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# MARITIME MEDICAL NEWS

A MONTHLY JOURNAL DEVOTED TO  
MEDICINE & SURGERY

VOL. XVIII HALIFAX, NOVA SCOTIA, MARCH, 1906.

No. 3

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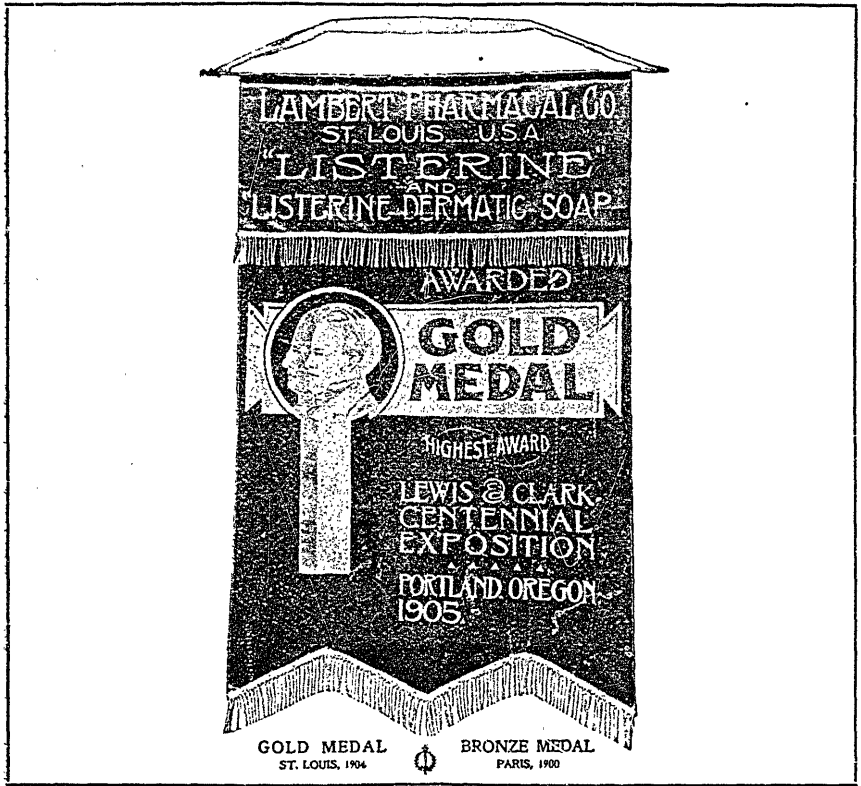
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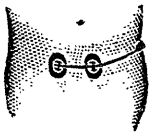
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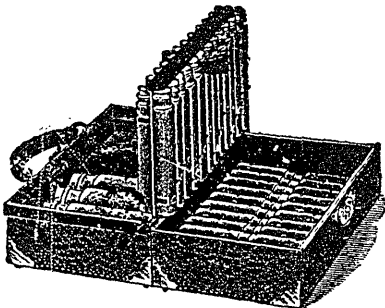
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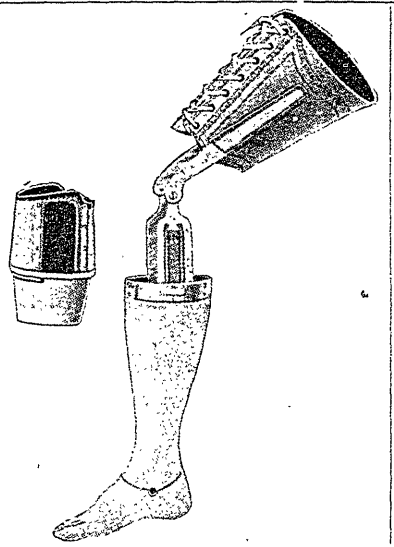
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**Disinfection After Tuberculosis.** Spengler, (Zeit fur Hygien), expressed

surprise that formaldehyde should be recommended as a proper disinfectant of tuberculous material. He points out that it is a recognized procedure in the laboratories to treat tubercular sputum with formaldehyde in order to get pure cultures of the tubercle bacilli. Like other acid-fast bacilli the tubercle bacillus resists the action of the formaldehyde while other bacteria in the sputum are killed by it. He infers that tubercle bacilli are not killed by formaldehyde disinfection, as commonly practiced.



**The Cure of Cancer.** In the *British Medical Journal* for January

20th, 1905, J. Beard, D. Sc., of Edinburgh, has a preliminary note on the action of trypsin upon the living cells of malignant growths. Injections of trypsin were made into two mice inoculated with adenocarcinoma; other mice treated but not inoculated, and inoculated but not treated, served as controls. The objects were: (1) to test the action of trypsin upon the living cells of a carcinoma; (2) to prove that cancer is an irresponsible trophoblast;

(3) to determine the length of treatment and number of injections necessary to destroy the tumour. The results were quite in accord with Dr. Beard's expectations, the cancerous growth in each case treated showing atrophy and degeneration. It is pointed out that in addition to confirmation of the conclusion that trypsin destroys cancer with ease and without danger to the individual, those experiments go far to prove that cancer is neither germinal nor somatic, for trypsin, the architect of the soma, does not in life destroy the soma or sexual individual or its sexual products, whilst its action is direct and utterly ruinous upon trophoblast or asexual generation.



**Concerning Mice and Pneumonia** E. Palier writing in the *Medical Record*, (Jan. 27, 1896) says that his

experiments lead him to believe that the microbe causing pneumonia is very polymorphous. A similar microbe was found in the mouths of all healthy individuals examined, and the microbes which were found in healthy individuals or in those suffering from pneumonia were not virulent enough to cause a disease when injected into

animals, like the rat, which are not very susceptible to them. On the other hand, these microbes acquired a great virulence when they passed through a susceptible animal like the house mouse. Owing to these reasons the writer holds that the most suitable name for the bacteria in question would be diplo-lanceo-bacilli-cocci, or for the sake of brevity, d. l. b. c., instead of pneumococci. He then reviews the various theories that have been suggested to explain the acquisition of virulence by these organisms, and concludes that it is owing to passage through the bodies of house mice. He has discovered that d. l. b. c. in the bodies of mice that have been found dead and believes that the virulent germs from the feces or decomposing bodies of these animals serve as the source of the disease in man. As mice are most common in houses during the months of December, January, February, and March, the seasonal distribution of pneumonia is also accounted for by this theory.



**Age Incidence of Drunkenness** The age at which drunkenness is established was investigated by Dr. C. L. Dana, and his conclusions, according to *American Medicine* being based upon some thousands of cases, are not only of great scientific value, but have a practical application as well. Briefly, it might be said that inebriety usually begins before 20 years of age, and

if a man has not indulged to excess before he is 25, he is not likely to do so later. There are so few who begin excessive drinking between 30 and 40 years of age, that one who has reached the age of 30 without excess is almost surely safe. Dana stated that no cases arise after 40 years of age. There is a popular idea, no doubt, that numerous cases do arise after 40 but it is not at all unlikely that investigation into their early histories will bring to light a long series of occasional overindulgences with some symptoms dating back to childhood. Dana evidently refers to real inebriety in youth, and not to the lapses which so many young men wrongly assume to be a part of their education, nor does he assert that all youthful inebriates are incurable, but merely that old cases began at an early age. Wild oats must be reaped in sorrow and pain, but they do not necessarily choke the whole crop of good seed. These statistics are of such profound significance that it is quite remarkable they have elicited so little comment and have not been made the basis of practical measures for the prevention of drunkenness.



**Treatment of Nephritis.** Tyson of Philadelphia writes (*New York Medical Journal*, February 3rd, 1906) on the Medical Management of Nephritis. In acute nephritis the first essential condition is rest in bed. The diet should be milk

preferably diluted. Purgation by salines or, in some cases, calomel is indicated. Wet cups or hot fomentations to the kidney region may be used. In addition, to combat uræmia or dropsy, sweating by the vapor or hot air bath, or, in urgent cases, by pilocarpine, must be encouraged. Of diuretics, the citrate of potash in ten or fifteen grain doses every two hours, and digitalis are recommended. In desperate cases injections of hot water thrown high up into the bowel, and subcutaneous or intravenous injections of normal salt solution, always to be preceded by venesection, are to be employed. The use of alcohol in acute nephritis when needed for its usual purposes, is not contra-indicated. In chronic nephritis rest and a milk diet can be used for a short time only. For the rich, residence in a warm climate is available. Temperance in eating and drinking is to be insisted on. Red meat is not practically more harmful than white: the amount of either should be small. An egg a day may be allowed in most cases. Alcohol, coffee, tea, and tobacco should be omitted or in certain cases allowed in small quantity. Condiments are forbidden. The heart may be strengthened by the Schott movements and Nanheim baths. Water should be limited to one and a quarter liters. Drugs, except to meet certain symptoms, are to be avoided. Basham's mixture has

not proved of value. Iron may be used for anæmia and potassium or sodium iodide as a vasodilator. Opium often develops uræmia, but is less dangerous in parenchymatous nephritis than in contracted kidney. Albuminuric retinitis may be treated by the biniodide or bichloride of mercury combined with potassium iodide.

**Medical Winners of Victoria Cross.** It is now fifty years since the Victoria Cross was instituted. Made from cannon captured at Sebastopol, this plainest of medals is awarded only for signal service coupled with conspicuous bravery in actual warfare, and is the most coveted of all British military decorations. During those fifty years, although there have been well on to fifty campaigns fought, only 522 crosses have been awarded. In twenty-five instances it has been awarded to medical officers. That is to say, nearly five per cent. of the Victoria Crosses have come to members of our profession. Inasmuch as all ranks are equally eligible for the decoration, it is easily seen that the medical organization of the army has won very much more than its proportion of these medals. This is a striking illustration of the fact that no other branch of the service occupies a more hazardous position in an engagement than the medical corps which is contrary to the wrong opinion usually entertained by the public.



**Losses in the Japanese Medical Staff.** During the recent war, seventy medical officers of the Japanese army and navy lost their lives, twenty-nine having been killed in action, while forty-one died of disease. Of these fifty-six, of whom nineteen were killed in battle, belonged to the army medical corps. Ten out of the fourteen naval surgeons who lost their lives were killed in action.

**Physicians in British Commons.** Among those who were successful in the late General Election in Great Britain were the following medical men: M. R. J. Price, representing East Norfolk; Dr. V. H. Rutherford, Brentford Division of Middlesex; Dr. Rolland Rainey, Kilmarnock Burghs, and Dr. Pollard, Eccles Division of Lancashire. Unsuccessful candidates included Sir Michael Foster, Surgeon-General Evatt, Dr. C. F. Hutchison and Dr. J. Court.

**Ministerial Roll of Honour.** An advertisement of Psychine now running in the *Halifax Herald* includes testimonials of the efficacy of that nostrum from Rev. James Odery, formerly of Broadway Tabernacle, Toronto; Rev. Wm. H. Stevens, Paisley, Ont.; Rev. R. M. Browne, Amherst Head, N. S.; Rev. J. J. Rice, 51 Walker Ave., Toronto; Rev. Charles Sterling, Bath, N. B., and Rev. J. S. I. Wilson, Markdale, Ont. The advertisement states: "Where

sickness is there the minister of the gospel is to be found." Could these ministers limit their ministrations to the spiritual needs of the people and not experiment upon them with medicines of unknown composition, their field for usefulness would not be restricted and they would run less risk of making victims of alcoholism amongst their charges.

**Naval Support of Quackery.** Embellished by an illustration depicting a warship ploughing through the billows, and a picture of Rear-Admiral Hiehorn, a recent advertisement of Peruna (alcohol 28.5 per cent.) includes testimonials from Philip Hiehorn, Rear-Admiral United States Navy; Commodore Somerville Nicholson, Ex-Lieut. U. S. Navy; James M. Morgan, Admiral James A. Greer, Rear-Admiral J. A. Howell, and Col. U. S. Marine Corps C. J. Porter. Doubtless the intention is that these should fall into the hands of an enemy, in the hope that habits of intemperance may be induced in the more gullible of them.

**The English Medical Curriculum.** The Committee of Management of the Conjoint Board in England have recently presented a report to the Royal College of Physicians of London, respecting the duration of the medical curriculum. This is now set at five years, and the suggestion has been

made that it should be lengthened by one year. Investigation by the Committee showed that of the 400 students who obtained the diplomas of the Conjoint Board during the last two years, only 8.5 per cent. passed the final examination after five years study. 28.5 per cent. required six years, while 71.5 per cent. took a longer period, no less than 34.5 per cent. taking over seven years. Inasmuch as these statistics are derived from a period when the regulations adopted by the Royal College in 1904 had not come fully into operation, it may be expected that a still longer time will be required in the near future. Commenting upon this the *British Medical Journal* says: "This is a most serious outlook for the medical schools and for parents. It certainly suggests that there is something radically wrong in the present system, which is evidently not in harmony with the capacity of the students and the requirements of medical education."

**Loving Cup for Dr. Hurd.** On January 26th, a committee of the American Medico-Psychological Association waited upon Dr. Henry N. Hurd, the well known Superintendent of the Johns Hopkins Hospital, and presented him with a loving cup, in recognition of the valuable services he has rendered to the Association and the cause of psychiatry.

