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Coronary Artery Thrombosis

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MAKING due allowance for cases unrecognized in the past, this now familiar clinical picture is thought to be on the increase. It is more common in men than in women in the proportion of five to one. While in most cases an arteriosclerotic background is present, the determining causes remain a mystery. The commonest error in the past was to regard the attack as acute indigestion, and a few cases have been diagnosed as an acute surgical abdomen. Laparotomy has been done under this false impression. From the period of too frequent failures to make a correct diagnosis the pendulum has now swung too far, and there is reason to believe that it is now being diagnosed too frequently. It is timely that we should review now the evidence on which a reasonably correct diagnosis is based, and at the same time consider the main points in the management of such cases. Three headings will be used in this discussion.

1. The evidence of coronary artery thrombosis.
2. The history of the development of this evidence.
3. The management of a patient suffering from the disease.

THE EVIDENCE OF CORONARY ARTERY THROMBOSIS.

The presenting symptom is a severe attack of pain in the chest. Without the aid of special instruments a reasonable diagnosis can be made by attention to the following points.

Premonitory signs: Twinges of substernal or brachial pain may be noted for several days previous to the attack and are usually attributed to gastro-intestinal disorders.

Onset of attack: Abrupt and agonizing in character.

Site of pain: Usually substernal, middle third, radiating down both arms up the neck and often referred to upper abdomen. It is sometimes difficult for the patient to localize the pain with accuracy. It is not so definitely left sided as in ordinary angina.

Exertion: Frequently comes on while at rest or even in bed and is not so definitely related to exertion as in ordinary angina.

Restlessness: The patient is restless, walks about to get relief and does not instinctively lie down as in ordinary angina.

Cyanosis: Common and is described as an ashy grey color.

Expression: Anxious.

Dyspnoea: Usually a prominent feature.

Sweating: Common.

Vomiting: Common at onset; rarely repeated; occasional nausea.

Blood pressure: Drops definitely.

Pulse: Rapid, and with some above symptoms constituting a condition of shock.

Temperature: Subnormal at first, followed by a rise on the second and third days.

Leucocytosis: This appears in a few hours and reach 12.000-20.000 This feature is similar to what happens in an infarct of other organs and does. not indicate an infective process.

Arrhythmias: In twenty per cent of cases the pulse becomes irregular due to extrasystoles, auricular fibrillation, auricular flutter or heart block.

Pericardial friction rub: This is noted in twenty per cent of cases and when present is a sign of the highest value.

Heart failure: Death occurs in half the cases and coronary thrombosis is the cause of many sudden deaths. Of those who survive the attack a few develop congestive heart failure and may die in a week or ten days. The remainder recover with more or less damage to the heart.

Physical examination: Apart from signs already mentioned the heart may appear normal. There may be no murmurs, thrills or signs of enlargement.

Subsequent course: The acute pain subsides in a few hours or a few days leaving vague feelings of distress which may persist for weeks or months. After apparent recovery from the attack it will be noted that the patient's tolerance for exertion will be diminished. Many will resume normal activities and live for an indefinite period. Subsequent attacks may occur each adding damage to the myocardium.

A careful attention to the features enumerated will permit of an accurate diagnosis in the majority of cases. Whenever possible the electrocardiogram gives confirmatory proof and in some cases the only proof. The electrocardiographic evidence is briefly as follows.

1. Inversion of the T wave in leads II and III with minor changes in ventricular complex. This is the most common type.

2. Inversion of the T wave in leads I and II. Inversion of the T wave in lead III alone is so common in normal hearts that now it cannot be regarded in evidence. Inversion in lead I alone is very suspicious.

3. Pardee's signs;— a high take-off in lead one with a low take-off in lead III or the opposite, a low take-off in lead I and a high take-off in lead III. This feature is seen soon after the attack and passes into one of the other types.

THE HISTORY OF THE DEVELOPMENT OF THIS EVIDENCE.

