney is an exceedingly common occurrence. It may be caused by a glass or two of beer, by the chilling of the skin in a cold bath, even by purely mental causes as most people have had more or less demonstration of in their own persons. To epitomize, then, I believe that these three factors are necessary for the production of renal calculus. First a special diathesis, secondly certain exciting causes incident to the ingesta and surroundings of the person, and thirdly a catarrhal or inflammatory attack which acts as the direct cause of the deposit.

With reference to the treatment of an attack of renal colic, I may say that the advice commonly given, viz. : to administer belladonna, opium, diluents, etc., and to place the patient in a warm bath, with the application of wet cups or perhaps venesection, is utterly inadequate to relieve the frightful agony experienced during the passage of renal calculus along the ureter. I speak of what I know, having been myself a victim of the trouble in question, when I advise the administration of an anæsthetic in every case where the pain is severe. Authors generally say that occasionally an anæsthetic may be given. I would be rather inclined to say that one always must be given. Of course in addition, the treatment already mentioned may be employed with the exception of the blood letting which, to say the least, is entirely unnecessary.

As regards treatment to prevent the deposit of renal stone, what I have been in the habit of recommending is careful regulation of the diet and relief as far as possible of dyspeptic symptoms, the drinking of considerable quantities of water which

it is well to have as free from lime as possible; frequent warm baths and the wearing of flannel next the skin; plenty of out door exercise and the avoidance of beer and alcoholic liquors generally. As to medicine I have found nothing give so much relief as carbonate of lithia, in fact I have the greatest confidence in its value in cases of primary renal calculi or a tendency thereto.

Correspondence.

COLLEGE OF PHYSICIANS AND SURGEONS vs. QUACKERY.

To the Editor of the CANADA LANCET.

SIR:—Last fall a quack named Jones came to these enlightened regions, where he remained, doing a first class business, leading the people to believe he had the proper authority to practice, until about a month ago when he suddenly decamped, taking with him the daughter of one of our wealthy farmers, who patronised and opened his house to him. This Jones styled himself "J. r. Jones in the profession of roots and herbs, of Milltown, Ont." I was perplexed at the credulity of the people who told me of his doings, but not wishing to bring him before a magistrate, I wrote to Dr. Pyne, who promised to send a detective down, but the said official came too late to catch his victim.

Jones had his board and lodging gratis among the people for nearly nine months, and is said to have made nearly \$3000. He is about 6 ft. in height, wears a light moustache, and has the features of a hardened and desperate wretch. The detective was much disappointed to learn of his escape, but as there was enough material of the same kind to work up, he had "Dr." Gardiner of Bannockburn arrested, and fined \$28. This man has practiced openly for over ten years in this county; has charged four times more for his medicine than any qualified person, and is let go free for \$28. During the last ten years the College has exacted \$10 from me, to protect me as I understand it, but if I had followed the advice of medical friends, I would not have paid a dollar, for many of them believe the College to be a farce.

The way that quackery is allowed to flourish here, is not at all encouraging to those who are thoroughly qualified, and besides, it is derogatory to the good name of our time-honored profession. The

physicians here have quite enough to do to live respectably, and in many instances they have to establish drug stores, for the practice of medicine would not keep them above want. Yet these quacks who infest our neighborhood, charge just what they please, and collect where we fail. Such practices are a direct encouragement to young men contemplating medicine, to take the road as quacks. The fact is, people seem to have more confidence in the quack, than in the possessor of the M.D., M.R.C.S., etc., etc., and the former makes more money, has less care, and is about as respectable in the eyes of nine-tenths of the people of Canada. With a view to protect ourselves and the public, every physician should, whenever a quack is known to be in his midst, notify the representative of the district of the fact, in order that a detective may be put on his track. It should also be the duty and privilege of the registrar, to erase the name of any member who lends his name and influence, to any travelling concern whose tendency is to deceive the public. Whenever the representatives and the College unite, to protect those who have fulfilled every requirement, all grievances will cease and the profession will be re-instated on its proper level.

PRO ARIS ET FOCIS.

M——, July 20, 1885.

Reports of Societies.

HAMILTON MEDICAL AND SURGICAL SOCIETY.

June 2nd, 1885.

The Vice-President in the chair.

Dr. McCargow exhibited the lower end of the femur of a man whose thigh had been amputated in the hospital by Dr. White. The patient, aged 36, had been admitted to the hospital with the following history:—At 14 years of age received a slight injury on the inner side of the thigh, while sleigh riding; since then has had pain in the knee with swelling, chiefly during changes in the weather and in cold weather. Although knee has pained since the first with the exception of slight intermissions of a few weeks, he has never been confined to bed, and the only treatment has been in the form of external applications. Four months ago incisions were made and a large quantity of pus removed. When admitted, the lower half of

the right femur was found enlarged and hard. The swelling extended to the lower half of the right knee, and the patella was fixed; two openings had been made one on the outer, the other on the inner side of the thigh; the openings had partially closed, but there remained small sinuses from which pus discharged pretty freely. Patient was able to move about on crutches and was not confined to his bed in the ward. Family and personal history were both good, no record of anything specific. A longitudinal section of the bone was shown; there was an abscess cavity in the centre, with thickening and enlargement of the bone. The cavity was six inches long, one half inch wide, but irregular. The cartilage of the knee was intact. The diseased bone was twelve inches long altogether. Dr. Malloch said that when the section of the bone was made there was a piece of necrosed bone in the cavity which would account for the inflammation.

Dr. R. R. Wallace read a paper on "Incisions in Whitlow." Authorities were quoted to show the site of incision preferred. Erichsen recommended an incision on each side of the finger, while Fairlie Clarke advocated incision on one side; others preferred the median palmar; Keetley advised two palmar incisions. The essayist thought that incision in the median line over the unguis phalanx would be likely to divide the digital arteries as they there cross to form an arch, while the great argument in favour of the median incision had always been that it avoided such accident. He believed that in whitlow confined to the unguis phalanx, incision along the side, carried to the bone if necessary, is the best one to practice, for it affords exit to all pus and sloughs, and effectually relieves tension, thus removing the great cause of the agonizing pain, and avoiding at the same time a cicatrix on the most exposed portion of the finger where it impairs more or less the tactile sense. If the incision on one side was not sufficient, the double one should be practiced. When the disease had extended up the finger, and involved the sheath of the tendons, he thought there was no choice but to open the sheath and give exit to the pus, and this he considered was best done in the median line on the palmar aspect. With regard to the question of one long incision or separate ones between the joints, he thought that the arguments in favor of separate ones were

very strong, as there is less liability of causing strangulation over the shafts of the phalanges, and the tendons were not so much exposed or injured by the smaller incisions and the liability of sloughing lessened. Dr. Malloch expressed his surprise at the advocacy of the lateral incision. He said that Ashhurst recommended it because it avoided sloughing, but he himself had never seen it result from the median when incision was made early enough; the only difficulty was in keeping the incisions open, it being necessary to use the probe night and morning. The lateral incision, he thought, would go indirectly to the matter; there was no danger in wounding the arteries and nerves as they would heal readily enough. Other members who spoke all favored the median incision and a good free one.

The Vice-President, Dr. Stark, then showed a specimen, the first phalanx of the middle finger of the left hand. The history of the case was a blow followed by a swelling on the side of the finger, but not much pain; it was poulticed, but an incision was not allowed at first, and when opened it had to be done several times, and finally amputated, and was found to be much expanded, necrosis having evidently taken place.

July 7th, 1885.

The President, Dr. White, in the chair.