**Sale of Patent Medicines.** An Ottawa despatch to the daily papers, dated February 26, reads as follows:

In connection with the proposal to pass legislation to regulate the manufacture and sale of patent and proprietary medicines, a point has been raised whether power to legislate on this question rests with the Dominion or the provinces. A high official of the government is emphatically of opinion that the matter is not one for the federal authorities to deal with. British Columbia has recognized this and it is already considering a bill dealing with this subject. It refers particularly to alcoholic strength in proprietary medicines. Respecting the sale of such compounds the Dominion has no jurisdiction. Under the drugs act a patent medicine is not a drug. The federal authorities regulate the manufacture of alcohol and collect an inland revenue tax of \$1.90 per gallon, but, as determined by the McCarthy act, it has nothing whatever to do with the sale of alcoholic liquor. It is therefore, within the absolute competency of the provincial legislatures to deal with the subject of proprietary medicines containing alcohol.



### The Patent Medicine Question.

AT a recent meeting of the Halifax Branch of the British Medical Association attention was called to the campaign now being conducted by some of the United States newspapers against the unrestricted manufacture and sale of patent or proprietary medicines, and, on the motion of Dr. Goodwin, a resolution was adopted, and transmitted to the *Ladies' Home Journal* and *Collier's* expressing appreciation

of the stand taken by these journals and their editors.

The use of proprietary remedies is probably common to all countries, and will perhaps continue, in some form, while the human race, sceptical of facts and creations of fancies, endures. But in this line of business one country reigns supreme. Great as she claims to be in most fields of human industry, the Great Republic has no competitor here. In medicine, patent medicine, she is first—the other nations nowhere. Whether we regard her Gargantuan appetite for drugs, the colossal scale on which they are manufactured, or the depraved ingenuity with which they are advertised, we admit that we are in the presence of one of the wonders of the world, and of a Quack bigger and larger and more quackish than any that has been.

Geographical propinquity has its inevitable results, and the favorite nostrums of the United States have their place on the Canadian medicine shelf and their praises are sung, at so much per line, in Canadian papers.

How much does Canada pay for quack medicines? How much do we pay in Nova Scotia for instance? It should not be difficult to make an estimate. The invoices of the importers would give a fair basis for calculation, but in addition we should have to reckon the hundreds and thousands of dollars sent out of this country for patent medicines imported through the custom house by individuals for their own use.

The patent medicine bill of the United States amounts to about one hundred million dollars per annum, nearly a dollar and a half for every man, woman and child in the country; very nearly as much as the whole estimate for the maintenance of the United States navy.

The criticism of this stupendous folly is not new. We have all read and heard tales of the fortunes made in this business, we have all seen analyses of secret nostrums, and we are familiar with exposures of the fraud and infamy connected with certain lines of the business. Then why does it go on, and flourish? Is it apathy? Yes, to some extent it is. How many of us have protested against the presence of patent medicines on the shelves of reputable druggists, the druggists who deal in the recognized articles of the pharmacopœia, and who put up our prescriptions? And shall we blame them? Let a druggist set up a purely dispensing establishment in Halifax or St. John to-day, to say nothing of the smaller towns; let him resolve to sell no medicine except as the prescription of a medical man, to keep no preparation the composition of which is a trade secret, and how long would he be in business? No. The people want the quack medicine, and in the twentieth century the people insist on having what they want.

And it is only when the public gets its eyes opened to the stupid folly of swallowing both the lying advertisements and the useless or

harmful mixtures of the quack that we can hope for any improvement.

There are hopeful signs that thoughtful and influential people are awaking to the necessity of putting a stop to this baneful traffic. The articles in the *Ladies' Home Journal*, to which we have referred, have had a distinct effect. Only a short time ago we received from a thoughtful and public-spirited clergyman, a copy of a bill which the editor of the *Ladies' Home Journal* has suggested should be introduced into the state legislatures, and which our correspondent hopes may be considered by the Nova Scotian Government. He says, "Nova Scotia, morally, should be strong, her local government is powerful. . . . She could set an example to the Dominion in this matter." This proposed bill was published in the January number of the *Ladies' Home Journal*. Its object is to compel the publication of all the ingredients of any "nostrum" and also that when certain proportions of alcohol, morphia, cocain and certain other drugs are present, the word *poison* is to be legibly printed on the label.

We believe that much of the present activity among public-spirited people in the United States, in discussing means for regulating the traffic in proprietary medicines, is due to the knowledge that many of the newer preparations, such as Peruna, are merely disguised forms of alcohol. The inconsistency of

those who call for prohibition of the sale of beer and whiskey and yet use and recommend the use of proprietary medicines containing from ten to twenty-five per cent. of alcohol, is as ludicrous as it is painful. Here is a dear lady who sets the pace in temperance work, earnest, active and sincere. And just as sincere in recommending stimulants—alcoholic stimulants—only purchased at the druggists and not in the bar-room. "Where is my wandering boy to-night?" "Another bottle of Peruna please". Can you not see the derisive smile of Mephistopheles? And here is the pulpit orator whose impassioned rhetoric and righteous indignation in the annual temperance sermon has led to the closing of every bar-room in the town, and who testifies in his religious weekly paper, that the dreadful exhaustion from which he had suffered etc., etc., has been cured, "under God's blessing, by that marvellous discovery Paine's Celery Compound."

It all seems very strange to us doctors. Can these people be ignorant of the character of their blessed tipples? Perhaps they are. We learn their composition from our professional journals. In how many ordinary public newspapers do we find any crusade against the drug habit?

We recommend our readers to get *Collier's Weekly* for Nov. 4, 1905. There in frank, outspoken, fearless fashion we find a reason for a "Conspiracy of Silence" on

the part of this press. It is the old story—love of money. The newspapers of the United States earn forty million dollars per annum by advertising quack medicines. And their contract with their advertisers contains a clause which muzzles them from publishing anything detrimental to the quack's business.

It is nothing unusual to find that one-tenth or more of the space of a newspaper is occupied with advertisements of proprietary medicines. Some of these may be harmless, some may be useful tonics, many are unmitigated frauds and some are garbage: obscene incentives to vicious conduct.

As medical men we know too well the inertia of the public to any appeals from the stand of public health. Indeed we are pessimistic enough to think that Demos rather prides himself on the way he sits on the doctor. Witness the hopelessness of any action taken against quacks by our Medical Board. A jury invariably find for the accused. Miners or machinists may form trade unions, and shut out "scabs," but doctors

must tolerate every form of quackery. This attitude of the public is not peculiar to the Maritime Provinces. The public health authorities of many of the States in the Union have for many years tried to secure legislation to compel the makers of patent medicines to label their products with their exact ingredients, and all in vain, until last year. Then in North Dakota, the legislature passed and the Governor signed a bill "requiring that patent medicine bottles shall have printed on their labels the percentage of alcohol or of morphine or various other poisons which the medicine contains."

The next best thing to leading the way in a good cause is to follow the leader close, and in this good cause, this crusade for public health, we in these provinces should not be ashamed to acknowledge the help of the free press of the United States, such journals as the *Ladies' Home Journal*, and the outspoken *Collier's*.

And as we write these lines we learn that our "little Benjamin," the smallest province—the Island, proposes to introduce legislation such as we have described.



# CÆSAREAN SECTION WITH REPORT OF NINE CASES.

By H. L. REDDY, M. D., L. R. C. P., Lond.

*Physician-Accoucheur, Women's Hospital, Montreal.*

(Read before Canadian Medical Association, Halifax, Aug. 1905.)

IN bringing the subject of Cæsarean Section before you I consider it is a question which is of far greater importance to the profession to-day than may appear if regarded casually. The number of women and children lost who might have been saved will never be known. If we consider the point from that of statistics, it has been stated, and I see from my experience, although not in my own practice, little to discredit it, that there is a loss in cities of 10 per cent. of women confined. The average by Cæsarean section in the hands of good operators varies from 5 to 7 per cent. This being the case the operation no longer deserves the discredit it rightly obtained in the days before asepsis when the death rate was 50 per cent.

What shall constitute a necessity for the operation is naturally the first question, and it is here the greatest differences exist. In London, Eng., a committee exists belonging to the Obstetrical Society, to examine cases and decide before operation whether it is required or not. This may have been valuable in the days of 50 per cent. death rate, but it seems to me that such is not now required. While

Cæsarean section is a grave operation I do not consider it any more severe, or as much so, as many of the operations of daily occurrence by surgeons in every great hospital, although it may be a little more spectacular. The after-treatment I have found in several of the cases to be vastly more difficult than the mere operation.

Causes for the operation may be divided into absolute and relative. Under absolute conditions calling for this operation (mother and child being in good condition) are tumours which cannot be removed and which prevent the descent of the child, and contracted or deformed pelves. Here we find the greatest difference exists between authors, and the reason of the difference is not far to seek in my opinion. Not every author is attached actively to an obstetrical hospital of any size, and there is a very broad line of distinction between the practical and theoretical sides of obstetrics. Hence it is easy to discuss in a text-book what ought to happen between a foetal skull of a certain size and pelvis of another size. We find for example a professor of obstetrics of a large Southern University who has had

some thousands of cases and has never needed to perform the operation in his own practice, and another prominent physician of Philadelphia, who has also had a large number and has not needed to perform. I do not think in either case it is difficult to explain the reason and this shows the care needed in accepting the ipse dixit of any one man. In the case of the first mentioned physician, his patients are chiefly negroes who have roomy pelves and generally small children. The same probably holds good of the other physician in Philadelphia, except that his patients are white.

Dr. Jardine of the Glasgow Maternity Hospital reports, out of 703 cases in 1903, having had to deal with 98 cases of contracted pelvis or about one in seven. Out of these 98, there were 8 cases of induction of labour, 4 of symphysiotomy and 10 Caesarean sections.

When in New York I was told by the house surgeon of one of the large obstetrical hospitals that the children averaged  $6\frac{1}{2}$  lbs., which is very much below the average, e. g., in Montreal by  $1\frac{1}{4}$  to 3 lbs. The head would not doubtless have the whole difference of weight, but an increase of weight of from  $\frac{1}{8}$  to  $\frac{1}{2}$  would certainly tend to make an operation needed in some cases, which in the case of smaller children would be difficult forceps or version. On the other hand, the actual dimensions of the conjugata vera given were from 7 c. m. or  $2\frac{3}{4}$  inches to 9 c. m.

or  $3\frac{1}{2}$  inches, requiring operation by the average text book. Dr. Williams, who is very practical, says that after one hour of strong second stage pains if the head does not engage, section should be considered, if mother and child are in good condition and aseptic precautions and a good operator are possible; that it is less likely to damage mother and child than severe forceps or version. With Dr. Williams I agree most thoroughly not to let the dimensions of the pelvis, be it 7 or 10 c. m., decide, but if the child's head does not enter the pelvis to be prepared and if necessary, not to hesitate to operate. Dr. Jardine says the great point to decide the matter is the size of the head relative to the pelvis. Drs. Hart, Jardine and Ballantyne give  $3\frac{1}{2}$  inches as the operative conjugata vera. Outside of the indications at the superior strait calling for it, other pelvic deformations may demand it; also cancer of cervix uteri.

As to relative causes, I consider my third case a relative cause, which showed a rapidly failing diseased heart with congestion of the lungs, a long cervix, and no dilatation. Those who saw that operation were convinced of the value of section in such cases. All the symptoms improved at once on removal of the child, and the operation was finished in forty-five minutes, certainly less time than the ordinary accouchement forcé could have been done in. Case

No. 4. was also one due to a relative cause, an hypertrophic elongation of the cervix to the extent of 5 inches. By the ordinary method the tearing, or cutting and tearing, would certainly have opened into the peritoneum. Case No. 5. was another due to a relative cause; excessive varicosity extending into vagina, hard cicatricial os and long cervix. The damage by ordinary methods would have been probably excessive, not to speak of the danger of hæmorrhage. Placenta prævia centralis, with long cervix and undilated os, would be better treated by section in many cases than by the ordinary method. As to the hæmorrhage post partum, I would not hesitate to pack the uterus with gauze, as I do not consider there is the slightest danger of rupture of the uterus owing to the buried silk sutures in the uterine wall. Partial or lateral placenta prævia are better treated, I think, by the old method. Eclampsia I do not consider an indication as a rule. If convulsions have occurred the os is usually found open, and as a rule labour is exceedingly rapid and a little help is generally all that is needed. The post operative pain and distress is, I think, likely to keep up or cause fresh convulsions. Sir Haliday Croom mentions two cases where he did section for convulsions, but in these cases it was impossible to dilate the os and practically it was the only way to save the children, who were alive,

and give the mothers a chance. In such cases section would naturally be required as well as in cases where absolute conditions complicate the case. The Roman Catholic church requires the child to be born alive if possible, and such is often possible by section, and not otherwise in many cases.

If section is to be performed, what operation is to be preferred? There are three chiefly to be considered.

1. Removal of the uterus by Porro's operation, or supravaginal hysterectomy.

2. Retention of the uterus and tying and cutting or resecting tubes.

3. Retention of the uterus without sterilization.

If statistics are to decide the matter the Porro seems to be the safest. Leopold gives 5.8 per cent. for section and 3.7 per cent. for Porro; Braun Von Fernwald 11.8 per cent. for section and 5 per cent. for Porro. In 268 cases reported by Leopold, Braun, Schauta and Kerr, the conservative section gives 10 per cent. mortality, the Porro 8 per cent. One modern author claims that under proper conditions simple section should have no percentage of deaths. I, for one, fail to see the *raison d'être* of doing a Porro unless the patient is infected, and to be sure of this is not quite so easy as some authors would have us believe, especially when called on to operate at a moment's notice on a patient long in labour and to differentiate



between the effects on the patient of long labour and a mild infection. I do not consider we should say without good proof that the patient is infected, and hence do such a serious operation as a Porro. Personally I would tie off the tubes if I had any doubt of infection of the uterus, and treat the uterus in the same manner as any other case of infection, such as pack twice daily with dry sublimate gauze, etc. Other conditions, however, may call for a Porro, such as cancer of the cervix or myomatous tumours. Haemorrhage is not a cause for a Porro, because it can be controlled by packing the uterus properly. Tumours outside the uterus, as of the ovaries, do not constitute a reason.