In common with other clinical entities coronary thrombosis has come to be a recognizable disorder, not as the result of a single discovery but by the accumulated observations of many minds. The pathologist described coronary infarcts at least sixty years ago. At first it was associated with cases of sudden death. Later healed infarcts were found showing that some cases survived. The idea of recognizing it in the living subject was still unborn. It was the clinicians who were the pioneers and the evidence took on concrete form very slowly. in 1896 Dock diagnosed a case correctly and proved the correctness of his diagnosis at autopsy. In 1912 Herrick reported several cases and emphasized the possibility of clinical recognition. Occasional reports came from other observers in various countries. The real beginning dates from 1918 when Herrick wrote in a more convincing manner, basing his diagnosis on

the character of the pain, associated with shock, arrhythmia and the pericardial friction rub. At the same time he pointed out the changes in the electrocardiogram which are now well established as evidence. In the same year he was supported by animal experimentation in the hands of Smith, who ligated a branch of the coronary artery in a dog and demonstrated the same electrocardiographic changes as Herrick had observed in the living subject. The team work of the clinician, pathologist and experimental research man at last placed the diagnosis on a secure foundation, and all their conclusions have been confirmed by many observers up to the present time. Pardee in 1920 described the electrocardigraphic signs which goes by his name—Pardee's signs, a high or low take-off in the R-T interval.

It may now be said that the diagnosis of coronary thrombosis is made with as great certainty as many other well known diseases. The electrocardiograph has played an important part in revealing important evidence; and while it is still an important aid in diagnosis and in a sense the final court of appeal, it has done something more. It has given us increased confidence in our clinical signs so that for the large number of physicians who have no ready access to this instrument evidence of a very conclusive nature is completely in their hands.

MANAGEMENT OF A PATIENT SUFFERING FROM AN ATTACK.

1. *Relief of pain:*—Morphine in adequate doses should be given. Begin with gr 1/4 and repeat in a short time if necessary. Ether may be used with safety inducing light anaesthesia when the pain is extremely agonizing. Amyl nitrite is useless and probably harmful and should not be used at all.

2. *Absolute rest in bed:*—All factors which disturb physical or mental rest should be eliminated. Four to six weeks may be set down as an arbitrary period of rest in bed. This period may be shortened or lengthened according to the severity of the symptoms. At the end of the rest period resumption of activities should be gradual and advice as to what work can be done or avoided given on the general principles which guide us in other heart defects.

3. *The shock period:*—The question of cardiac stimulation will at once enter the physician's mind. If the blood pressure is not below 100 mm hg stimulation is unnecessary. If below that point with a very weak or imperceptible pulse one of the following remedies may be used, caffiene sodium benzoate, adrenalin or strophanthus intramuscularly. These are in the order of safety. Digitalis should not be given at this stage. In the two weeks following the attack the damaged heart muscle is soft and liable to rupture so that it is not considered good treatment to give digitalis during this period. Later when congestive failure becomes evident it is proper to give digitalis according to recognized schemes.

Diet;—For a few days a simple diet is desirable. At first milk only gradually adding simple foods. After the attack the diet advised in arteriosclerosis is proper and at the present time a low protein diet, and a low total diet would appear to be the best.

Bowels;—May be left alone for 48 hours and then moved with an enema. Later mild laxatives may be used according to wishes of the patient.

Focal infection;—It is by no means certain what part infection plays in the causation of thrombosis but most authorities feel that it is desirable to

remove any obvious focus after the attack has subsided. The above points cover the essentials of treatment in the hands of the majority of physicians. One or two points may still be referred to. For those who believe that such drugs as theophyliin, theobromin or theocin soften the coronary vessels one can say that the patient will not suffer from their administration. In patients who show marked cyanosis in the shock period or later, oxygen may be very useful. In some clinics quinidine is considered a valuable remedy in a complication which is admittedly rare, namely, ventricular fibrillation. The signs of this are a rapid regular pulse of 150 to 200 with occasional dropped beats. Its recognition is difficult and it will probably be the part of wisdom to omit this drug from his scheme unless one has confidence in his ability to recognize the disturbance. My final word of advice is of a negative character; do not give cardiac stimulants one after the other in a panicky manner in the hope that you will hit the mark. You may hit the mark but it may not be the one aimed at.

(4) DIE MEDIZINISCHE WELT,
Dr. Georg Zachariae,
"Therapie der rheumaischen Erkrankungen,"
(Therapy of he rheumaic diseases).