Specimens were shown by Dr. McCargow of two kidneys containing a number of gummatous growths, the following report being given of the case by Dr. J. Cochrane:—When the patient entered the hospital there was no history of syphilis to be obtained. Soon afterwards two growths like horns appeared on the forehead, evidently of a fibroid nature.—Afterwards chest symptoms appeared, there being effusion, which, after a small amount of fluid was withdrawn by a hypodermic needle, seemed to subside. There was also noticed a gradual hardening of all the glands of the body. Specific treatment was adopted but was of no benefit, the patient dying of exhaustion. Post mortem—there was thickening of the pleura and general adhesions; the cavity contained between eight and twelve ounces of fluid; there was also effusion into the pericardium. The left lung was healthy, but there was great fibroid thickening of the right, there being a fibrous band passing through it from pleura to pleura. Liver and spleen were healthy, but the kidneys were enlarged and congested and contained a num-

ber of large yellow gummata. The peritoneal glands were enlarged, while the glands of the groin were broken down. In reference to this case, Dr. Woolverton, under whose charge the patient had been, stated that at first she had indefinite pains in her legs; the growth on the right frontal region had increased in size up to the time of patient's death. Two months before, she began to have cough and continued elevation of temperature, the dulness extended rapidly and the chest was seen to be enlarged; after the exploratory aspiration the effusion seemed to decrease, and friction râles were heard, so further operation was postponed; the symptoms improved for a while, but afterwards enlargement again took place, and death at the last was rather quicker than expected. The disease of the lungs he considered to be syphilitic.

Dr. Malloch thought that it was a case of tertiary syphilis, and that the swellings on the scalp were not properly interpreted, for if their softness had been considered, they would not have been thought secondary, as they had been suspected to be.

The other specimens shown were a uterus with a growth attached to the fundus of the size of a strawberry, and two intermuscular growths, and a portion of cancerous liver. The history given by Dr. Cochrane was as follows: There were no definite symptoms at first except an inability to retain anything on the stomach, which was thought due to alcoholism; afterwards the condition of the liver was diagnosed. The patient's illness was not of long duration. Post mortem—the liver was found to weigh over five pounds and was studded with cancerous masses, some of them as large as half an orange. In regard to this case, Dr. Mullin inquired if there was any primary seat of the cancer, and was inclined to think it might be in the uterine growths. Dr. McCargow thought it was in the liver itself, and that all the symptoms pointed to malignancy. Dr. Mackelcan inquired if there was any ascites, as in his experience it was generally present in cancer of the liver. Dr. Griffin asked if there was any disease of the pancreas, but none had been observed.

Dr. Hillyer then read a paper on "Typhoid Fever," giving an account of an outbreak of an epidemic character which occurred in the county of Norfolk, in April, 1860. At the time there was a good deal of discussion as to the nature of the outbreak, some of the local physicians calling it typhus,

some pernicious, some typho-malarial, and others typhoid, there being such a variety of symptoms as to warrant the differences of opinion. The epidemic extended over an area of from 10 to 12 square miles, amongst a poverty-stricken and hardworking backwoods population. The disease was first noticed amongst lumbermen who had come from Illinois, where a similar epidemic had been raging. Out of five members in the first family attacked, the mother and three children died. The second family attacked were relations, and had visited the infected dwelling while they themselves lived in a one-roomed badly ventilated house. The symptoms presented by those attacked first were typical of the epidemic, and were as follows: epistaxis occurring early with decided chills, followed by fever, flushed and dusky complexion, accelerated pulse, furred tongue, and general feeling of languor and debility. After the first few days when there was an intermission, the fever gradually became continuous. Nervous symptoms also were present, viz: restlessness, aching of the back and limbs, headache and insomnia. The bowels were loose with the characteristic discharge. As the disease advanced, the pain increased in the right iliac region, abdomen became tympanitic, tongue dry, swollen and of a brownish color, which gradually increased to black. A petechial eruption appeared over the body, with sudamina on the neck and portions of the chest; black sordes appeared on the teeth and gums, and delirium with a general typhus condition supervened, while there was a pungent and penetrating odor from the body. The patients evinced great feebleness, while the skin showed great lack of vitality, sloughing taking place on blistered surfaces. Finally the pulse gave way and became excessively frequent and fluttering, the extremities cold and clammy, and the abdomen enormously distended. After referring to some cases which presented different symptoms, and more of a typhus character, there being no enteric symptoms, costiveness being present from the outset, while in others gastric symptoms were most prominent, he proceeded to speak of the contagiousness of the epidemic, instances being noted where those who had gone away to escape the disease had been stricken down with it, while on the other hand, those who had been constant in their attendance had in some cases escaped. Another feature of the epidemic spoken of, was, that for months, wherever its taint

extended, all forms of inflammatory action assumed an asthenic type, and typhoid symptoms were sure to develop. The writer then took up the nature of the epidemic, after which he gave an account of the treatment adopted. This was chiefly of an expectant nature with special treatment of an ordinary kind for the ordinary symptoms. A discussion followed, the general idea being that the epidemic was one of typhoid. Some conversation also took place on the question of what constituted typhoid fever, and whether it could exist without the special enteric symptoms.

NOVA SCOTIA MEDICAL SOCIETY.

This Society met at Halifax on Wednesday, June 17th, the President, Dr. Macpherson, of North Sydney, C.B., in the chair. Dr. Sinclair read an interesting paper on "New Remedies in Insanity and other Diseases of the Nervous System," and reviewed the evidence in favour of the four following remedies: 1. Paraldehyde. This drug was first introduced by Cernello, of Palermo, in 1882. It is formed from an aldehyde or dehydrogenated alcohol by the action of an acid, and has the formula $C_6H_{12}O_3$. When acted upon by chlorine it is said to be converted into chloral. It is a sedative and hypnotic, and its advocates claim that it has all the good qualities of chloral without its dangers. No nausea, depression or headache have been known to follow its free administration. The taste is disagreeable and difficult to disguise; the best vehicle is ice water in large quantity. The dose of paraldehyde is ʒss. to ʒi. Dr. Andrews, who had experimented largely with the drug, thought it supplied no demand not already met by other agents, which had their own advantages. 2. Nitro-Glycerine, or Glonoine. The theory of its action is, that it reduces arterial tension by paralyzing the vaso-motor nerves, thereby dilating the blood vessels. It has been recommended in angina pectoris, valvular disease, weak dilated heart, albuminuria, chronic Bright's disease, asthma, epilepsy, migraine, and some forms of insanity. Dr. Sinclair's experience both with this drug and with nitrite of amyl, was that in epilepsy the number of fits were increased. 3. Jamaica dogwood (*Piscidia Erythrina*). He used it in doses of fifteen minims to ʒij. of the fluid extract. As an hypnotic it failed but proved satisfactory as an anodyne. In the severe frontal headache of epileptics, one drachm doses either alone or in combination with bromide

of potassium or chloral produced unquestionable benefit. In two cases of dysmenorrhœa, relief of most agonizing pain was speedily obtained. 4. Hyoscyamine and hyoscine. The writer began his experiments with the crystals, using a solution in glycerine and alcohol, and giving it in doses of $\frac{1}{6}$ to $\frac{1}{4}$ of a grain. In acute mania he produced the full physiological effects, and even when its toxic effects were present only temporary quiet was produced. Pushed to this extent grave symptoms were produced, such as irregular pulse and respiration, congestion of the head and face, cyanosis and dryness of the mouth and fauces. The freshly made fluid extract of hyoscyamus in doses of ʒss. to ʒiss. gave much better results. He has practically discarded the crystals. The amorphous hyoscyamine is essentially distinct from the crystals and consists of at least two crystallizable salts, and to this compound it is proposed to apply the name hyoscine. It is a feeble sedative to the spinal and respiratory nerve centres and a dominant hypnotic upon the brain. In doses of $\frac{1}{100}$ gr. hypodermically it produces calm and sometimes sleep. Dr. Wood used it in nine cases of insanity with great violence and sleeplessness. In all cases quiet resulted and in some sleep, varying from 4 to 6 hours. He recommends it in asthma, whooping cough, and delirium tremens.