The second operation, or tying the tubes in two places and cutting between the ligatures, is a good operation when sterilization is required, and can generally be depended upon and leaves the door open, as one author has said, if need arises to join the Fallopian tubes together again and allow pregnancy to occur.

The third operation, or retention of the uterus without sterilization is the one demanded by the Roman Catholic church. It must be considered by the patient herself whether she will submit to it or not. It is our duty to explain to her that a serious condition exists, otherwise the operation would not be performed, and if it be a contracted pelvis it will exist in

every succeeding pregnancy, and we should warn the patient as to the dangers and allow the burden to be carried by her. For myself I prefer the second method, either tying and cutting or sewing the peritoneum down over the cut end of the tube, this last being a certain method of sterilization.

Who shall operate? In cases of necessity any well educated modern man should. By a modern man I would understand any physician who understands asepsis and what the operation calls for. Of course the ideal place for such operations is a well appointed hospital, where asepsis can be obtained; but it has been done successfully in small country places with only a confrere to give the anæsthetic and no trained assistants.

When should you operate? If there is no doubt in your mind from careful measurement and examination of the patient that it is impossible for any other method to be successful, wait until labour sets in, although this is not absolutely necessary. If there is doubt in your mind, I think that the advice of Williams is most excellent; wait an hour after strong second stage pains, and if the head does not engage at the superior strait, operate, providing mother and child are in good condition. If possible, as a rule, operate before your patient is fatigued with a useless labour, as evidenced by pulse and temperature rising. Most operators lay great stress on

rapidity of operation, as it has been found that the best results are obtained where least time is spent.

The operation that I have performed was as follows:—The usual preparatory treatment for laparotomy was followed in each case when there was time for it, and in all cases the abdomen was made as aseptic as possible. The anæsthetic used in each case was either chloroform, or alcohol, chloroform and ether. The patient being anæsthetized an incision was made in the middle line  $2\frac{1}{2}$  inches above the umbilicus and extending to  $3\frac{1}{2}$  inches below it. In all cases bleeding was slight. In the first few cases I used a 10 per cent. solution of gelatine to stop the hæmorrhage, but found it was unnecessary. The peritoneum was opened. In those cases where it was possible to bring out the uterus, the left flank was well depressed and pressure applied on the right side of the fundus aided by one hand over the fundus. The uterus was brought outside the abdominal cavity. A rubber tube was put round the uterus and drawn well down to the cervix to act as an Esmarch when required. The uterus was now covered with hot towels and the intestines were kept in situ by hot towels. Towels were also packed round the uterus to keep any discharge from entering the abdominal cavity. In those cases in which we did not take out the uterus it was on account of its size and the large opening that

would have been required; and in preference we packed hot towels in between the uterus and the abdominal walls and then opened. The uterus was opened from a point between the level of the Fallopian tubes as far down as the contractile ring, or six inches. The wall of the uterus was cut through rapidly, and the placenta in eight of the cases also, with, in each case, very much less loss of blood than would be lost in an ordinary confinement. The part presenting at the opening was seized and the child delivered rapidly. The cord was clamped with Pean forceps and cut. Aseptic ergot was given in the buttock hypodermically and the Esmarch relaxed. At once the uterus contracted, and indeed in all cases I think it does not matter whether the woman is in labour at the time of the operation or not, contraction will occur. Little difficulty was experienced in removing placenta and membranes, except in one case. It was then ascertained that the os and cervix were patent for drainage. The uterine wall was closed by interrupted sutures a quarter of an inch apart, of No. 4 braided silk. A Lembert suture was used to bring the peritoneum together, and I found that by the time I had put it in, the length of the incision in the uterus had contracted so much that it was necessary to put in another to keep the peritoneal surfaces together. The peritoneum

was then dried out and filled with saline solution. The walls were closed by three layers of sutures, peritoneal by continuous catgut, musculo-aponeurotic by silk worm or No. 4 braided silk, and the skin by interrupted sutures of silk worm or horse hair. A dry dressing completed the operation. In those cases where it was desired to render the patient sterile the Fallopian tubes were tied in two places and cut between.

Case No 1, (2,792). Mrs. L., 2-para; æt 29; Scotch-Canadian; admitted December 22nd., 1902, into Women's Hospital.

Personal History. Up to twelve months ago presented nothing of note. Menstruation began at 11. In November, 1901, she was confined by me of a seven months fœtus, by version, with a very great deal of difficulty—the child only weighing  $4\frac{1}{2}$  pounds. The conjugate of the brim was found then to be diminished. The woman although large, and well formed in every other way, had only a diameter at most of 9 c. m. or  $3\frac{1}{2}$  inches.

Family History. Two sisters died of phthisis. Nothing else of note.

Present Condition. Circulatory and other systems normal. Patient well nourished; 134 pounds; good amount of subcutaneous fat. Last menstrual period, March 26th., 1902.; computed time of gestation 274 days. Patient understanding condition from last confinement

desires a living child and to be made sterile. Cæsarean section was proposed and accepted by her. At 3. p. m., December 25th., labour began. At 7. 45 p. m. the pains were coming on every ten minutes. It was decided to perform the operation as soon as possible, which was done as above described, the whole operation taking about one hour and thirty minutes. The child weighed 6 pounds, 8 ounces. The skin sutures were removed on the 21st day. There was perfect union the whole length of the incision. When the patient was coming to the hospital she slipped and fell on her left knee and as a result after the operation an effusion appeared in the joint which gave us the only trouble we had. This was not well when she left the hospital. I saw her Christmas week, 1904, and her baby and herself were and had been in the best of health.

Case No 2, (2,849). Mrs. H., 1-para, æt 24; admitted to hospital, 1904, in labour.

Personal History. Last menstruation ended August 7th., 1902. Had been deserted by her husband under cruel conditions which had an exceedingly bad effect on her both mentally and bodily.

Family History. Father and brother died from accidents; mother and two sisters from childbirth—causes cannot be ascertained.

Present Condition. Respiratory, circulatory and genito-urinary systems normal.

General System. Height 4 feet 6 inches, weight 89 lbs. Condition emaciated. Presentation above brim; left occipito-anterior position. Heart 156. Child calculated to be about 5 to  $5\frac{1}{2}$  lbs. Mensuration shows a justo-minor pelvis of male type. Internal conjugate calculated to be about 7 cm. or  $2\frac{3}{4}$  inches. Vagina unusually small. The ischiatic spines seemed to curl inward, and three fingers introduced into the vagina with difficulty seemed to show only two inches between them. Os uteri admits only one finger. Membranes intact. Labour had been going on for at least seven hours severely before entering hospital, the pains being at five minutes intervals. On consultation it was decided that the only chance for the child and the best for the mother was section. It was explained to her and she consented. Operation was performed without difficulty, and a child 5 lbs., 14 ounces was delivered. During the operation the pulse rose to 120, and although she rallied after operation she gradually sank and died from heart failure on the third day. Post mortem showed normal condition of peritoneum.

Case No. 3, (3,069). Mrs. S., æt. 28; 1-para.; admitted in the 8th month of pregnancy.

Personal History. She had mitral and aortic murmurs for some years, probably following a severe attack of scarlet fever.

Family History. Nothing of note.

Present Condition. Genito-urinary system, nil.

Respiratory System. Great shortness of breath. On examination, chest shows dulness over base of both lungs, that on right side being  $3\frac{1}{2}$  inches, left side  $2\frac{1}{2}$  inches, which is rapidly increasing. Moist rales present in both lungs. Patient unable to breathe in recumbent position. Respirations 40 per minute.

Circulatory System. Mitral and aortic regurgitant murmurs. Area of heart dulness slightly increased. Pulse varies from 120 to 140, weak. Compensation failing rapidly.

General System. The patient is a healthy, well developed woman in appearance; average amount of subcutaneous fat. On consultation we felt that only one course was open to us, as we had tried every means of supporting the heart and failed, and that was to empty the uterus. As the cervix was very long and only admitted the tip of the finger and patient was rapidly getting worse, we considered that the most rapid and least injurious method of relief was section, which was proposed and accepted. Anæsthetic used was pure chloroform alternating with oxygen. Operation was completed entirely in 45 minutes. It was most interesting to notice the prompt and interesting relief when the uterus was emptied. In this case the most interesting part was the first ten days after the

operation. It was a continuous and determined fight for life. Oxygen was used in large quantities, with adrenalin, strychnine, and all the ordinary and extraordinary heart stimulants. Of all the remedies used beside oxygen, I found that three grains of powdered digitalis leaf given twice daily for four or five doses, produced by far the best effect, bringing down the rate of pulse and increasing its volume markedly. Patient left the hospital, walking down stairs, on the 31st. day after section. The child was only 8 months in utero, and had, I believe, suffered very much from the mother's condition before section. It died on the 23rd. day.

Case No. 4, (3,085), Mrs. W., 2-para.; æt. 33; admitted in labour, May 22nd, 1904.

As patient was operated on shortly after being admitted to the hospital, history is wanting.

Present condition. Membranes broke May 18th, at full term she believes. On examination of vulva a mass  $2\frac{1}{2}$  inches long and 2 inches in diameter protruded, which was found to be the cervix uteri. On introducing the index finger it measured 5 inches to the well marked internal os. No history could be obtained of the condition except that it came on slowly. She had no trouble with her first child. It was clearly a case of hypertrophic elongation of the cervix. As labour was in progress, the pains being ten

minutes apart, we considered in consultation that we would not amputate the cervix nor dilate it, and that the only method of delivering patient safely was section, to which patient agreed. The tubes were not tied in this case, as patient was advised to have the operation later, amputation of the cervix. The placenta was anteriorly implanted. Child weighed 5 lbs., 11 oz. Time occupied by the operation 43 minutes. Patient made an uneventful recovery, leaving the hospital at the end of the month. In this case, although the union of the skin was perfect at first, several silk sutures had to be removed later. The extreme thinness of the skin and the closeness of the silk knots to the surface, I feel had something to do with their infection. On their removal the small sinus closed at once. In this case patient nursed her child, and both left the hospital in good condition. The patient was not rendered sterile.

Case No. 5, (3,128). Mis. D., 2-para.; æt. 33; entered hospital August 11th, 1904, having been intermittently in labour for the past fortnight, severe pains coming on every night at 15 minute intervals, but now severe and ten minutes apart.

Personal History. The only thing worth noting was the fact that her first labour was exceedingly severe, the child weighing 11 lbs., and labour lasting 27

hours. The last three hours she was unconscious from its severity, according to her account.

Family History. Nil.

Respiratory, genito-urinary and circulatory systems normal.

Present Condition. Patient, a large, well nourished woman. There are large varicose veins on both legs, about vulva, and inside the vulva and on vaginal wall. On examination os uteri dilated about the size of ten cent piece and seemed hard and to be formed of cicatricial tissue. Child calculated to be about eight pounds, and from its size and the local condition and labour being so long on and no advance made, on consultation the question lay between an accouchment forcée or Cæsarean section. From the local condition of varices and cicatricial os, it was considered that section would be the least dangerous. The woman desired to be rendered sterile, as she dreaded under these conditions to have children; the husband consenting, section was decided upon. After opening the abdomen, the uterus was found to be too large to take out of the opening made, so it was opened in situ, and after the removal of the child, the uterus was taken out of the abdomen and the usual procedure followed. Operation took one hour and five minutes. The tubes were tied in two places and cut between. Twenty skin sutures were removed on the ninth day. Union was by first intention

throughout, except at one spot where a deep suture had to be removed. No further trouble occurred. Patient nursed her baby and left the hospital well on the 30th day, able to walk from her room to the cab at the door. (August, 1905, saw mother and child—both doing well.)

Case No. 6, (3,137). Mrs. T., 4-para; æt. 35; admitted August 25th, 1904.

Family History. Nil.

Respiratory, circulatory and genito-urinary systems normal.

Personal History. Patient, a small delicate woman. Her first two confinements were exceedingly difficult forceps cases, followed by post-partum hæmorrhage, which nearly cost her her life. Last year, on the advice of her physician in consultation with a specialist, it was decided that an abortion was called for. She was then  $4\frac{1}{2}$  months pregnant. She again nearly died and was a long time convalescing.

Present Condition. She was found to have a contracted male pelvis, conjugata vera, 7.5 cm. (3 inches). The position by palpation was diagnosed as a breech. Placenta implanted posteriorly. Child probably a male. Has had irregular pains for a week past. No dilation of os or cervix. Patient and her husband desire to have section performed and that she be rendered sterile. August 26th, operation performed. Placenta found posteriorly; the membranes

were so adherent that they were removed with great difficulty, and a distinct sound like tearing off adhesive plaster from the skin could be heard. After closing the wound there was a slight hæmorrhage from the uterus, but a hot douche controlled it and there was no further difficulty with the case. Time of operation, 1 hour and 8 minutes. A great deal of the time was taken up in approximating the skin carefully; child a female, weighed 6 lbs. 4 oz., biparietal diameter being 9.5 cm.

Case No. 7, (3,280). Mrs. P., 1 para; æt. 20; German-Jewess; admitted April 13th, 1905, at 9 a. m., to Women's Hospital, in labour.

Personal History. Has suffered intermittently for years with bronchitis; nothing else to note. Last menstruation July 18th, 1904.

Family History. Nil.

Present Condition. Respiratory system. Has short, dry and hacking cough with scanty expectoration. Breath sounds harsh. Medium and fine rales heard over both lungs.

Circulatory System. Pulse soft and irregular. Other systems nil. Patient a small but apparently well nourished woman; height 4 feet, 11 inches; weight 100 lbs. Had been in labour 9 hours before admission. Presentation above brim. Vertex L. O. A. Fœtal heart faint, 138.

Mensuration. Interspin, 24 cm., (normal 26.5 cm.); Interchris, 25 cm., (normal 28 cm.); Ext. Conjugat, 16 cm., (normal 20 cm.); Intertrochan, 30 cm., (normal 32 cm.); Interisch, 7 cm., (normal 10 cm.); Pub.-Coccyg., 10 cm., (normal 9 cm.); Depth of Symphysis, 10 cm.; Calculated intern. conjug., 7 cm. or  $2\frac{3}{4}$  inches. In other words a justo-minor pelvis; and a child calculated to be well over  $8\frac{1}{2}$  lbs. During the morning the patient did not complain much of the pains, although they seemed to be strong. About 4.30 p. m. pulse began to give way, rising to 144; temperature was  $100.4^{\circ}$  F., respirations 30, and it was decided to interfere. Chloroform was used (D. & F.) on account of the bronchitis. The only operation in this case was section, which was performed as described. Time required to finish the operation as far as the skin was about 33 minutes; fully 20 minutes were taken up in closing the skin. Child was a male; 9 lbs. 2 oz. in weight. Fœtal head, in spite of considerable moulding having taken place, when measured immediately after its delivery was found to have: Biparietal diam. 10 cm.; Occip.-Ment., diam. 14 cm.; Occip.-Front., 13 cm. Patient's condition when removed from the operation table was improved. Pulse had fallen to 120, volume better. Temp.  $99.4^{\circ}$  F., R. 20. During the night the temperature rose to  $103^{\circ}$  F.; Pulse

120 to 140; R. 35. Glycogen was given hypodermically every six hours for six injections, magnes. sulph., glycerine, terps, and water given as a high enema, brought down a large quantity of gas. The bronchitis from which the patient had been suffering before operation developed into an acute capillary bronchitis, seriously effecting the aeration of the blood, the patient getting very bronzed. Oxygen gas had to be given every two hours for the next six days. Strychnine gr. 1 30 alternating with adrenaline min. xv, were given every four hours hypodermically for the four first days. Peptenoids were given and retained, as well as milk. The rectal tube was passed every two or three hours until the tympanites, which had distressed the patient very much for the first few days, had disappeared. The bowels were regulated by saline enemata as already mentioned. The stitches were removed from the skin on the eighth day and union was found to be perfect: primary union. The bronchitis gradually disappeared and the general condition improved to such an extent that on the 14th day she was able to get out of bed for 10 minutes, and at the end of the week she was able to spend most of her day out of bed. The patient left the hospital on the 25th of May in excellent condition; she is on the 42nd. day. In this case the capillary bronchitis was very severe and gave us considerable

anxiety, but the oxygen seemed always to give immediate relief, although not lasting, but by its continued use, I believe, we saved her. For the first few days tympanites gave us a great deal of trouble but by passing the rectal tube frequently and giving the high rectal saline we were able always to relieve her. Before leaving the hospital a small abscess about the size of a bean developed on one side of the wound and was opened and healed easily. It was not a stitch abscess; probably where a vessel was caught by a Pean. Child living and, although not nursed, thriving well.

Case No. 8, (3,299). Mrs. C., 2-para; æt 26; French-Canadian; entered the Women's Hospital, May 5th., 1905.

Personal History. Was confined in the hospital in May, 1903 of a child weighing 10 lbs., and it was then found that she had a justo-minor pelvis. The child was turned and the after coming head had to be perforated to deliver it. A note was appended to the history that section would be advised in case of her return to the hospital.

Mensuration. Interspin., 21 cm., (normal 26.5 cm.); Interchris., 22.5 cm., (normal 28 cm.); Exter. Conjug., 16.5 cm., (normal 20 cm.); Inter. Troch., 25.5 cm., (normal 32 cm.); Inter. Isch., 6.5 cm (normal 10 cm.); Pub.-Coccyg., 8. cm., (normal 9 cm.); Depth of Symphysis, 9 cm.; Calculated Intern. Conjug., 7.5 cm., or 2 7/8 inches.



**Family History.** Mother has always had exceedingly difficult labours, as well as two married sisters. Otherwise nil.

**Present condition.** Respiratory system.—Sibilant and sonorous rales over chest generally, with a severe cough and scanty expectoration. The succussion caused by the cough acts entirely on the lower part of the abdomen, below the umbilicus, and is most intense. Circulatory system.—Soft diastolic murmur over aorta. Urinary system.—Urea half normal quantity with slight trace of albumin.

Patient a short (5 ft. 4 in.) stout (140 lbs.) well nourished woman, pasty coloured. In the hope of being able to ameliorate the bronchial condition it was decided to wait as long as possible before operating. Fœtal heart was in first position, frequency 138, vertex L. O. A. Diagnosed a boy and between 9 and 10 lbs. weight. During the next eight days, or until labour set in, there was a very marked improvement in the cough. On May 13th, at 6 a. m., labour began, pains being very slight. At 5 p. m. operation performed, chloroform being used on account of the bronchitis. Child a male weighing 9 lbs. 4 ozs. delivered.

**Mensuration.** Sub. Occip-Breg. 10.5 cm.; (normal 9.5 cm.); Occip-Front. 17 cm.; (normal 11.5 cm.); Occip-Ment. 15 cm.; (normal 14 cm.); Bipariet. 14 cm. (normal 9.5 cm.); Circumf. 40 cm.; Hips 18 cm.; Shoulders 12 cm.

Time of operation 41 minutes to the skin. Left the table in 56 minutes. In putting in the skin sutures, especially in the lower part of the wound, at least half an inch of skin was included on each side to give additional strength on account of severe cough. In spite of this within the first two or three days the three lower stitches were torn through. However, outside of the trouble arising from the bronchitis we had very little trouble with this patient. The child was nourished for two or three weeks, but her milk failed and the baby had to be fed. The patient left the hospital on the 18th of June, on the 44th day, in perfect health apparently. Had it not been for the bronchitis she could have left much sooner.

Case No. 9, (3314), Mrs. D., 1 para; æt. 22; French-Canadian. Admitted to the Women's Hospital June 4th, 1905, referred to me and Dr. Semple.

**Personal History**—Nil.

**Family History**—Nil.

Respiratory, circulatory and general systems, normal.

**Present Condition.** Patient a well nourished woman, 5 ft. 2 in. in height. Had been in hard labour for 48 hours. Pulse 140, temp. 99.6° F.

On examination per vaginam, head not engaged resting above brim. The promontory of the sacrum could be easily felt on a level with the lower border of the pubic arch, and  $3\frac{1}{8}$  inches posterior to it.

Mensuration. Interspin, 22 cm.; Interchris, 23 cm.; Intertroch, 26 cm.; Pub.-Coccyg., 8 cm.; Ext. Conjug., 16.5 cm.; Int. Conjug., 8 cm., or  $3\frac{1}{8}$  inches.

When the patient stood erect the lower part of the back was very much curved forward, the pelvis being almost of the sacro-lumbar-kyphotic type (the promontory being thrown very much forward) with more or less general contraction. As no possibility existed of delivering her of a living child per via naturale we performed section, delivering her of a male child 6 lbs. 10 oz. in weight. The child's head had been moulded to a very great degree and still had failed to engage.

These measurements were taken immediately after removal of the child from the uterus, and it is of interest to note that inside of two days the gain in the biparietal

diameter was almost 2.5 cm. To the skin took 36 minutes. Some time was lost on the skin by using horse hair which was a little short. Patient left the table in good condition; pulse 120; temp. 99° F.; resp. 30. Diameters of head—Occip.-Front., 11 cm.; Occip.-Ment., 12 cm.; Bipariet, 9 cm.

This patient proved to be the ideal one described in text books. She never gave us the slightest trouble. Third day half diet; fourth day full diet; stitches out of skin on eighth day primary union full length; fourteenth day out of bed and twentieth out of hospital. Baby was nursed for about ten days but as it was failing we had to feed it. It throve and left with the mother in good condition.

The last two patients, owing to their religion, refused to have anything done to prevent future conception.



# FUNCTIONAL MURMURS.

By J. H. GRAY, M. D.,

Fairville, N. B.

(Read before the St. John Medical Society.)

EVER since the auscultation of the heart has been practised, it has been known that heart murmurs frequently occur that are not dependent upon organic disease of the cardiac valves. Laennec, the father of auscultation, describes these murmurs as follows: "I have known a considerable number of persons to die of different diseases, acute and chronic, who have presented the bellows murmur very distinctly during life, sometimes during several months, as well in the heart as in different arteries, and upon examination of their bodies, I could discover no organic lesion coinciding constantly with the phenomenon, which are not constantly met with, in subjects who have never exhibited anything of the kind during life."

Since that time these murmurs have been the subject of much investigation, and everyone agrees to their frequency, but they are liable to lead to mistakes, involving great hardships upon individuals who are thus prohibited from entering various employments, or being insured, or restricted to a semi-invalid life; with the dread belief always present, they are suffering from heart disease.

Sir William Broadbent, in an address delivered before the North West Clinical Society of London, alluded to this point, and said that young men are sometimes rejected on totally inadequate medical grounds, after having a place on the list of Woolwich and Sandhurst. He says: "The candidate has usually been spending long and late hours in study, with restricted exercise, and limited fresh air, and with possibly unlimited tobacco. He presents himself for medical examination in a state of extreme nervousness. His pulse is rapid, and perhaps irregular, his cardiac impulse violent and may be diffused, even beyond internal border. Murmurs may be heard at one or more orifices. It would take a great deal to make me reject a captain of a football team, of a large school. I have known such bruits to be looked upon as indicative of valvular disease, requiring treatment with digitalis and demanding all sorts of precautions in the matter of exercise."

But these murmurs may occur in the apparently healthy who have not been undergoing any debilitating process, such as students do, on the eve of an examination.

Functional murmurs may occur in any of the cardiac areas, but by far the most common position is from the second to the third left intercostal space, next to the sternum, or a little external to it. While heard loudest at this point these murmurs may be heard over most of the præcordium, as far down as the apex, and even to the right of the sternum. There will usually be murmurs at the root of the neck. There is usually a well marked accentuation of the second sound, and this sound usually precedes the murmur. Functional cardiac murmurs are always systolic, and this point can scarcely be overestimated. They are much affected by the posture of the patient, being absent or slightly marked when standing, and much louder when in the horizontal position. These functional murmurs are of extremely common occurrence and it is surprising if the heart be carefully examined, in a series of cases who are lying down, who are not supposed to have heart disease, how often these murmurs will appear. Rudolf of Toronto, claims to have found them in 60 per cent. in sick children's hospitals.

Mr. W. S. Lemon, a fourth year student, found 50 per cent. of patients taken at random in the General Hospital. Their ages taken were from 5 to 84. These murmurs occur very frequently in cases of anæmia and hæmic or anæmic bruits are applied to

them. But it is a great mistake to think these murmurs belong to such individuals.

All kinds of lowered general health, occurring in the wake of some acute disease, or perhaps being nothing more than a run down condition; students working hard for examinations; women worried and out of health over domestic affairs; youths following indoor occupations, and perhaps indulging too freely in tobacco, and in other ways having habits tending to lower their general health, are especially prone to have these murmurs. They also occur when no flaw in health can be discovered. In the absence of anæmia, these murmurs may be associated with symptoms referable to the heart, such as shortness of breath, palpitation, dizziness, and faintness; but these are seldom symptoms of real break down in compensation, such as œdema, cyanosis, and venous enlargement of the liver and other organs; and on physical examination the signs of marked dilatation are absent.

On the other hand the vasomotor tone is lowered, and the arterial pressure is consequently low. There is generally a vasomotor instability with a tendency to a bounding aorta with throbbing carotids, and the extremities tend to be cold.

#### DIAGNOSIS.

It is hardly necessary to emphasize the importance differentiating clearly these functional murmurs

from those produced by organic disease, inasmuch that prognosis and treatment are so different. As a rule there is little difficulty. Give an overworked, nervous youth, with a systolic murmur, heard loudest at left third costal cartilage, associated with well marked venous hum in the neck, and one can think of scarcely anything else except functional, and curable disease. But some are very puzzling, and it requires every possible test to reach correct conclusions. I here give a list of these tests as compiled by Rudolf.

1. Functional murmurs most commonly occur during adolescence and early life.

2. They are more common in males than females, although there are many exceptions to this; and chlorotic girls are very prone to have them.

3. They always occur in systole of the ventricles, either accompanying or immediately following the first sound of the heart: that is they are always systolic in time. Certain diastolic murmurs are described by Cabot, but they are so rare as to be of little interest. It would take a great deal to diagnose a diastolic murmur as functional.

4. While functional murmurs may occur over any of the cardiac areas, by far the most common is the pulmonary area, and a little below this, say about the third left costal cartilage. A murmur occurring away from this point, and

unaccompanied by one here should not be diagnosed as functional, unless for some very special reason.