A discussion followed in which Drs. Parker, J. F. Black, Smith and Lindsay took part.

Dr. Farrell read a paper on "Excision of Joints," and gave the results of cases treated by him in the Halifax Hospital. Two patients were exhibited in whom the elbow had been excised with excellent results. The other cases referred to were, two of the knee and three of the hip. He laid great stress upon operating before suppuration began to discharge externally. For scrofulous arthritis, excision in almost all cases, is advisable. Under six and after forty the mortality is much greater than at intervening ages. Resection of the hip will be more frequently performed, the mortality being 25 per cent., when left alone 50 per cent.

An interesting discussion followed in which Drs. Muir, Macdonald, Stewart and Somers took part.

Dr. J. F. Black read a very interesting and lengthy paper on "American Medical Institutions," being notes taken in his recent visit to the hospitals of Montreal, New York and Philadelphia.

Dr. J. W. Macdonald read a paper on "Dynamite Accidents," with cases occurring in his practice as Medical Officer of the Steel Company of Canada. During the last five years he had found that an accident had occurred for every seven tons of the explosive used.

Dr. Dodge read an interesting paper on "Injuries of the Eye," with cases from his own practice. These cases were intended to illustrate various forms of injury to the cornea, iris and lens. Wounds of the cornea when made with a sharp cutting instrument were not necessarily serious, unless from their extent. When made with a rough irregular edge they were often very difficult cases to deal with. If the iris were wounded at the same time the injury was more formidable; and very soon severe inflammation led to more or less loss of sight, and if treatment were delayed for a few days total loss of vision frequently ensued. Wounds of the lens also often proved serious. Two very interesting cases were related in which a piece of metal was lodged in the iris; another a case of injury from gunpowder destroying the transparency of the greater part of the cornea, except the upper border, which was partly concealed by the lid. Iridectomy was afterwards performed and section of the superior rectus was subsequently made to uncover the clear portion of the cornea, allowing the ball to roll downwards and thus assist the sight. A case of wound of the cornea extending into the sclerotic was next given. A stitch was placed in the sclerotic and a good result followed.

Dr. Andrews read notes of a case of "Rupture of the Kidney," and Dr. DeWitt reported two cases of empyema successfully treated. Want of space prevents extended reference to these valuable papers.

Dr. A. P. Reed read a paper on "The progress of Medicine." Dr. Campbell on "Hereditas as a Causative Influence in Progressive Muscular Atrophy." Dr. Moore on a peculiar case of "Mental Derangement due to Excessive Use of Alcohol." Dr. Stewart on "Physical Education," and Dr. Mackay (Reserve Mine), on "Cases of Obstetric Interest."

By a resolution of the Society Drs. Macdonald, Stewart and Mackay were requested to have their papers published.

The following officers were elected for the ensuing year: Dr. Stewart (Pictou), President; Drs. Sinclair and Mackay, Vice-Pres.; Dr. J. W. Macdonald, Secretary and Treasurer.

Selected Articles.

STRICTURE OF THE URETHRA.

The following cases of stricture of the urethra, under the care of Mr. Paul, Royal Southern Hospital, Liverpool, which we publish, are of interest, each of them being complicated and requiring special treatment. Wheelhouse's operation, which was performed in one case, was described by him in 1876; but, as Mr. Paul observes, it is not necessary to use the special instruments then brought forward, success being equally obtained with instruments which are in almost daily use.

CASE 1.—Josiah C—, aged fifty-four, a seaman, had suffered many years from stricture (he says thirty), but had never been treated for it. He sought admission on account of a perineal abscess. Under ether the abscess was opened, the stricture divided, and a full-sized gum-elastic catheter passed and tied in. On the third day the catheter came out and was not reintroduced, a Lister's bougie being passed daily instead. At the end of two months he was discharged almost well, but warned to attend as an out-patient for some time to get the bougie passed, as the stricture showed a strong tendency to contract again. He was an extremely nervous man, and once out of the hospital had not the pluck to continue treatment, the result being that in the course of a few months he had another urinary abscess worse than the first. He kept away from the hospital until he found that he was getting in a very bad way, when he returned in the following condition: the scrotum and the whole of the perineum and neighboring parts were brawny and tender. Just behind the former was a ragged, foul-smelling sore, eating deeply into the perineum along the tract of the original fistula. Its edges were hard and epitheliomatous in appearance, and upon scraping the surface of the sore the characteristic "nest cells" were found in abundance. The disease was too far advanced to permit of any attempt at removal, and came to a fatal end in about three months, the actual cause of death being cellulitis. At the post-mortem the growth was found to be limited to the perineum and neighboring glands, involving all the parts down to the arch of the pubis and spreading freely into the scrotum. The prostate and bladder were quite free.

Remarks.—I believe that this is a very rare sequence to a urinary fistula, and it is very unfortunate that there were no means by which the exact origin of the epithelioma could be determined. It is difficult to distinguish microscopically epithelioma of the bladder from epithelioma of the skin, and the same holds good with the urethra. The whole case lasted only ten months. When first seen, the skin of the perineum was unbroken, it was quite free from growth two months later,

and then, at the end of another five months, was the site of a large and very deep epithelioma. Under these circumstances, I inclined to the opinion that the growth commenced in the urethra, and was excited by the prolonged stricture; just as simple syphilitic stricture of the œsophagus sometimes ends in epithelioma of that structure.

CASE 2.—James P—, aged thirty-four, had gonorrhœa when a lad and had suffered from stricture for the last sixteen years. He had often been under treatment at the various hospitals in the town, but had never had anything larger than a No. 6 or 7 passed, except on one occasion when Mr. Harrison ruptured the stricture with Holt's dilator. After this he learnt to pass a catheter for himself, but had only used the smaller sizes, and came to the hospital, as he could get nothing more in and was scarcely able to pass his urine. On admission, he was in good general health. There was a cartilaginous stricture in the perineum which would just admit the smallest soft bougie. The urine was foul and contained a quantity of mucus. At the end of three days no dilatation had been effected with catheterism, and the bladder symptoms were becoming more urgent; Wheelhouse's operation was therefore performed at once. The patient was placed in the lithotomy position, and a long silver probe passed down to the stricture. An incision was then made on to the end of the probe, which was pushed out of the wound and bent into a hook. The sides of the urethra were held open with artery forceps, a grooved probe insinuated through the stricture, which was divided, and the probe passed on into the bladder. It was now quite easy to pass a full-sized Lister's bougie from the penis to the bladder; so the patient was sent back to bed without having a catheter tied in. At the end of a week the urine was quite clear and all irritation of the bladder had ceased; so, instead of the daily passage of a bougie, a large gum-elastic catheter was tied in. While the catheter was kept in all the urine came by it, and the wound healed rapidly. It was removed in ten days, and the patient taught to pass a No. 12 Lister's bougie, and discharged a few days later. Altogether he was in the hospital only from Jan. 12th to Feb. 7th.

Remarks.—I send this straightforward case for publication because I have so often felt the advantage of an early operation of this nature in stricture cases, and because I often notice that my surgical friends, while they laud the method advocated by Mr. Wheelhouse very rarely seem to adopt it. In the hands of specialists internal operations upon the urethra are much in vogue; at present I have never either split or divided internally a stricture, except in the penis, preferring in all cases where an operation is necessary to do perineal section. I think it is a pity that Mr. Wheelhouse recommends special instruments for

his operation, as it is quite as easy to do it with those always at hand; and, with all due deference to his opinion, I do not find his sound and forget of any material assistance, while their absence might influence some to attempt a different method of giving the necessary relief to the patient. In this case a catheter was not tied in at once on account of the cystitis; and at the conclusion of the treatment I adopted my usual practice of teaching the patient to pass a large metal sound for himself. It is the only permanent cure for most strictures, though but few, of the hospital class at any rate, are wise enough to adopt it.