5. A pulmonary systolic murmur, due to organic disease, is very rare, except congenital. When due to organic disease, other signs, such as cyanosis, stunted growth, clubbed fingers are usually present; and the pulmonary second sound is not accentuated.

6. The *bruit du diable* and arterial bruits heard in the neck are always functional, except in aneurism where such cardiac murmur is associated with vascular ones; there are considerable reasons for believing it too is functional. On the other hand there is no reason why organic valvular disease should not be associated with functional ones, and this is often found to be the case. The functional will clear up in time, the organic persists.

7. Functional murmurs as a rule are soft in character, and accompany rather than replace the first sound. They may, however, be loud and rasping, and the pulmonary one especially apt to be harsh in character.

8. Functional murmurs are not so widely conducted as organic ones and are seldom heard in the axilla.

9. Functional murmurs vary much more under different conditions than do organic. They are louder after exertion and during expiration and are markedly increas-

ed in the supine position: in fact may only be heard when lying down.

10. The pulmonary second sound is early accentuated, and this sign may occur before any murmur is audible. In true pulmonary stenosis no such accentuation is present.

11. In functional murmurs there is little sign of hypertrophy or dilatation of the heart, and the apex is not much displaced. A certain amount of cardiac dilatation and displacement of the apex

beat is quite common; the apex being displaced upward and to the left.

12. Cardio-respiratory sounds are sometimes mistaken for cardiac murmurs.

13. Functional murmurs tend to disappear as the patient improves in health. Not so with organic, as they become louder as the heart's action strengthens.

14. Signs of breaking down of compensation are rare in functional cases, and such breaking down should suggest organic disease of the valves or heart muscles.



**The Higher Pharmacy.**—In more ways than one, C. H. McConnell, president of the Economical Drug Company, of Chicago, is a unique figure in the retail drug world. Although he pretends to no knowledge of pharmacy he is the proprietor of and conducts one of the most strictly pharmaceutical stores in the United States, putting up 400 to 500 prescriptions daily and selling no soda water and no cigars. Without any pretence of being a professional man he has not hesitated to discourage the use of proprietary medicines, and has gone to the extent of printing circulars warning customers against the use of certain patent medicines containing alcohol or cocaine, and of handing out one of these circulars

with each of the bottles sold. He first declined to sell a catarrh snuff containing cocaine, but finding that this did not stop the sale he again put it in stock, and with each bottle sold handed the customer a circular setting forth the dangerous contents of the patent medicine and the risk of acquiring a habit from its use. Now Mr. McConnell has set aside \$26,000 worth of common stock, one-fourth of the whole, to be given to employees who have been five years in his service, the stock being paid for out of the annual dividends, which have been fixed at 40 per cent., though the earnings have really exceeded this figure. Would that we had more such figures in pharmacy!—*American Druggist.*

# PROPHYLACTIC TRACHEOTOMY FOR OEDEMA OF THE GLOTTIS

## WITH CASE REPORT

By *W. H. IRVINE, M. D.,*

*Fredericton, N. B.*

(Read before Canadian Medical Association, Halifax, August, 1905.)

**T**HIS case occurred in a man aged twenty-two, first seen Sept. 14th, 1904. Presenting a history of headache of two weeks or more standing, slight elevation of temperature, enlargement of the right tonsil with a grayish deposit on the apex, some dysphagia, but what annoyed him most was excessive salivation. Tongue was slightly rough and furred, but did not present anything noticeable in the way of erosions, etc. An antiseptic mouth-wash was prescribed, with a request to report daily. These symptoms persisted and in the course of a week, or thereabouts, the other tonsil, the parotids, and all the cervical lymphatics were greatly swollen. And what proved to be a primary lesion of specific origin was noticeable, becoming more pronounced daily until it assumed fairly characteristic proportions.

The following group of symptoms gradually developed, all being present on the 24th of September, viz: Pain in throat and ears; impaired hearing; dysphagia; flushed face · dilated pupils; in-

jection of ocular conjunctivæ; superficial ulcerated appearance of right tonsil; and general erythema of fauces. All this time the temperature fluctuated between 99 and 101. Careful examination of the body failed to reveal any rash, search for same being made daily. Speech was difficult and thick; movement of the tongue causing pain; excessive salivation from the first was continually present.

For a few days the question of diagnosis was uncertain, fearing the possibility of tuberculosis or malignant disease, the former being a family relict, the latter a possibility. Doubt was removed, however, after the sore on tongue, lymphatic enlargements and above enumerated symptoms developed; when efforts were made to get him under the influence of mercurials and iodides. Mercury was simultaneously administered per os, by inunction, and hypodermically, evidences of intoxication from the same not being apparent. Despite these therapeutic means there was little abatement in the progress of the case, and on the 4th of October dyspnoea began to

manifest itself, and on the 14th of October, despite the use of orthodox inhalants, modified atmosphere, etc., it gradually deepened, cynosis being marked at times. Morphia and atropia administered subcutaneously afforded more relief than anything else. Deglutition was now almost impossible and aphonia complete. Therapeutic measures being exhausted tracheotomy became imperative, as the œdematous state of the larynx and oro-pharynx made intubation impracticable, so on the evening of the 16th I did a tracheotomy, Dr. W. J. Weaver administering the chloroform (a very small quantity being required). The relief was complete and the subsequent progress of the case eminently satisfactory. The use of potassium iodide was stopped four or five days before the operation.

The trachea was quickly opened with very little traumatism to the parts, and on the next day the tube was removed and the opening closed, by way of experimentation, when breathing was rendered absolutely impossible.

The tube being re-introduced was left in situ for three days or thereabouts; by which time the œdema had sufficiently subsided to permit comfortable breathing through the incision and the natural passages combined.

Now it was noticed that the gums were pretty sore, the first evidence of saturation manifested.

The incision was permitted to close by granulation.

The writings of a number of men which I have reviewed elucidate many of the features of this case, as the following brief quotations and excerpts will show, viz: "Any of the various lesions displayed upon the skin during the entire course of syphilis may appear upon the mucous membrane of the mouth or throat, modified by the varying conditions of heat, moisture, friction, etc., and frequently possesses obstinate and intractable characteristics."

"In syphilis of the mouth the only primary rash may be an erythematous condition of fauces or pharynx."

"Initial sclerosis is formed upon the lip or within the oral cavity more often than anywhere else, except on the genital region. On the tongue either at the tip (as in the case mentioned) or on its anterior half, usually appearing as an erosion or nodule superficially seated and indolent in its course. Induration may be marked or it may be absent for a time, and if slight at first may be entirely overlooked. The submaxillary, subhyoid, and the cervical lymphatics frequently become greatly indurated, leading one to be in doubt in atypical cases for a time at least as to whether we have a tubercular or malignant etiology. A short delay in the exhibition of mercurials will involve no peril and will enable the physician to



reach a satisfactory and conclusive diagnosis."

"In pharyngo-faucial infiltration, about the time the roseola appears, sometimes shortly before or after, there is a development of an inflammatory engorgement of the tonsil, pharynx, soft palate, involving usually the whole faucial surface."

"The explanation of the involvement of the fauces and pharynx in secondary syphilis upon the ground of lymphatic engorgement, the primary cause of which is the abundant and superficial character of the lymphatic capillaries of the affected parts, is quite plausible. The vaso-dilation due to the action of syphilo-toxines upon the lymphatics as an admissible factor is possible."

So it would seem that this case was one of the comparatively few

where the infiltration was so intense and so resistible to therapeutics that a prophylactic tracheotomy was demanded. Careful perusal of the writings of a number of authors—eight in all—fail to record parallel cases. Though Cohen, in "Burdett's System of Diseases of the Nose and Throat," and Simpson in "Posy and Wright's Diseases of the Nose, Throat and Ear," speak of the necessity of tracheotomy in cases of this nature.

Authorities referred to :

- Lang—20th Century Practice of Medicine.
- Bosworth—20th Century Practice of Medicine.
- Hutchinson—20th Century Practice of Medicine.
- W. F. Robinson—American Syst. Pract. Med.
- J. Solis Cohen—Burnett's Sys. Dis. Ear, Nose and Throat.
- W. Kelly Simpson—Posy & Wright, Sys. Nose, Throat and Ear.



# CARCINOMA OF THE LACHRYMAL GLAND

## CASE REPORT

By E. A. KIRKPATRICK, M. D.,

Halifax, N. S.

(Read before Canadian Medical Association, Halifax, August, 1905.)

THE following is a brief report of a case of carcinoma of the lachrymal gland.

Mrs. M——, age 69, Waterville, King's Co., was admitted to the Victoria General Hospital September 16th, suffering from a tumour of the lachrymal gland of the right eye. There was nothing in the family history worthy of note, neither was there any history of traumatism of the part affected.

The tumour had its beginning about fourteen years ago and was of very slow growth. The size of tumour was that of an ordinary plum: was firm to the touch and the skin was freely movable over it. It was easily peeled out and a free hæmorrhage followed, the control of which required digital pressure for over an hour. Recovery was perfect and the patient was discharged on October 21st.

A note from her family physician quite recently informed me that the patient was enjoying good

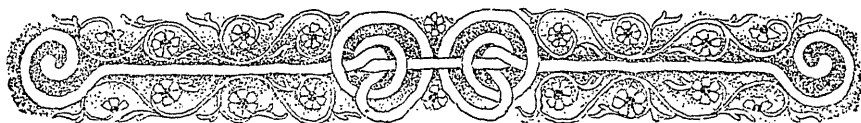
health and there had not been a return of the growth.

Carcinoma of the lachrymal gland being of rare occurrence I thought it sufficiently interesting to place on record.

### Pathologist's Report.

Tumour removed from orbit Oct. 2nd, 1904. Specimen size of an ordinary plum, irregularly oval in shape and surrounded by a more or less distinct capsule; extremely hard in consistence and section cut like cartilage.

Microscopically.—Sections from various parts of the specimen had a different appearance, one with acini lined by a single layer of columnar epithelium resting on a thick basement membrane, while another had larger or smaller alveoli filled with glandular cells and embedded in dense fibrous tissue. The fibrous tissue throughout the specimen was abundant and very dense. Specimen was one of adeno-carcinoma of lachrymal gland.



# TREATMENT OF TUBERCULAR FISTULA IN ANO.

By E. O. WITHERSPOON, M. D.,  
Louisville, Ky.

(Read before the Louisville Medical and Surgical Society, January 15, 1906.)

As my title indicates I shall limit myself to the discussion of only one phase of fistula in ano, and not even mention the varieties, much less discuss the various means of treating fistula other than the one selected, namely, tubercular fistula.

As you all know by tubercular fistula we do not necessarily mean a fistula in a patient suffering from pulmonary or abdominal tuberculosis, as the fistula may be the first manifestation of this infection. It is a mooted question whether the tubercular fistula will necessarily be followed by other tuberculous manifestations or not. However, the tubercle bacilli must be present in the system to localize and form a tubercular fistula.

Every fistula should be scraped lightly, care being taken not to break down the surrounding wall, and a microscopical examination made to determine if there are any tubercle bacilli present. Allingham states that fourteen per cent. of all fistulae coming under his observation showed tubercle bacilli. Hartman found thirty per cent.; Griffrath sixteen per cent.; Tuttle nearly fifty per cent. The microscope will frequently reveal these life destroyers where least suspected.

This microscopical examination should be made very carefully as the bacilli may be present only in small quantities, as they adhere very closely to the walls of the fistula, may not be found at all in the discharge of the fistula, and not be obtained in any great amount in the scrapings.

As to the direction and length of a tubercular fistula, it may be anywhere as in the case of other fistulae, varying from only a short outlet of the cavity to one ramifying the surrounding tissues in every direction; in the course of its formation the pus seeking the source of least resistance.

I do not think it is worth while to waste time on any palliative treatment of this condition whatever, provided the patient is in an operable condition, so will discuss only the different operations for fistula and their application to the tubercular variety. As, in my opinion, palliative treatment should be used only when it is too late to operate, owing to the general condition of the patient, and only as a means of relieving pain, not expecting a cure.

To prevent foci remaining all fistulae should be laid open or removed in their entirety. It must

be kept in mind that any denuded surface is liable to be the seat of a new infection in any operation, and particularly so in this tubercular condition.

The elastic ligature is sometimes used but is objectionable for three reasons in particular, namely, it is extremely painful and unnecessarily slow, besides, in my mind being absolutely contra-indicated in tubercular conditions for the reason that the raw surfaces offer a splendid opportunity for fresh infection.

The operation of scarifying the walls of a tubercular fistula with a fistulatome is out of the question for, besides the inability to reach but one tract, and we can never tell there is only one until that has been opened and investigated, you have the danger of hemorrhage and infection of the newly cut surfaces.

This then brings us to the consideration of the operations of incision or division and excision. The advantage claimed for the excision operation is that the tract is removed in its entirety without danger. This is very good provided the wound heals by first intention, but there are great chances of infection from the rectum in this operation, so I cannot see that it is entirely free from danger of infection. This operation will answer very well in patients who have other tubercular infections besides the fistula, but do not think as much of it in

patients in which only tubercular infection is manifest in the fistula.

In my opinion the operation of incision is the best one to employ provided it is done with the cautery knife, not using the regular scalpel, as the same objection holds good to the incision method with the scalpel as to any other denuding operation. The method of procedure in the incision method by means of the cautery knife is the same as the incision method with the scalpel, except a cautery is used in place of the scalpel and the incision made through the skin first instead of from the grooved director outward. By this means the fistula may be explored with the probe or grooved director and every sinus opened and obliterated. The cautery passing through the tissues, burns them and occludes all possible sources of infection. Upon reaching the fistula it has left behind no exposed areas. The tract should be thoroughly destroyed, in doing which any bacilli present will also be destroyed. By this means you have left an absolutely aseptic wound which heals about as rapidly as the plain incised wounds.

The only objection to this operation that has been advanced is the sloughing which follows. This does not amount to much if the operation is properly performed. The length of time required for healing in any wound of this character of course depends on the extent of the wound, and the

amount of attention required is no greater than that required by other incised wounds.

In the comparison of the two operations, viz: Excision and incision by means of the cautery, the latter appeals more to me for several reasons. First, it does not require anything like the length of time to perform that the excision operation requires, thus necessitating less anesthetic, and the anesthetic is a very serious proposition in the majority of these cases, especially those patients who have other manifestations of tuberculosis. Second you have an open wound to deal with which can be easily cleaned and dressed. Thirdly, and principally, you are not running

the chances of infection from the germ present that you are in the excision operation, as the cautery seals up the tissue as it passes through them, leaving no exposed areas. Fourthly, there is no hemorrhage from the cautery operation. On the other hand, in the excision operation, should the fistula have more than one branch there is danger of cutting into the tract itself, thus rendering the whole field liable to infection, also there is more hemorrhage. The question of hemorrhage, however, should be of very little concern in these days of surgery as it is so easily controlled in these operations as not to figure as any factor of importance.



#### Starch Digestion in Children.

Kerley and Campbell, of New York, *New York Medical Journal*, Jan 27th, 1906, report the results of tests undertaken to learn something of the digestive capacity for starchy food in children under one year of age. The test employed was the examination of the stools for starch by the von Jaksch method. 166 examinations of the stools of 30 children, inmates of the New York Infant Asylum, are reported, 353 other examinations being thrown out as not reliable. Barley flour cooked one and one half hours was used as the food either alone or with milk. In 16 children the examinations were persistently negative to starch. Among these was one 19 days old who took 142 grains of starch daily: one under

six months was given 1500 grains daily for two days without starch appearing in the stools. In five of the negative cases there was moderate, and in one, severe diarrhœa. In three cases the tests were persistently positive, and in the remaining eleven, sometimes positive, sometimes negative. In one case perfect digestion of starch resulted from entirely cutting off the milk diet and thus checking the diarrhœa present. Among the 30 cases, 23 showed a good starch capacity: Of these 11 had diarrhœa, 7 showed poor starch capacity: of these one was eight days old, the other six had diarrhœa. Dextrin was present at times in ten cases, indicating incomplete starch digestion.

# SANATORIUM FOR NEW BRUNSWICK.

A LARGE and most representative delegation waited on the local government of the province of New Brunswick on the twentieth of March, and urged that steps be taken to establish a sanatorium for the treatment of tuberculosis.

The meeting was held in the executive council chamber and presided over by Premier Tweedie.

Dr. G. A. B. Addy, as chairman of the committee appointed by the New Brunswick Medical Society to draw up a scheme for the establishment of a sanatorium, read their report, the greater part of which appeared in a previous issue of the MARITIME MEDICAL NEWS.

The committee recommended the adoption of the pavillion or cottage plan, which is universally recognized as the best plan of hospital construction thus far devised, and one possessing many important medical and sanitary advantages.

Each patient is provided with a separate sleeping apartment. The arrangements are those of a home with all the advantages of a hospital.

The capacity of the building is fifty patients and realized upon the following plan of expenditure :

Land.....	2,000 00	
Land Improvement.	500 00	
	<hr/>	\$ 2,500 00
Main building.....	20,000 00	
Roof tents.....	400 00	
Cold storage, ice house, etc.....	200 00	
Stable.....	200 00	
	<hr/>	\$20,800 00
Bedding, napery and general furnishings, implements, dispensary equipment.....	5,000 00	
Electric light, telephone and water supply.....	1,000 00	
	<hr/>	\$ 6,000 00
		<hr/>
		\$29,300 00

Estimated cost of maintenance twenty-five patients for first year :

Provisions and sundries, including salaries, labour, coal, electric light, conveyances, insurance, furnishings, etc., \$12,000.00.

Probable cost per patient, \$10.00 per week.

Income—Patients in a position to contribute towards their maintenance will be supposed to do so ; the amount to be determined by the commission. The municipalities to be responsible for the difference between the amount paid by the patients and the estimated cost of maintenance.

The board of management to consist of six members appointed by the governor-in-council, from the largest centre adjacent to the site selected. Term of office not to exceed five years, except by reappointment.

Summary of report :—

(a) The great desirability of the establishment of a sanatorium

for the treatment of tuberculosis in the province of New Brunswick.

(b) The general plan for the construction and maintenance of such an institution.

(c) A form of government for the same.

After the report had been read and supplemental remarks made by Dr. Addy, the following members of the delegation addressed the meeting in the interest of the scheme :—Judge Longley, Dr. McInerney, Rev. Dean Partridge, Dr. Duncan, Rev. J. H. McDonald,

Rev. Father Carney, Mayor White, Mayor McNally, Dr. Deacon, Dr. Purdy, Dr. Atherton and Dr. Daniel, M. P.

All strongly endorsed the sanatorium proposition and urged the government to establish such an institution.

The Premier was impressed with the arguments put forward by the different speakers, and realized that the matter was one of great importance, and assured them that the matter would receive his careful consideration.



# SOCIETY MEETINGS.

## British Medical Association.

*(Halifax and Nova Scotia Branch.)*

**F**EBRUARY 14th, 1906.—The Branch met at the City Council chamber. On motion of Lieut.-Col. Jones it was decided that circular post cards be sent to all members of the medical profession within the area of this branch, informing them of the annual meeting of the Association at Toronto, and inviting them to become members.

The election of a Representative on the Central Council and Parliamentary Bills committee resulted in the election of Lieut.-Col. G. Carleton Jones to this office.

The regular programme for the evening was then taken up. Lieut.-Col. Jones read a paper entitled, "The Household Fly as a Factor in the Causation of Disease," drawing much of his evidence from the records of military sanitation arrangements in the Cuban, Boer and Russo-Japanese wars.

This paper was discussed by Drs. A. P. Reid, Doyle and others. It was moved by Dr. Eagar and seconded by Dr. G. M. Campbell that Col. Jones be requested to permit the publication of his paper in the MARITIME MEDICAL NEWS and subsequently in the lay journals of the city. Carried.

The President then called upon Dr. Ross for his paper: "Remarks

on the Diagnosis and Treatment of Syphilis." This likewise interesting paper, which will also be published, was discussed informally by most of the members present.

FEB. 28TH, 1906.—Pursuant to a communication from the Medical Secretary of the Association regarding the proposed grouping of the Halifax and Nova Scotia, Montreal and Bermuda branches for the election of one representative, a resolution was passed deprecating such action and requesting no change so far as this branch is concerned.

Dr. Eagar gave notice of motion at some future meeting "that the City Council be requested to take into consideration the proper registry of births and deaths."

Dr. Bryce, of Toronto, as Vice-President of the section on State Medicine for the Toronto meeting, invited contributions from this branch to the proceedings of his section.

The Rev. Dr. Armitage addressed the branch, setting forth a proposition for the building of a block of model tenements in Halifax, and asking the interest and moral support of the medical profession in this city. A committee was appointed to consider what action might be taken by the branch in this matter, and a vote of thanks was tendered Dr. Armitage.



Dr. C. Dickie Murray read a very instructive paper entitled "The Medical Examination of Immigrants," giving a clear account of the working of the U. S. Immigration Service, and referring especially to the immigrants passing through Halifax en route to the United States.

Dr. Hawkins followed with a short paper on "The Diseases of Immigrants." The two papers were discussed together.

Dr. Bryce, of Toronto, Chief Immigration Inspector, spoke at some length on the subject of Immigration, comparing the conditions in Canada and the United States.

After further discussion the meeting adjourned.

#### The Maritime Medical Association

The next meeting of the above Association will take place at Charlottetown in July. On account of the Canadian Medical Association meeting at Halifax last year, the Maritime was deferred for one year. The hospitality of our brethren at Charlottetown is always remembered with pleasure by all visiting members. Every effort should be made for a record attendance and make the meeting a distinct success. All intending to read papers should communicate with the Secretary, Dr. T. D. Walker, St. John.



## PERSONAL PARAGRAPHS.

**D**R. W. D. RANKIN, who returned to Woodstock from the Pacific coast because of the fatal illness of his mother, has been presented with a largely signed petition asking him to remain.

Dr. William Bayard was painfully injured recently. While coming out of his house to his sleigh he made a misstep and fell forward on his head resulting in an injury to his nose and in numerous bruises. It is satisfactory to state that Dr. Bayard is

making excellent progress toward recovery.

The NEWS extends sympathy to Dr. A. A. Lewin of St. John, in the loss of his little daughter from typhoid fever.

Dr. George Elliott, Secretary of the Canadian Medical Association, has been confined to the house for some weeks through illness.

Dr. J. W. Stirling has been recently appointed to the chair of ophthalmology of McGill University, made vacant by the death of Dr. Buller. THE NEWS extends its hearty congratulations.

# CURRENT MEDICAL LITERATURE,

**INTERNATIONAL CLINICS. A quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles.** By leading members of the Medical Profession throughout the world. Volume IV., Fifteenth Series, 1905. Published by J. B. LIPPINCOTT COMPANY, Philadelphia. Canadian Representative, Charles Roberts, 1524 Ontario Street, Montreal. Price \$2.00.

The current volume is replete with many articles of interest and therapeutic value. Dr. Gottheil writes on "The Treatment of Psoriasis," and though there is nothing particularly new in the treatment of this stubborn disease, the writer states in clear language the best means to eradicate the eruption and prevent its recurrence for a prolonged period. As he well says: "More depends on the thoroughness and appropriateness of the application than on the choice of the local drug." The article by Dr. A. E. Thayer on "A Method of Abdominal Palpation" is something distinctly original and appeals to the reader to be of much value in diagnosis. "The Internal

use of Carbolic Acid" by Dr. M. Benedikt, of Vienna, particularly refers to its remedial effect in rheumatic inflammations. Dr. Benedikt says: "My use of carbolic acid in rheumatic conditions antedated the advocacy of salicylic acid, and would have attracted more attention had not the enthusiastic use of the latter by so many physicians entirely obliterated the advantages of carbolic acid and other methods of treatment." Dr. J. N. Hall, of Denver, writes a particularly valuable article on "Empyema, with a Report of Thirty Cases." Other interesting chapters are "The Treatment of Some Common Gastric Disorders" by Dr. N. B. Gwyn, of Philadelphia, "The Value of Post-Tussive Suction as a Sign of Excavation in the Lung", by Dr. D. B. King, of Edinburgh, and "A Contribution to the Study of Eosinophilia" by Dr. C. E. Simon, of Baltimore. The plates and figures are excellent in character and considerably increase the usefulness of the text.

## OBITUARY.

**D**R. MURDOCH MCGREGOR—The death of Dr. Murdoch McGregor occurred at his home, Riverport, Lunenburg Co., on the night of March 6th. Dr. McGregor was born 77 years ago in Ross-shire, Scotland. He came to Nova Scotia when 15 years of age with his father, settling in Cape Breton. He was a teacher for a number of years, but later went to Harvard University, where he entered the

medical class, graduating in 1863. He was appointed surgeon to the Union army and saw considerable active service, being with his corps at the battle of Gettysburg. After the war Dr. McGregor came back to Nova Scotia and located at Lower LaHave and had resided there until his death, a period of 41 years. He was a prominent church worker and was superintendent of the Sunday school at LaHave for the last 40 years.

# FOR IDLE MOMENTS.

## Scene at the St. John Public Hospital.

A MEMBER of the visiting staff entering his sleigh discovers that he has forgotten to take away with him a favorite book on surgical treatment and calls to the porter to get it, giving him at the same time the author's name. In consequence of some delay the member of the staff enquires the cause and finds that search is being made by the porter and several nurses for his *watch and chain*.

## The Strenuous Life—and Death.

Send for a lawyer, a nurse and physician—

I must get busy ; I fear I am ill ;  
Legacy, medicine, powders and mission,  
Don't get prescriptions mixed up with my will !

What ! I'll be all of a month succumbing ?  
Doc, it's amusing to hear how you speak.  
Nowadays people and things must go humming—  
I'll bet a dollar I die in a week !

## Dr. Osler's Latest Find.

Dr. William Osler has recited a quaint old cure for gout, says a local paper : "First pick a handkerchief from the pocket of a spinster who never wished to wed ; second, wash the handkerchief in an honest miller's pond ; third, dry it on the hedge of a person who never was covetous ; fourth, send it to the shop of a physician who never killed a patient ; fifth, mark it with a lawyer's ink who never cheated a client ; and sixth, apply it hot to the gout-tormented part. A speedy cure must follow."

## Serious Mistake.

The man who has been taken from the wreck of the automobile and carried to the hospital is asked what his name is.

"Spuddsgot," he whispers.

"Spuddsgot," whispered the surgeons one to another. "This must be the multimillionaire. We must operate on him."

Rushing the patient to the operating room they remove his appendix and are cleaning their instruments when one of their number, who has bethought himself to notify the family by telephone, rushes into the room and shouts :

"This is a terrible mistake ! We have made a wrong diagnosis."

"Impossible !" cry the others.

"But we have. It is the man's brother who is the multimillionaire."

Chagrined, the surgeons attempt to palliate the patient by offering him his appendix neatly preserved in a cut-glass jar of alcohol.