CASE 3.—James F—, aged twenty-seven, had gonorrhœa some years ago, but passed urine in a full stream until about twelve months back, when he had his first attack of retention of urine after a drinking bout. Since then, under similar circumstances, he has had three or four more attacks of retention, and at the same time the stream of urine has been steadily diminishing in volume during the intervals. On Feb. 2nd he was drinking, and on the morning of the 3rd was again attacked with sudden and complete retention. Relief had been attempted by catheter, and he bled profusely, but no urine was drawn off. He was admitted with the bladder moderately distended in the afternoon, and was in great pain. A metal catheter was passed into the urethra, but opposite the bulb left it for a false passage, and on withdrawing the instrument he at once strained away about an ounce of blood. Under these circumstances a morphia injection was given, and he was ordered to have a hot bath shortly, to be followed by hot fomentations to the abdomen, and further morphia if necessary. In the evening, though the treatment had given some relief, not a drop of urine had been passed, and it was therefore deemed advisable to puncture per rectum. The next day he was perfectly comfortable, and the urine was draining freely through the canula. On the 5th, after plugging the tube, he was able to pass urine by the penis, and it was consequently withdrawn. 6th.—Had a rigor, with nausea, headache, and diarrhœa. Temperature 104°. Ordered five grains of quinine every four hours. 7th.—Temperature fell below 100°, and became normal in a few days. The quinine was stopped on the 9th. 12th.—Soft bougies passed. No. 3 was the first to be gripped by the stricture, which was dilated to No. 6. 24th.—The patient was discharged with the stricture fully dilated.

Remarks.—In a case of this kind, I think the choice lay simply between aspiration of the bladder and puncture per rectum. I chose the latter entirely on account of the false passage. In acute retention, when, though the urethra is uninjured, no instrument can be passed, aspiration is called for, and will almost invariably not have to be repeated, since the relief afforded by it, together

with other suitable treatment, will permit the swelling and spasm of the urethra to subside, and in the course of twelve hours either the patient will have passed urine naturally, or it will be possible to introduce a catheter. But when a false passage is present, and it is extremely inadvisable to interfere with the urethra for a least a week or ten days, the better plan is certainly to adopt puncture per rectum, and retain the canula *in situ* until the power to micturate has returned. The pyrexial attack on the 6th I believe to have been due to some urine filtering into the false passage and permitting septic absorption, as no instrument was passed until the 12th, and no trouble of any kind appeared in connection with the rectal puncture. I am a strong advocate for early operation in all cases of obstruction to the outflow of urine, when that obstruction cannot be easily overcome by catheterism. We ought to remember that the kidneys are the only part of the urinary tract of vital importance, and, sooner than permit their structure to be damaged, a clean incision should always be made into the urethra or bladder, as the case may require. Sadly too often, while we are wasting time over a cartilaginous stricture with small bougies, pyelitis is grafted on to cystitis, and suppurative nephritis may develop at any moment, and show too late the danger of delay.—*Lancet*.

A CASE OF TRAUMATIC ANEURISM.—In the *New York Medical Journal* for May 23rd Dr. Theodore McGraw of Detroit relates an interesting case of traumatic aneurism of the subscapular artery. The patient was a Pole twenty-seven years of age, who received three stabs about the shoulder in December, 1881, one of which was followed by an enormous extravasation of blood that was in due course absorbed. Three years later he came under Dr. McGraw's care with a rapidly growing pulsating swelling in the axilla, which had all the usual characters of an aneurism. There was no alteration of the radial pulse. Its increase in size was so rapid that treatment had to be resorted to at once. The first step of the operation was to make an incision above the clavicle, through which the subclavian artery could be compressed. A free incision was then made over the tumour, and carried through the pectoralis major muscle, and attempts were made to detach the thick sac of the aneurism from the surrounding structures. When this step of the operation was about half completed, the sac ruptured, and thinking that the attempt to isolate it must be abandoned, the sac was freely laid open, and the mouth of the artery controlled by the finger; but after many efforts it was found quite impracticable to free the mouth of the artery and to throw a ligature around it, for the sac was formed of very dense tissue, and was firmly adherent around the wounded artery. Dr. McGraw thereupon returned to his original plan, and

with ease separated the fundus of the sac from the ribs and the anterior and posterior walls of the axilla, and then ligatured its neck. After this the axillary artery was with comparative ease freed and tied above and below the origin of the subscapular branch, which was found to open into the aneurism within half an inch from the parent trunk. Arguing from this case, Dr. McGraw advises that while Syme's operation is suitable for cases of ruptured artery, it should not be adopted for traumatic aneurism where there is a well-formed sac. It is pointed out that it may be impossible from the interior of an aneurism to free the artery sufficiently to ligature it without imperilling contiguous arteries, veins, or nerves, while the detachment of the sac may be a comparatively easy and rapid procedure if done systematically. A ligature can then be tied around the neck of the tumour, and all danger of hemorrhage avoided, and if the fundus of the sac be cut away the field is comparatively clear for the final steps of the operation. It is undoubtedly a dangerous and difficult matter to clear an artery from the inside of the sac of an aneurism, and where the sac is sufficiently dense to permit of it, the plan of operating proposed by Dr. McGraw offers decided advantages.—*Lancet*.

THE USE AND ABUSE OF THE TAMPON IN ABORTION.—The tampon as a means of arresting hæmorrhage from the cavities of the body or from wounds has been known to the profession for many years. It seems a very natural thing, when blood is escaping with dangerous rapidity, to apply a plug of some sort to stop the leak. There are some things to be guarded against, however. That the bleeding is actually arrested, and not merely diverted into another channel, is of primary importance. Again, there are conditions in which the plug may do mischief. As applied to uterine hæmorrhages, these two elementary principles are so well known that no one will question the correctness of either. A woman with the vagina firmly plugged may bleed to death into the cavity of the uterus. A tampon allowed to remain too long may do harm in various ways. A tampon injudiciously applied may precipitate the catastrophe it was intended to avert. Of this injudicious application of the tampon in cases of threatened abortion it is the purpose of this paper to treat.

Dr. Keene then quotes the views of Leishman, Playfair, Tyler Smith, Cazeaux, Shroeder, Lusk and others and says: Now, out of this mass of authority, sometimes conflicting, but generally unanimous, what deductions are to be drawn? That the tampon is to be used as a last resort, and only where the hæmorrhage is dangerous or the abortion clearly inevitable. We have, moreover, the observation of so experienced an obstetrician as Shroeder, that the hæmorrhage of abortion is seldom dangerous and scarcely ever fatal—a view which

Lusk seems to share. Of course, in their hospital experience, a physician is always at hand to meet any emergency, while in private practice, and especially in the country, another condition of things prevails. Yet it seems that enough has been said to indicate plainly that the routine practice of plugging, in threatened abortion with but slight hæmorrhage, merely as a precautionary proceeding, has no countenance from the authorities.

Besides the natural bias of the physician's mental makeup—his individual personal equation—his views will vary as his experience has been large or small. To a beginner, the loss of a slight amount of blood from the uterus of a pregnant woman is fraught with direful forebodings. As his experience widens, hæmorrhage will become dangerous less frequently, abortion will take its place under the inevitable class with much less facility, and the tampon will be employed only to fulfil its two legitimate indications.