## Part of the Treatment.

Patient, to Pretty Nurse—Will you be my wife when I recover ?

Pretty Nurse—Certainly.

Patient—Then you will love me ?

Pretty Nurse—Oh, no ; that's merely a part of the treatment. I must keep my patients cheerful ; I promised this morning to run away with a married man who has lost both of his legs.

## Never Used Any Other.

Reporter : "Uncle, to what do you attribute your long life ?"

Oldest Inhabitant : "I don't know, yit, young feller. They's several of these patent-medicine companies that's dickerin' with me."

## Microbes as Mathematicians.

Johnnie—"Pa, won't you please buy me a microbe to help me with my arithmetic ?"

Papa—"What good will a microbe do you ?"

Johnnie—"I just read in this paper that they multiply rapidly."

## Bad Lookout for the King.

An English Professor wrote on the blackboard in his laboratory : "Professor Wilson informs his students that he has this day been appointed honorary physician of his Majesty, King Edward." In the course of the morning he had occasion to leave the room and found, on his return, that some student wag had added to the announcement the words, "God save the King."

## THE TALK OF THE OFFICE.

WE are pleased to report the continued success of our "Forward Movement." New subscriptions are coming in all the time and our old friends are manifesting their interest in various ways. So we hope before long to have the affairs of our journal in such solid shape that we can with safety turn our attention to further improvements. Our readers must not think that we have exhausted our capacity with what we have already done, for we must proceed by degrees and as circumstances permit. Later on when the reader compares our present work with what we will then be doing, he will see that our motto, *Altiora petimus*, has been carried out in actual practice.

One fact which we wish to emphasize is that the MARITIME MEDICAL NEWS exists primarily for the use of the practitioners of these provinces. We believe that the pages are so filled as to be for the most part interesting and valuable to its readers, and that we give an exceedingly good dollar's worth of medical literature in the course of a year. But more than that, it is the mouthpiece of the profession, all of which is, so to speak, "thrown in." The insurance companies make a point of advertising that they give their policyholders all their money back with a large amount of interest added, and *protection for nothing*. The MARITIME MEDICAL NEWS gives a good dollar's worth of valuable reading matter for the annual

subscription and acts as the organ of the doctors *for nothing*.

While we appeal for the support and sympathy of the profession, we are far from doing so in a suppliant fashion. If any doctor feels that he would subscribe simply "out of charity" we would rather he would keep his money. At the same time we believe that such doctors (if there be any) will see, if they consider for a moment, that it is worth a dollar a year to have a good stout organ of the profession in these provinces. Why should it not be? One may not see the personal profit to-day, or perhaps this year, or in any particular year. But the profit is there just the same and will be manifest sooner or later. Else, why should there be organs at all for any profession or trade or class? Thus if any reader is so disposed he can think of his annual investment as being returned in a good dollar's worth of organ and the reading matter thrown in.

The NEWS does three or four things as the main features of its work. In the first place it seeks to discuss those matters which come home most closely to the profession in the provinces, and in this, its aim is not merely to do so editorially, but to have as many readers as possible join in and make the paper to that extent a sort of Open Parliament for doctors. It aims in the next place to publish case reports of value which local practitioners may care to send, and here also the reader can help. It really rests with the readers themselves whether the

News fulfills its mission to the full. Another feature of prominence is the publication of papers read at local conventions, which should be interesting to those who have not attended and valuable for reference to those who have. Another important feature is the department in which are condensed the leading articles of medical journals not widely read in these provinces. Our other departments all have their interest and their value.

Reverting to the subject of support, we must not forget to thank our readers for the generous response to the circular letter which was sent out with the subscription bills not long since. We hope that our purpose in sending the circular was not generally misunderstood. One or two looked upon it in the nature of a sharp dun. We are sorry for this, as our intention was merely to ensure a prompt response on all sides, because at this stage of our development we need money. Being put to some extraordinary expenditures we find that it will require all we earn to make things come out square. Inasmuch as we are doing our best in the interests of the profession, we feel entitled to whatever consideration we can justly lay claim to, and we thought that no one would be offended by a suggestion to pay promptly. Doctors are as subject to the human failure of forgetting as other good people. Our purpose was merely to urge attention to the matter before they had the chance to forget.

While we are on the subject, perhaps those who have not so far responded will not object to a

reminder. There is no one who owes very much, but in the aggregate these amounts figure up a very considerable sum that would help us materially if we had it in our lean purse. If each reader who owes us a dollar or a few dollars would remit today, none of them would feel any strain on their finances, while we, on the other hand, would experience a great relief in ours.

As announced before, this number consist very largely of a long and very important paper on Cæsarean Section by Dr. H. L. Reddy. Our April number will handle a greater diversity of subjects, the manuscripts for which are now in hand. The editors look a long way ahead and are pleased to report that they have a very interesting programme for the next few months.

There is a request we would like to make of our readers, namely, that if they should have occasion to write to our advertisers, they would mention the fact that they saw the advertisement in the *MARITIME MEDICAL NEWS*. We would esteem it a great favor if they would.

Practitioners who would like to have Miss Pattee's book are reminded that we can supply it at the same price that they would pay if buying direct from the author and will not be put to the trouble of getting it put through the custom house. We have had some enquiries for it already, which have been duly filled, and we would like to hear from any others who are thinking of buying.

# Lactopeptine Tablets

A cleanly, convenient and very palatable method of administering Lactopeptine, especially for ambulant patients.

The tart, pineapple flavor, renders these tablets as acceptable as confections. They are particularly valuable as "After Dinner Tablets," to prevent or relieve pain or distension occurring after a heavy meal.

EACH TABLET CONTAINS 5 GRAINS LACTOPEPTINE.

SAMPLES FREE TO MEDICAL MEN.

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88 Wellington Street West,    ❧    ❧    TORONTO, Ont.

# Liquid Peptonoids WITH CREOSOTE

Combines in a palatable form the antiseptic and anti-tubercular properties of Creosote with the nutrient and reconstructive virtues of Liquid Peptonoids. Each tablespoonful contains two minims of pure Beechwood Creosote and one minim of Guaiacol.

DOSE—One to two tablespoonfuls three to six times a day.

*The* **ARLINGTON CHEMICAL COMPANY,**  
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# Borolyptol

A highly efficient (non-acid) antiseptic solution, of pleasant balsamic taste and odor. Absolutely free from toxic or irritant properties, and does not stain hands or clothing.

Formaldehyde, 0.2 per cent.  
Aceto-Boro-Glyceride, 5 per cent.  
Pinus Pumilio,  
Eucalyptus,  
Myrrh,  
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} Active balsamic constituents.

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is obtained from Maritime and Newfoundland fishermen and manufactured by Maritime chemists and capital by an original process. Send for samples.

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## THERAPEUTIC NOTES.

**I**N a paper on "Sexual Neurasthenia in Men", Dr. Arthur E. Mink, of St. Louis, Mo., says: "In the treatment of sexual neurasthenia tonics, such as iron, arsenic, strychnine, quinine, gold and zinc, are of value in many cases. The most efficient in my opinion is sanmetto. It seems to act directly upon the genito-spinal centre and improves its nutrition. Many cases, as I have said before, are remotely due to gonorrhoea, and hence sanmetto is doubly of value in such cases."



**A Plea For The Tablet.**—"In the first place, compared with pills, tablets have no insoluble coating nor, when properly made, have they any insoluble excipient added to their composition. For example, Antikamnia tablets are made by simple compression, and therefore, if the secretions of the human system affect the medicine administered, it is bound to be absorbed in the quickest possible time, which is always an advantage. Comparing tablets with capsules, greater accuracy in dosage is assured, as experiments have proven. For example, forty tablets of Bisulphate of Quinine, made on a machine, adjusted to five grains each, weighed 199 $\frac{3}{4}$  grains on a torsion balance. The most careful druggist knows it would be impossible to do this in filling capsules. The objections some have to tablets

is readily overcome by crushing them before administration and we are glad to know that the Antikamnia people take the precaution to state that when very prompt effect is desired the tablets should be crushed or chewed. Antikamnia itself is not unpleasant to the taste, and the crushed tablet can be placed on the tongue and washed down with a swallow of water. It so frequently happens that certain unfavorable influences in the stomach may prevent the prompt solution of tablets, that this suggestion is well worth heeding. This, however, does not apply to Antikamnia Tablets, for they disintegrate at once, as soon as they come in contact with moisture. Drop a tablet in a glass of water and be convinced of this. Proprietors of other tablets would have better success had they given more thought to this question of prompt solubility. Antikamnia and its combinations in tablet form are great favorites of ours, not because of their convenience alone, but because of their prompt and uniform therapeutic effect."

*The Journal of Practical Medicine.*



**Weakness and Syncope** may arise from cardiac diseases, such as pericarditis, cardiac dilatation, acute or chronic myocarditis, the fatty heart, cardiac palpitation and bradycardia, or from a generally debilitated condition of the system.



The faintness and weakness come from systemic derangement, usually of the blood supply. The patient is weak, listless, and overcome by the least exertion. A "sufferer from heart trouble" is the usual verdict by family and friends.

Where no organic lesion is found, the fainting spells may be combated by treating the general condition of the patient, and by tonic and reconstructive medication the weakness may be overcome by strengthening the general system. Dizziness and fainting spells generally cease as the patient gains in strength and health.

In cases of fainting and general debility Pepto-Mangan (Gude) is

prompt in result as a general tonic and reconstructor. It is an ideal compound for combating weakness and wasting conditions. It increases the appetite, gives tone to the system, and acts as a general reconstructive agent.

#### Silver Nitrate and Peruvian Balsam Ointment in Crural Ulcer.

—The following ointment has given most favorable results when applied to torpid ulcers of the leg. Silver nitrate, 1; balsam of Peru, 20; simple ointment, 300. The application of this ointment generally leads to the rapid dispersion of the ulcer, dries up the suppuration, and causes the rapid appearance of healthy granulation. L. von Hoffer (*Nouveaux Remedes*, 1905).

## Glyco Thymoline



### CATARRHAL CONDITIONS

NASAL, THROAT  
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KRESS & OWEN COMPANY,  
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### THE TREATMENT OF NASAL CATARRH

BY

JOHN A. HALE, M.D.

*Alto Pass, Ill.*

FOR years I used various remedies and met with varying success, until tiring of one remedy after another I relied solely on Potassium Permanganate in weak solutions as a nasal douche, but a review of some points in this paper will show why I always sought for something else. Glyco-Thymoline has usurped the place of the permanganate solution in my armamentarium, and after sufficient trial, established faith, implicit faith, in its specific therapeutics for this condition. A knowledge of its essential constituents and their therapeutic action only tends to strengthen a belief in its specificity. Caution is necessary in the selection and use of remedies, but a fair trial has proven no untoward inconvenience emanating from the use of this remedy. Meanwhile the therapeutic results are gratifying and the good effect of Glyco-Thymoline can be easily verified by a trial, when conclusions will be the result of practical truths only.



"What is genuine shall posterity inherit."—Goethe.

*Not alone on account of originality but true merit*

## HAYDEN'S VIBURNUM COMPOUND

*Has stood the test of time.*

For over one-quarter of a century this valuable remedy has been successfully prescribed in cases of Dysmenorrhœa, Amenorrhœa, Menorrhagia, Metrorrhagia, and as a uterine tonic and sedative in those conditions manifested by neural reflexes. It is not a narcotic and contains no chloral nor dangerous habit-forming drugs. Assure results by insiting upon the genuine H. V. C. when prescribing.

*Literature sent on request and samples if express charges are paid.*

**New York Pharmaceutical Company,**  
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## Holland's <sup>IM-PROVED</sup> Instep Arch Supporter

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*A Positive Relief and Cure for FLAT-FOOT.*

**80%** of Cases treated for Rheumatism, Rheumatic Gout, Rheumatic Arthritis of the Ankle Joint, are Flat-Foot.

The introduction of the improved *Instep Arch Supporter* has caused a revolution in the treatment of *Flat-foot*, obviating as it does the necessity of taking a *plaster cast* of the deformed foot.

The principal orthopedic surgeons and hospitals of England and the United States are using and endorsing these Supporters as superior to all others, owing to the vast improvement of this scientifically constructed appliance over the *heavy, rigid metallic plates* formerly used.

These Supporters are highly recommended by physicians for children who often suffer from *Flat-Foot*, and are treated for weak ankles when such is not the case, but in reality they are suffering from *Flat-foot*.

IN ORDERING SEND SIZE OF SHOE, OR TRACING OF FOOT IS THE BEST GUIDE.

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Faculty of Medicine, Seventy-Fourth Session, 1905 - 1906

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A. E. GARROW, M. D., Lecturer in Surgery and Clinical Surgery.	W. G. M. BYERS, M. D., Lecturer in Ophthalmology and Otolary.
G. GORDON CAMPBELL, B. Sc., M. D., Lecturer in Clinical Medicine.	A. A. ROBERTSON, M. D., Lecturer in Physiology.
W. F. HAMILTON, M. D., Lecturer in Clinical Medicine.	J. R. ROEBUCK, B. A., Lecturer in Chemistry.
D. J. EVANS, M. D., Lecturer in Obstetrics.	J. W. SCANE, M. D., Lecturer in Pharmacology and Therapeutics.
J. W. STERLING, M. B. (Edin.), F. R. C. S., Lecturer in Ophthalmology.	J. A. HENDERSON, M. D., Lecturer in Anatomy.
J. ALKX. HUTCHINSON, M. D., Lecturer in Clinical Surgery.	J. D. CAMERON, B. A., M. D., Lecturer in Gynaecology.
W. W. CHIPMAN, B. A., M. D., F. R. C. S. (Edin.), Lecturer in Gynaecology.	A. A. BRUERE, M. D., Lecturer in Clinical Medicine.
R. A. KERRY, M. D., Lecturer in Pharmacology.	W. M. FISK, M. D., Lecturer in Histology.
S. RIDLEY MacKENZIE, M. D., Lecturer in Clinical Medicine.	H. B. YATES, M. D., Lecturer in Bacteriology.