The young practitioner is not the only offender in the over-free use of the tampon. His older brother may well look to the well-worn grooves in which his practice moves more or less smoothly to discover whether he, too is not a devotee of the tenet that the fœtus has no rights which the physician is bound to respect. The tampon is legitimately employed only when for good and sufficient reasons it is necessary to terminate gestation.—*Dr. J. W. Keene, New York Med. Journal.*

CONFESSION NO PROOF OF GUILT.—The *Lyon Medical*, of April 28th, 1882, refers to the case of a girl, aged twenty, supposed to be seven months pregnant. After an attack of hæmorrhage, her size seemed to have considerably diminished; and the girl being closely questioned on the subject, said that, becoming aware of the discharge, she repaired to the closet, where she stayed ten minutes. She added that all had escaped, but that she had not time to look, as she was being called by her mistress. A midwife and the parish surgeon both declared that the girl had been recently confined. She was now again assailed with questions, and told that, for her own sake, she had better make a clean breast of it, as no fœtus had been found in the closet. Perhaps, it was suggested, she had thrown it into the pigsty. The poor creature at first denied such a thing, but at last confessed that it was so. A search was made but no child was discovered. She was tried for concealment of birth, on her own confession, and sentenced to six months imprisonment. The girl had not been taken into custody in consideration of her free confession, and she quietly proceeded to the goal. When admitted, it was found that she was far advanced in pregnancy, and soon gave birth to a healthy girl. By the French law she could no longer appeal, as more than ten days had elapsed since the verdict; but the judge, having the power of appealing within two months, did so, and the girl was acquitted.

This case shows that confession, which is looked upon as the clearest proof of guilt, can not always be relied upon. And what shall we say of the surgeon and midwife? The examination was probably hurried and incomplete, and the conclusion arrived at on seeing the signs of recent abundant hæmorrhage. This case, even in a simple obstetrical point of view, is full of valuable hints.

TREATMENT OF HEMORRHAGE AFTER OPERATIONS ON THE RECTUM.—Mr. Samuel Benton (*British Medical Journal*) brings to the notice of the profession a useful instrument for checking hæmorrhage after rectal operations. It consists essentially of a piece of catheter tubing surrounded by a bag of thin rubber. When introduced into the rectum, the rubber bag is inflated to any extent required, and so a considerable amount of pressure may be brought to bear on the bleeding surface, in the same way that a similar apparatus is used for the relief of epistaxis. Mr. Benton's bag is constricted in the middle (like a Barnes' bag), so the amount of pressure on the sphincter will not be too severe. The catheter tube, by allowing the escape of flatus, contributes much to the comfort of the patient. The inventor considers that, in addition to its use as a hæmostatic, it will prove serviceable in the treatment of some rectal disease: where even pressure is indicated, as in non-malignant tumors of the rectum.—*Annals of Surgery.*

ENDOCARDITIS.—When endocarditis is found to be present, Dr. C. Paul, *L'Union Méd.*, applies a large blister over the region of the heart, orders rest, and prescribes some cool acidulated drink. If the disease occurs with articular rheumatism and sali-cylate of soda or sulphate of quinine is found efficacious, its use is continued as long as the pulse is not too rapid and irregular. If, however, the heart's action is disturbed, tincture of digitalis is to be given in doses of twenty drops twice a day, and gradually increased to sixty or eighty drops. The dose should not be increased until two days have elapsed, and as soon as the heart's action becomes regular the remedy may be diminished in quantity or suspended. The tincture of convallaria maialis, in doses of seventy-five minims per diem, may be given in place of the digitalis. As soon as the pulse becomes regular, recourse must be had to tonics, and especially the soluble ferruginous preparations.—*N. Y. Med. Record*, May 23d.

BRONCHITIS WITH VALVULAR HEART DISEASE.—Prof. Bruen, Phila., at his clinic, speaking of such a case, said:

My own experience in the treatment of simple bronchitis has been that the expectorants designed to increase secretion of the bronchial mucous membrane may be at first freely given; but their

use should not be prolonged, but should soon be substituted by the stimulative expectorants. I have found that if the bronchitis is not rapidly cured by these, but passes into a subacute condition, more can be accomplished by building up the general strength than by acting on the bronchial mucous membrane directly. In cases of cardiac bronchitis a great deal can be accomplished by building, not only by acting on the heart directly, but also by the use of such drugs as strychnia, arsenic, and iron.

We shall prescribe for this man the following pill :

R	Strychniæ sulphatis,	
	Acid. arseniosi	aa gr. ss.
	Pil. ferri carb.	grs. xxiv.
	Oleo-resinæ capsici	gtt. vj.
	Extracti gentian	grs. xij.

M. et. ft. pil. No. 24.

Sig.—One, three times a day.

An especial reason for using strychnia is that it increases the depth of the respirations, and thereby facilitates oxygenation of the blood, which is interfered with by the weak heart.—*Med. & Surg. Rep.*, May 23rd.

HAY FEVER AND ITS TREATMENT.—In this connection we may call attention to the new work of Dr. Sajous on "Hay Fever and its Successful Treatment." According to his views, hay fever would exemplify that form of asthma which Curschmann has never met,—the form in which the cause resides in the brain and nervous paths which lead from the brain to the respiratory apparatus. For, according to Dr. Sajous, persons subject to hay asthma possess, as the result of heredity, diseases implicating markedly the nervous system, nerve centres which have become abnormally sensitive and are therefore inordinately influenced by the external irritants to which they respond. But this is not the whole of the pathology of hay asthma, according to Dr. Sajous. Not only must there be a hyper-excitability of the nerve centres, but the nasal mucous membrane must be hyperæsthetic, and capable of transmitting to the abnormally sensitive nerve centres the impression made upon them by external irritants, which are supposed to be the pollen of flowers and certain other unknown elements which prevail only from June to September. Given the absence of any one of these conditions and the patient is spared the attack. The absence of the physical element, whatever it may be, which causes the irritation may be secured by removal to certain localities where it does not prevail.

Dr. Sajous secures the removal of the irritable mucous membrane by eliminating, first, the abnormal conditions of the mucous membrane, that is the swellings, hyperostoses, etc., by suitable treatment; and second, by cauterizing the hyperæsthetic nasal mucous membrane, and thus rendering it in-

susceptible to the irritating agencies. This is the new and successful treatment of hay asthma, in the early use of which Drs. W. H. Daly, of Pittsburg, J. A. Roe, of Rochester, and Prof. Harrison Allen, of Philadelphia, have, also, been conspicuous. We sincerely hope that further experience may confirm these preliminary statements, and that "hay" or "rose" asthma may no longer be the opprobrium it has always been to the science of medicine—*Med. News*.

COCAINE IN BURNS.—Dr. Weiss writes:—On December 25th, I was called to Professor L—. An atomiser he was using had exploded, and the hot steam badly scalded the Professor's lips, nose, cheeks, and forehead. Pain was so intense that I apprehended general convulsions. I sent for sundry topical remedies, amongst them a two per cent solution of hydrochlorate of cocaine. In the meanwhile I covered the injured parts with pieces of cloth dipped in olive oil; on the top of these I applied ice water compresses, renewing them every minute, without affording the slightest relief. When the medicaments arrived, I touched the injured parts with a hair-pencil dipped in the cocaine solution. I had scarcely finished when all pain had entirely vanished, without any return. At my visit in the evening I found the patient quite easy and in good spirits.—*Wiener med. Woch.* Jan. 8, 1885.

[It is also useful in the treatment of sore nipples.]

AN INGENIOUS EXPEDIENT.—Recently I was called to examine a woman who has had vesicovaginal fistula for years. The sufferer has kept herself cleanly and comfortable by using in the vagina a globular pessary made of compact sponge. The fistulous opening is near the urethral outlet; and the pessary holds the false orifice so high that the urine can be retained for hours. The patient never urinates, but evacuates the bladder every three or four hours through the agency of a catheter—an instrument she has become expert in using. The expedient might possibly be adopted in some cases where an operation for closure of the rent is not practicable. I commend the ingenuity of the woman who, unaided by even a professional suggestion, has kept herself from being offensive to herself and others.—*Eclectic Medical Journal*.

ENTERITIS CAUSED BY CORROSIVE SUBLIMATE.—Dr. J. I. Peabody read a paper recently before the Practitioner's Society of New York, on toxic enteritis caused by corrosive sublimate as a surgical dressing. Attention was first directed to this by reports of cases found in German medical journals. In the records of the New York Hospital eleven cases were recorded in which an obstinate diarrhœa followed the use of sublimate as a surgical dressing. Seven of these proved fatal. Autopsies in three of them showed extensive diphtheritic inflammation of the large intestine.

THE CANADA LANCET.

**A Monthly Journal of Medical and Surgical Science
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Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Advertisements inserted on the most liberal terms. All Letters and Communications to be addressed to the "Editor Canada Lancet," Toronto.

AGENTS.—DAWSON BROS., Montreal; J. & A. McMILLAN, St. John, N.B.; GEO. STREET & Co., 30 Cornhill, London, Eng.; M. H. MAHLER, 23 Rue Richer, Paris.

TORONTO, AUGUST, 1885.

The LANCET has the largest circulation of any Medical Journal in Canada, comprising four-fifths of the entire Medical Profession.

INTERNATIONAL MEDICAL CONGRESS.

Our readers are already aware that it is intended to hold the International Medical Congress in Washington in 1877. A committee of arrangements consisting of seven members, with power to add to its numbers, was appointed at the meeting of the American Medical Association in 1884, to extend an invitation to the Congress to meet at Washington, and in case of an acceptance, to make all necessary arrangements for the meeting and to solicit funds for that purpose. This committee was composed of Drs. Austin Flint, Sr., and L. A. Sayre, New York; I. Minis Hays, Philadelphia; C. Johnson, Baltimore; H. F. Campbell, Georgia, and J. S. Billings and J. M. Browne, of the U. S. army and navy respectively. The invitation was accepted, and to this committee about twenty additional members were added, among others, some "new code" men of note, and a meeting was held in Washington and a plan of organization adopted. The list of officers, and numbers of sections (nineteen in all) were published in the medical journals of the United States and foreign countries, and met with general approval. Everything went smoothly as a marriage bell until the meeting of the American Medical Association in New Orleans in May last, when a few turbulent spirits of the "rule or ruin" type, to be found in all assemblies, took exception to the action of the committee on the ground, first,

that it had recognized "new code" men; and, secondly, that the south and west were not fairly represented in the Congress, the majority of the officers having been chosen from among the eminent names in the East—New York, Boston and Philadelphia. "New code" prejudices and local jealousies were too much for the serenity of the Association, and the upshot was the appointment of a mammoth committee of 38 members, representing every State and Territory in the Union, Army, Navy, etc., to be added to the original committee, with power to alter or amend the action of the former committee, as it might deem best. This committee met in Chicago on the 24th of June, and, as might have been expected, there was a lively time. Only two members of the original committee put in an appearance, viz., Drs. J. S. Billings and I. Minis Hays, while twenty-four of the new members were present. Dr. Cole, of California, was appointed chairman, and Dr. Shoemaker (one of the leaders in the crusade against the original committee) was appointed secretary. The committee then proceeded to the work of revision. They first deposed Dr. Bowditch, of Boston, from the vice-presidency of the Congress, because of alleged "new code" sympathies. The following chairmen of sections ("new coders") were also deposed, viz., Dr. Noyes, on Ophthalmology, Dr. Lefferts, on Laryngology, and Dr. Jacobi, on Diseases of Children. The nineteen sections were reduced to sixteen, and the membership of the Congress was confined to delegates from the American Medical Association and societies in affiliation with it, thus excluding all from the Congress who are not in full sympathy with the American Association, and carrying the "code" quarrel into the Congress. When the result of the committee's deliberations became known, meetings of those interested were held in Boston, New York, Philadelphia, Baltimore and Washington, and resolutions were passed expressive of disapproval of the action of the committee, and refusing to have anything to do with the Congress under the present regime.

This action on the part of the leading members of the profession seems a most serious step, but it arises from the fact that there is a growing want of confidence in the ability of the American Medical Association, as an organization, to carry out such an undertaking satisfactorily, and also in the pro-

bable success of any Congress from which the best known scientific men of the country are excluded. The action of the committee in regard to the "new code" men would indeed be ludicrous were it not so serious, and will have the effect of creating sympathy, where before there was only cold and formal respect. The insult offered to such veterans as Bowditch, Fordyce Barker, Draper, Weir, Mundé, Roosa, Knapp, Noyes, Agnew, Jacobi, and others, merely because of a difference of opinion on the code question, will not be tolerated by the good sense of the American medical profession.

We presume matters will probably remain in *statu quo* until the next meeting of the Association in St. Louis, when the whole question will be gone over again. We have faith in the good judgment of the medical profession, and believe that a way will be found out of the confusion and complication into which this matter has drifted.

SUICIDE AND THE MEDICAL PROFESSION IN ILLINOIS.

The oft-repeated remark, that doctors carry on their shoulders more than a full share of the troubles of this life, finds a curious confirmation in the last necrological report of the Illinois State Board of Health. In this report are to be found a few unpretending figures, which, upon a more careful examination than that bestowed by the compiler, are found to be full of meaning and melancholy interest. It is to be hoped that in its next report the Illinois State Board of Health will supplement its figures by as full information as possible regarding some important points touching that part of their report to which we call attention. In this report it is stated that 202 physicians died during the previous year in Illinois. Of this number, six are reported as having died from suicide, five from "overdose of morphia," and two from "overdose of chloral." The reported suicides form about three per cent. of the deaths, a percentage in itself out of all proportion to what obtains amongst other classes of the population. But in addition, seven deaths are reported as having occurred from overdose of morphia and chloral—or over three per cent. of the total deaths. We all know that suicides take place which are never reported. Relatives and friends have numerous motives for suppressing

the facts. This is comparatively easy in the case of invalids or chronic drinkers, especially when sedatives are the weapons of self-destruction resorted to. If this be true as regards the general public, it is much more so as regards medical men, who have every facility for quietly ending their own lives in this way. In the report before us it is not stated that a single physician died from the careless or accidental use of any other poisonous agent. This looks suspicious. Of course medical men, like other mortals, have aches and pains to soothe, and suffer from insomnia, but that is no reason why they should kill themselves in greater numbers than they do their patients. The unvarnished truth is, that the "overdose," as regards the seven cases above mentioned, was simply the invention of friends interested in suppressing the real facts. If we allow two deaths by overdose, which is quite enough, that will make eleven deaths by suicide, instead of six as reported. We cannot be far astray in our estimate of the "overdose" cases in this instance, but when we come to estimate the number of unreported suicides we have entered the field of conjecture, and each one will have his own opinion. No one will deny but such occurred, while many will be apt to conclude that the number is relatively considerable. In the instance before us we shall suppose that three such cases occurred. That will give us fourteen suicides out of 202 deaths, or about seven per cent. Where so many suicides take place there must be a great many in the profession living in a state of utter misery and despair.

In this country we feel thankful to be able to say that no approach to such a condition exists. It is rarely, indeed, that a medical man in Canada dies by the act of his own hand. It would be interesting to know something of the professional standing and habits of these Illinois suicides, for that would afford some clue as to the cause or causes of a condition of things which we hope is exceptional, even as regards the other States of the Union. In this country insanity and drink are regarded as almost the sole causes of suicide in the case of medical men, especially the latter cause. But the native American is temperate, and we are assured that the great majority of American doctors are total abstainers. Drunkenness, therefore, cannot be said to be the most important factor. The most fruitful cause, most probably, is the over-

crowding consequent upon a low standard of general and professional education, or the absence of any standard worthy of the name. In the United States there is one doctor (so called) to every 600 of the population, and Illinois has its full quota, although it has rid itself, through the aid of recent legislation, of a large number of its quacks. The better element, under the new law, is forcing quackery into the background, and as a consequence we may safely assume, the most incompetent find themselves in desperate straits as the people become informed, and as medical men in increasing numbers become better educated, both in a literary and professional sense, so as to take a higher stand—not only professionally, but socially as well—the harder will be the lot of the poorly qualified and the mere charlatan. Perhaps, after all, it is better for society that these should continue the process of self-destruction than go on taking the lives of others.