FELLOWS.

MAUDE E. ABBOTT, B. A., M. D., Fellow in Pathology.

THERE ARE IN ADDITION TO THE ABOVE TWENTY-SIX DEMONSTRATORS AND ASSISTANT DEMONSTRATORS.

The Collegiate Course of the Faculty of Medicine of McGill University begins in 1905, on September 20th, and will continue until the beginning of June, 1906.

**MATRICULATION.**—The matriculation examinations for Entrance to Arts and Medicine are held in June and September of each year. The entrance examinations of the various Canadian Medical Boards are accepted.

**COURSES.**—The **REGULAR COURSE** for the Degree of M. D. C. M. is four sessions of about nine months each.

**SPECIAL COURSES** leading to the Degrees of B. A., M. D., and B. Sc. (Arts); M. D., of six years have been arranged.

**ADVANCED COURSES** are given to graduates and others desiring to pursue special or research work in the Laboratories, and in the Clinical and Pathological Laboratories of the Royal Victoria and Montreal General Hospitals

**A POST-GRADUATE COURSE** is given for Practitioners during June of each year. The course consists of daily lectures and clinics as well as demonstrations in the recent advances in Medicine and Surgery, and laboratory courses in Clinical Bacteriology, Clinical Chemistry, Microscopy, etc.

**DIPLOMAS OF PUBLIC HEALTH.**—A course open to graduates in Medicine and Public Health Officers of from six to twelve months' duration. The course is entirely practical, and includes in addition to Bacteriology and Sanitary Chemistry, a course on Practical Sanitation.

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McGILL MEDICAL FACULTY.

# HALIFAX MEDICAL COLLEGE,

HALIFAX, Nova Scotia.

THIRTY-SEVENTH SESSION, 1905-1906

## THE MEDICAL FACULTY

- ALEX. P. REID, M. D., C. M.; L. R. C. S., Edin.; L. C. P. & S. Can. Emeritus Professor of Medicine.  
 JOHN F. BLACK, M. D., Coll. Phys. and Surg., N. Y., Emeritus Professor of Surgery and Clinical Surgery.  
 H. McD. HENRY, Justice Supreme Court; Emeritus Professor of Medical Jurisprudence.  
 GEORGE L. SINCLAIR, M. D., Coll. Phys. and Surg., N. Y.; M. D., Univ. Hal.; Emeritus Professor of Medicine.  
 JOHN STEWART, M. B., C. M., Edin.; Emeritus Professor of Surgery.  
 DONALD A. CAMPBELL, M. D., C. M.; Dal.; Professor of Medicine and Clinical Medicine.  
 A. W. H. LINDSAY, M. D., C. M.; Dal.; M. B., C. M.; Edin.; Professor of Anatomy.  
 F. W. GODDWIN, M. D., C. M.; Hal. Med. Col.; L. R. C. P.; Lond.; M. R. C. S., Eng.; Professor of Pharmacology and Therapeutics.  
 M. A. CURRY, M. D., Univ. N. Y.; L. M., Dub.; Professor of Obstetrics and Gynaecology and of Clinical Medicine.  
 MURDOCK CHISHOLM, M. D., C. M.; McGill; L. R. C. P., Lond.; Professor of Surgery and of Clinical Surgery.  
 NORMAN F. CUNNINGHAM, M. D., Bell. Hosp. Med. Coll.; Professor of Medicine.  
 G. CARLETON JONES, M. D., C. M., Vind.; M. R. C. S., Eng.; Prof. of Public Health.  
 LOUIS M. SILVER, M. B., C. M., Edin.; Professor of Physiology, Medicine and of Clinical Medicine.  
 C. ICKIE MURRAY, M. B., C. M., Edin.; Professor of Clinical Medicine.  
 GEO. M. CAMPBELL, M. D., C. M., Bell. Hosp. Med. Coll.; Prof. of Pathology and Diseases of Children.  
 W. H. HATTIE, M. D., C. M., McGill; Professor of Medicine.  
 N. E. MCKAY, M. D., C. M., Hal. Med. Col.; M. B., Hal.; M. R. C. S., Eng.; Professor of Surgery, Clinical Surgery and Operative Surgery.  
 M. A. B. SMITH, M. D., Univ. N. Y.; M. D., C. M., Vind., Professor of Clinical Medicine, Applied Therapeutics, Class Instructor in Practical Medicine.  
 C. E. PUTTNER, Ph. M., D. Ph., Hal. Med. Coll.; Lecturer on Practical Materia Medica.  
 THOS. W. WALSH, M. D., Bell. Hosp. Med. Coll.; Adjunct Professor of Obstetrics.  
 A. I. MADER, M. D., C. M., Professor of Clinical Surgery and Class Instructor in Practical Surgery.  
 E. A. KIRKPATRICK, M. D., C. M., McGill, Lecturer on Ophthalmology, Otolaryngology, etc.  
 E. H. LOWERISON, M. D., Lecturer on Ophthalmology, Otolaryngology, etc.  
 JOHN MCKINNON, LL. B., Legal Lecturer on Medical Jurisprudence.  
 THOMAS TRENAMAN, M. D., Col. P. & S., N. Y., Lecturer on Practical Obstetrics.  
 E. V. HOGAN, M. D., C. M., McGill; L. R. C. P. & M. R. C. S., Eng.; Professor of Clinical Surgery and Associate Professor of Surgery.  
 J. A. MCKENZIE, M. D., C. P. S., Boston; Demonstrator of Anatomy.  
 T. J. F. MURPHY, M. D., Bellevue Hospital Medical School, Professor of Clinical Surgery and Lecturer on Applied Anatomy.  
 L. M. MURRAY, M. D., C. M., McGill; Professor of Pathology and Bacteriology.  
 W. B. ALMON, M. D., C. M., Dal.; Lecturer on Medical Jurisprudence and Senior Demonstrator of Anatomy.  
 D. J. G. CAMPBELL, M. D., C. M., Dal.; Demonstrator of Histology.  
 J. J. DOYLE, M. D., C. M., McGill; Junior Demonstrator of Anatomy.  
 J. R. CORSTON, M. D., C. M., Dal.; Junior Demonstrator of Histology.

## EXTRA MURAL LECTURERS.

E. MCKAY, Ph. D., etc., Professor of Chemistry and Botany at Dalhousie College.

..... Lecturer on Botany at Dalhousie College.

..... Lecturer on Zoology at Dalhousie College.

JAMES ROSS, M. D., C. M., McGill, Lecturer on Skin and Genito-Urinary Diseases.

A. S. MACKENZIE, Ph. D.; Prof. of Physics at Dalhousie College.

E. D. FARRELL, M. D., C. M., Dal.; Lecturer on Clinical Surgery

The Thirty-Seventh Session will open on Thursday, August 31st, 1905, and continue for the eight months following.

The College building is admirably suited for the purpose of medical teaching, and is in close proximity to the Victoria General Hospital, the City Alms House and Dalhousie College.

The recent enlargement and improvements at the Victoria General Hospital have increased the clinical facilities, which are now unsurpassed. Every student has ample opportunities for practical work.

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1ST YEAR.—Inorganic Chemistry, Anatomy, Practical Anatomy, Biology, Histology, Medical Physics.

(Pass in Inorganic Chemistry, Biology, Histology and Junior Anatomy.)

2ND YEAR.—Organic Chemistry, Anatomy, Practical Anatomy, Materia Medica, Physiology, Embryology, Pathological Histology, Practical Chemistry, Dispensary, Practical Materia Medica.

(Pass Primary M. D., C. M. examination.)

3RD YEAR.—Surgery, Medicine, Obstetrics, Medical Jurisprudence, Clinical Surgery, Clinical Medicine,

Pathology, Bacteriology, Hospital, Practical Obstetrics, Therapeutics.

(Pass in Medical Jurisprudence, Pathology, Therapeutics.)

4TH YEAR.—Surgery, Medicine, Gynaecology and Diseases of Children, Ophthalmology, Clinical

Medicine, Clinical Surgery, Practical Obstetrics, Hospital, Vaccination, Applied Anatomy.

(Pass Final M. D., C. M. Exam.)

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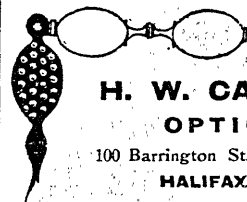
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The regular course of instruction will consist of Four Sessions of eight months each, commencing October 1st.

There will be a distinct and separate course for each of the four years.

The lectures and demonstrations in the subjects of the First and Second years will be given in the Biological, Chemical, Anatomical and Physical Laboratories and lecture-rooms of the University.

Attention is directed to the efficient equipment of the University Laboratories for instruction in the various branches of the Medical Curriculum. The new building of the Medical Faculty has been completed at a cost of \$175,000.00 in the Queen's Park, and affords extensive laboratory accommodation for Pathology and Physiology which is unsurpassed. Didactic Instruction in the final subjects of the Medical Course are taught in the new lecture theatres.

To meet the requirements of the Ontario Medical Council a course of instruction, during the Fifth year will be conducted. This will be entirely optional as far as the University of Toronto is concerned.

Clinical Teaching is given in the Toronto General Hospital, Burnside Lying-in-Hospital, St. Michael's Hospital, Hospital for Sick Children, and other medical charities of Toronto.

There are special Research Scholarships offered to graduates in Medicine, and every opportunity is now afforded for Scientific Research Work in any of the various laboratories of the University, under the direct supervision of the Professor in charge.

The Faculty provide four medals for the graduating class (one gold and three silver). There are also scholarships available for undergraduates in the First and Second Years; these are awarded to the candidates on the results of the annual examinations.

Further information regarding Scholarships, Medals, etc., may be obtained from the Calendar or on application to the Secretary.

**FEES.**—Lectures and demonstrations: 1st year, \$100; 2nd year, \$100; 3rd year, \$100; 4th year, \$100. Registration for Lectures, \$5. Registration for Matriculation, \$7. Annual Examinations, each \$14. For Examination in Practical Chemistry, 50c. For admission *ad eundem statum*, \$10. Degree, \$20. Hospital Perpetual Tickets, \$34. Lying-in-Hospital, \$8.

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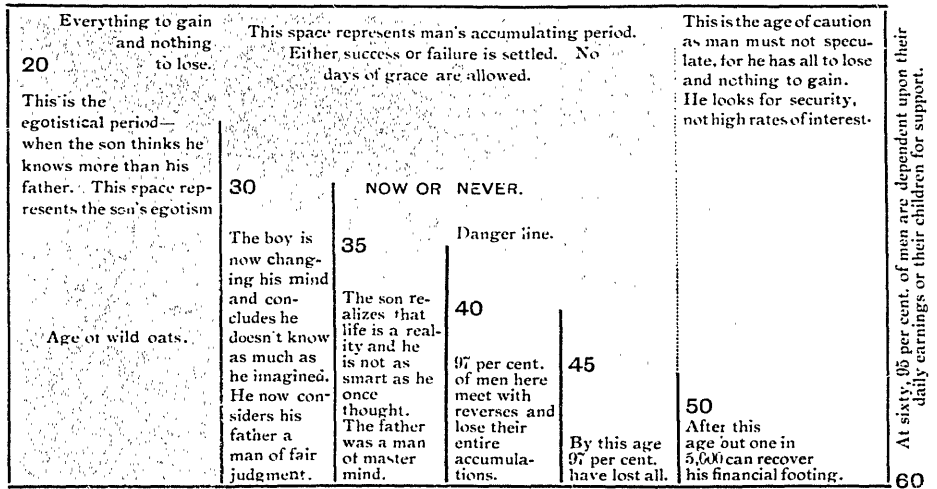
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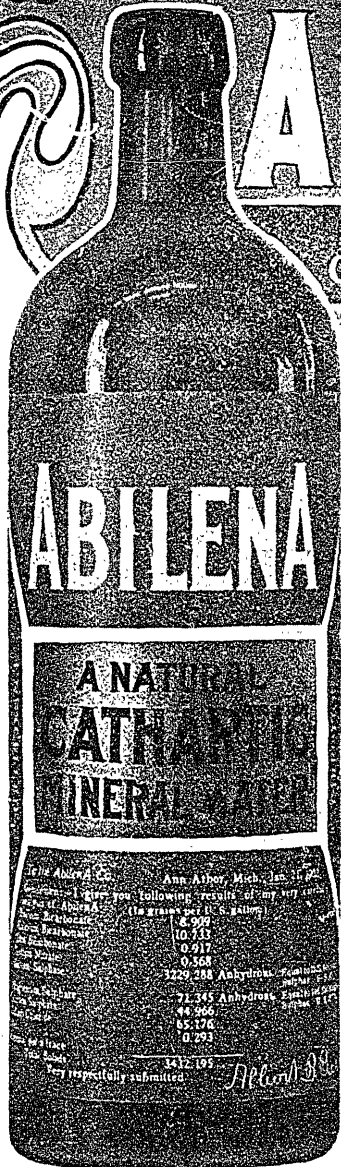
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