The profession in Ontario, no less than the people at large, have much to be thankful for. Here no one can publicly practice who has not been found qualified after strict examination. This examination is not made by distinct schools, colleges or authorities, but by appointment of a central and independent authority called the Medical Council. This Council not being the creation, and hence not the creature of any existing authority save the law that constituted it, but a true representation of the profession by fair and open election, and as it is clothed with unlimited power, both as to the preliminary and final fitness of candidates, no one need fear that the standard will ever be too low or that the ranks will ever become much more crowded than they are. When undue overcrowding does take place, the remedy lies in raising the standard, and this power lies in the Council. No country can show brighter, better educated, or more able men in all respects, than the United States of America, yet, owing to imperfect laws, or the absence of all law, no country is so overrun with uneducated and half-educated doctors. Year by year the lot of the mere pretender will become harder and harder. All over the Union restrictive laws are fast replacing "free trade," and everywhere education and professional skill are becoming more and more in demand.

In view of these and other facts which might be mentioned, it is the duty of every one of us to

stand firmly by our privileges, to hold them fast, and to support our representatives in the performance of their duties by a cheerful compliance with the reasonable demands made upon us. The medical men of any State in the Union, would only be too glad to tax themselves ten times the amount asked of us for like privileges and immunities.

CANADA MEDICAL ASSOCIATION.—We would specially direct our reader's attention to the notice of meeting of the Canada Medical Association in our advertising pages. It will be seen that on application to the general secretary, Dr. Stewart of Montreal, all regular members of the profession will be furnished with certificates entitling them to purchase tickets at reduced railway rates. We are pleased to learn that the number of papers already promised is a sufficient guarantee that the Chatham meeting will fully equal its predecessors not only in the number, but also in the high value of its communications. The following are the officers of the Association—President, Dr. Osler of Philadelphia; General Secretary, Dr. James Stewart, Montreal; Treasurer, Dr. Charles Sheard, Toronto; Vice-Presidents, Drs. Bray of Chatham, George Ross of Montreal, Allison of St. John, Fraser of Windsor and Whiteford of Winnipeg. Local Secretaries, Drs. Burt of Paris, Bell of Montreal, Walker of St. John, Almon of Halifax, and Mewburn of Winnipeg.

COCAINE IN HAY-FEVER.—Now that the season for hay-fever is upon us it may not be out of place to state that great benefit has been obtained by a number of observers from the use of cocaine. Among others Dr. Watson of the Westminster Hospital, London, Eng., gives an account in the *Lancet* for July 4th, of the benefit obtained by him from the use of tablets of cocaine. The tablet which contains $\frac{1}{6}$ of a grain of muriate of cocaine is moistened in the mouth and one introduced into each nostril. They adhere without difficulty and give immediate and complete relief. Menthol in alcohol solution has been used by some as a substitute for cocaine, but is not so lasting in its effect.

CHOLERA INOCULATION.—The French commission has returned home disgusted with Dr. Ferràn's inoculation experiments. He positively refused to allow the commission to carry off a single bit of vaccine matter, or to make known his method of

preparing it. His laboratory is poorly equipped, possessing none of the modern appliances, not even an apparatus for regulating the temperature of the stove in which the cholera virus is cultivated for attenuation. He told the commissioners that he could not surrender his secret without a "guarantee." Dr. Ferràn's whole course of action creates the suspicion that he is either a deluded scientist or a humbug, or both.

PERSONAL.—Dr. W. F. Coleman, formerly of St. John, N. B., has finally settled in Chicago. The following resolution was unanimously adopted by the St. John Medical Society, on his removal from St. John.

Resolved, That this society give expression to their high appreciation of Dr. Coleman's scientific attainments, gentlemanly bearing, and untiring professional zeal. While deeply regretting the loss that the society and the profession will sustain by his removal, we confidently predict for him a very large measure of success in his new sphere, believing, as we do, that he possesses all the elements of a first class practitioner.

JAS. H. GRAY, M.D., *President*.

T. M. MUSGROVE, M.D., *Secretary*.

NEW METHOD OF COMPRESSING THE SUBCLAVIAN ARTERY.—Dr. Joseph Bell exhibited before the Med-chirurg-Society, Edin., (*Lancet*, June 13, '85), a case of amputation of the arm for extensive sarcomatous disease of the scapula. The hemorrhage had been controlled by a method recommended to him by Prof. Chiene, in which a curved steel skewer was passed from above downwards behind the subclavian trunks, and brought out in front through the pectoral muscles. Pressure was exerted on the vessels by an elastic tube applied as a figure-of-8 over the anterior part of the region transfixed, a firm pad intervening between the elastic tubing and the patient's skin. The method is similar to that used by the late Prof. Spence in the case of the femoral artery in amputation at the hip-joint. In this case Dr. Bell found the method perfectly satisfactory, as the limb was removed with the loss of but two ounces of blood.

CARBUNCLE.—Dr. Bulkley read a paper before the American Medical Association on this subject. He is strongly in favor of allowing a carbuncle to break naturally. He contends that when a carbun-

cle is incised there is more danger of pus being absorbed. He also opposes poultices. He gives sulphite of calcium, in quarter-grain doses, every two hours; sulphate of magnesia, in laxative doses, three times per day, and tonic doses of sulphate of iron. He also makes an application to the carbuncle of solid extract of ergot, two drachms; oxide of zinc, one drachm; and two ounces of rose-water ointment. The preparation is spread upon lint and applied directly. He thinks this reduces pain and cuts short the disease.

DIAGNOSIS OF GONORRHOEA IN THE FEMALE.—The differential diagnosis between gonorrhœa and simple vaginitis, is usually not an easy task. It has recently been asserted, however, by M. Martineau, of Paris, that the pus of gonorrhœa is acid in reaction, while that of simple vaginitis is alkaline. If this be true, a piece of litmus paper will invariably determine the true nature of the case. The test is easily applied, and if reliable its importance is very great.

AMALGAMATION OF MEDICAL COLLEGES.—The Detroit Medical College and Michigan College of Medicine have been recently consolidated, and will begin their first session's work on the 23rd of September next. See announcement in another column.

CORRECTION.—In the article on Intra-Uterine Medication, by Dr. Temple, in our last issue, an error crept in on page 321, eighth line from top, in first column. It should read *one drachm* instead of one ounce.

APPOINTMENTS.—Dr. Wm. McClure has been appointed Medical Superintendent of the Montreal General Hospital.

The *Canadian Practitioner* expresses the hope that the question of "consultations with Homœopaths" will be discussed by the Canada Medical Association at the meeting in Chatham. We can assure our sanguine contemporary that the Association will do nothing of the kind. Moreover, we do not believe that it can be satisfactorily proven that members of the Association are "in the habit of consulting with homœopaths and other irregular practitioners."

We regret to announce the sudden and unex-

pected death of the wife of Dr. C. W. Covernton, of this city, in the sixty-sixth year of her age. She will be greatly missed by her large family and a numerous circle of friends. The doctor and family have our deepest sympathy in their sad bereavement.

COMPOUND FRACTURES.—Dr. W. P. Verity, of Chicago, read a paper before the American Medical Association on the "Treatment of Compound Fractures by Wiring and Drainage." In all cases of compound comminuted fractures coming under his care, he first cleansed the parts and removed all loose fragments likely to produce irritation. He is, however, opposed to removing any fragments that can be wired, as they are needed for support. All the sharp edges should be removed and the bones firmly wired together, and free drainage provided for by large drainage-tubes. The limb should then be covered with antiseptic dressing and incased in a plaster cast, which should be removed at each dressing. The advantages claimed for his treatment are that there is no shortening, union is more rapid, and no extension is required.

CHRONIC CERVICAL ENDOMETRITIS—Dr. T. Gaillard Thomas speaks highly of the following in this affection :

R	Magnes sulphatis,	℥ ii ;
	Ferri sulphatis,	gr. xvi ;
	Acid. Sulph. dil.,	℥ i ;
	Aquæ,	O i ;

M.

Sig. Two tablespoonfuls in a tumbler of ice-water daily on risidg.

Dr. RYERSON, of Toronto, acting surgeon of the Royal Grenadiers, who has been away with the North-West expedition, has returned and resumed practice. The Dr. was through the Fish Creek and Batoche engagements, and the subsequent operations of Gen. Middleton's column.

We beg leave to call attention to the elegant inset of Hazen Morse in this and last issue of the LANCET. His preparations have been before the profession for several years, and are constantly growing in professional favor.

Mr. John Eric Erichsen, author of the work on Surgery which bears his name, and Mr. Ernest Hart, editor of the *Brit. Med. Journal*, will be

candidates for Parliamentary honors at the next election.

The McIntosh Galvanic and Faradic Co. have been awarded the Gold Medal at the New Orleans Exhibition.

Books and Pamphlets.

CHOLERA : Its origin, history, causation, symptoms, lesions, prevention, and treatment. By Alfred Stillé, M.D., LL.D., etc., etc. Philadelphia : Lea Brothers & Co.

Professor Stillé has contrived to compress into a little octavo of 162 pages all that he has felt called upon to say in relation to the absorbing subject of Asiatic cholera. He is a very decided contagionist. This doctrine seems to be as much favored now, as fifty years ago it was centemned. The logic of stern facts has been too powerful for the fancies of optimistic doctrinaires, and medical men of the present day have awakened to the old fact that two and two make four, and that no quantity of nonsense, added to an unknown quantity of baseless assumption, will be the equivalent of ever so fractional a part of truth. Dr. Stillé may be said to have been on the best terms of authoristic concordance with the writers of the May volume of W. Wood & Co. ; in fact they so reciprocally borrow and lend that they must all be on terms of close amity ; but it is not always easy to say which party is the borrower, and which the lender. We must however be so just as to instance one exception to this mutuality. Dr. Stillé deals rather sternly with Dr. Sternberg's adopted comma bacillus. He says : "It seems no longer possible to accept the bacillar doctrine of the production of cholera." In support of this negation he quotes Koch, on the mortality of the comma bacilli, where he has been so frank as to tell us, that, "even after three hours drying every vestige of life has disappeared." What! so fearfully killing, and yet so easily killed.

A PRACTICAL TREATISE ON URINARY AND RENAL DISEASES, INCLUDING URINARY DEPOSITS. Illustrated by Numerous Cases and Engravings. By William Roberts, M.D., F.R.S., F.R.C.P. (Lond.), Professor of Medicine at the Victoria University, etc., assisted by Robert Maguire, M.D., Lond., F.R.C.P., etc. Fourth Edition. Philadelphia : Lea Bros. & Co. ; Toronto : Van-
nevar & Co. Price, \$3.50.

The work before us is one we can recommend to those in need of a good reliable work on the

above named subject. It is already well known to the profession through former editions, and has been highly appreciated. The work is divided into three parts. The first part takes up the physical and chemical properties of the urine, in health and disease, and the methods of examining the same chemically and microscopically. The second part treats of "Urinary diseases" viz., diabetes, gravel, calculus and chylous urine, in which the author not only gives the results of his own experience, but also all recent accepted facts in connection with these diseases. The third and most valuable part is devoted to the consideration of organic diseases of the kidneys, acute and chronic. The entire work is of a clinical and practical character, and will be found a reliable guide in the treatment of these diseases.

BODILY DEFORMITIES AND THEIR TREATMENT, A HANDBOOK OF PRACTICAL ORTHOPÆDICS, by H. A. Reeves, F.R.C.S. Eng., London Royal Orthopædic Hospital, with 228 illustrations. Philadelphia: P. Blakiston Son & Co. Toronto: Willing & Co., \$2.25.

The author deals with his subject in a most thorough and comprehensive manner, and gives us the full benefit of his large and extended experience in the treatment of this class of affections. Some subjects quite new to British surgery will be found in this book, for example, "Spring Finger, Paralytic dislocations, new operation for Nasal Depression etc. The work has been written from the standpoint of a general surgeon interested in this special domain, and the author endeavors to show that success in the treatment of orthopædic cases depends very largely on extensive experience, personal supervision, and watchful care.

HAND-BOOK ON THE DIAGNOSIS AND TREATMENT OF SKIN DISEASES, by Arthur Van Harlingen, M.D., Prof. of Skin Diseases; Philadelphia Polyclinic etc. Philadelphia: P. Blakiston Son & Co. Toronto: Willing & Co. Price \$1.75.

The above will be found a useful little work on skin diseases, adapted to the wants of the general practitioner. It is chiefly devoted to the clinical features, diagnosis and treatment of the various diseases. The diseases are taken up in alphabetical order, in order to facilitate ready reference.

THE OLEATES, THEIR NATURE AND ACTION, by J. V. Shoemaker, A.M., M.D., Prof. of Dermatology, Jefferson Medical College. Philadelphia: F. A. Davis, att'y. Toronto: Willing & Co.

SURGICAL PATHOLOGY, by A. J. Pepper, F.R.C.S., St. Mary's Hospital, London.

SURGICAL DIAGNOSIS, by A. P. Gould, F.R.C.S., Middlesex Hospital, London.

THE DISSECTOR'S MANUAL, by W. B. Clark and C. B. Lockwood, F.R.C.S., St. Bartholomew's Hospital.

INTESTINAL OBSTRUCTION AND TREATMENT, by Fred. Treves, F.R.C.S., London Hospital.

The above together with a work on *Materia Medica*, by Mitchell Bruce, constitute a series of clinical manuals for practitioners and students of medicine, published by Lea Bros. & Co., Philadelphia. They are edited by well known authorities in England, and issued in pocket size, 12 mo. volumes of 300 to 500 pages, well illustrated, and at a low price. The works are not pretentious, but will serve a useful purpose as books of reference on the subjects upon which they treat.

A TREATISE ON HEMORRHOIDAL DISEASE, ITS HISTORY, NATURE, CAUSES, DIAGNOSIS AND TREATMENT, by Wm. Bodenhamer, A.M., M.D. New York: Wm. Wood & Co. Toronto: Hart & Co.

We believe this is the only work on the subject of hemorrhoids published; at all events on this side of the Atlantic. This treatise will be found to be a complete encyclopædia on the subject, and will repay a careful perusal. As a work of reference it cannot be excelled.

HAY FEVER, AND ITS SUCCESSFUL TREATMENT BY SUPERFICIAL ORGANIC ALTERATION OF THE NASAL MUCOUS MEMBRANE. By Charles E. Sajous, M.D. Illustrated by 13 Wood Engravings. Philadelphia: F. A. Davis, 1217 Filbert Street.

Births, Marriages and Deaths.

On the 11th ult., Dr. J. W. Walden, of Waterloo, aged 47.

On the 20th ult., Dr. Joseph Mothersill, of Stratford, aged 65 years.

On the 28th ult., H. L. Vercoe, M.D., of Toronto, aged 45 years.

On the 20th ult., Fanny Creighton, beloved wife of Dr. L. F. Millar, of Woodhill, aged 28 years.