The author gives the following classification of the rheumatic conditions: (1) Inflammatory conditions of muscles, including Myalgia. (2) Rheumatic affection of nerves, especially the enuralgias, and sciatica. (3) Acute rheumatic joint lesions. (4) Chronic diseases of joints—For all these conditions he contends that the primary and essential feature of the treatment should be hot brine baths, preferably sulphurous, at a temperature of 103°F. The chemical dissociation of the salts which occurs allows the free ions to penetrate the skin. After the baths it is essential that the affected parts should be covered with Antiphlogistine.—There is a definitive lowering of blood sugar after the baths, and the blood pressure also falls in consequence of an exertion of histamine bodies by the skin. Precautions must therefore be taken against collapse. As accessory measure mineral water of the Kaiser-Friedrich-Quelle are given the patient to drink daily. Besides other cases, 79% of 124 cases of chronic infective polyarthritis were cured.

Mrs. Gordon (to husband listening to radio Sabbath evening). "Thamas, Thamas, ye manna laugh like that on the Sabbath day.

Thamas. "Laugh, wanan! The minister has just announced a collection and here I am safe at hame."

A Scotchman was run over by a brewery wagon. I'll bet that is the first time the drinks were ever on him.

Well, Doc., you sure kept your promise when you said you would have me walking again in a month."

"Well, well that is fine."

"Yes, I had to sell my car when I got your bill."

Persistent Hiccough

To the Editor of the Bulletin,
Nova Scotia Medical Society.

Dear Sir:—

May I supplement the remarks of Dr. C. M. Bethune in the July BULLETIN on the subject of "Persistent Hiccough". The following note on the treatment of intractable hiccough by rebreathing appeared under "Medical Progress", Clinical Journal, October 28th, 1931. Last year I was confronted by a case of this kind and tried the simple, expenseless method about to be described. The patient was promptly relieved within a minute or two.

In 1924 Prof. Yandell Henderson, when discussing the use of carbon dioxide in resuscitation, mentioned that Sword had found that it controlled post-operative hiccough and saved life, adding that in the strength of 5 to 5.6% it is the best stimulus for increasing the activity of the respiratory centre. In 1927 Sheldon reported a number of cases of hiccough treated at the Massachusetts General Hospital by carbon dioxide inhalation with excellent results. He concluded that "carbon dioxide in proper strength will control hiccough during administration and for a varying period thereafter; in some cases there will be no recurrence."

L. A. Golden (New England Med. Journ., 1931, i.p. 1183) points out that this valuable treatment is not adopted as extensively as it should be, because of the mistaken idea that expensive apparatus is necessary, and that the following simple method is quite effective: An ordinary paper bag of medium size and strength such as is used by shopkeepers is placed over the patient's face, and held so that it tightly encloses the mouth and nose. The patient is instructed to breath into the bag. The oxygen in the bag is replaced as the exhaled carbon dioxide accumulates, so that in some minutes the saturation of carbon dioxide is enough to produce a therapeutic effect. Six cases were treated by this simple method. In one the hiccough had been continuous for two days, prevented sleeping and eating, and had produced soreness in the abdomen and chest muscles. Rebreathing checked the hiccough in 4 minutes and the patient was relieved without relapse. The other four cases were of shorter duration. All but one were relieved in 3 to 6 minutes. One patient had recurrence after several hours, which he relieved at home easily by the same method.

Yours truly,

H. W. SCHWARTZ.

Readers will appreciate this simple technique for employing the principle of CO_2 treatment in this distressing condition. Thank you Dr. Schwartz. Ed.

Historical Section

The Medical Literature of France

J. H. GARRISON, M.D.

(Continued from the July Bulletin)

IN the 18th century, the centre of surgical teaching and practice was Paris to which even Frederick the Great sent junior medical officers for training. The successive steps in this development were three, viz:

The surgeon Felix, having repaired the fistula in ano of Louis XIV, was ennobled by the king, who created for his successor Mareschal five surgical chairs in the College de Saint Come (1724). Enraged, the Paris Medical Faculty bombarded the doors of Saint Come in bitter cold weather, but were driven away by the angered populace, who had lost all respect for their furs and costly red robes. Next came the foundation of the Academie de Chirurgie by Mareschal and La Peyronie of Montpellier and its first meeting on December 18th, 1731. Finally, at the instance of La Peyronie, Louis XV, in a decree of 1743, freed the surgeons from the barbers by forbidding the latter to practice, since no one could be master of surgery henceforth without the degree of master of arts.

This was the French surgeon's Declaration of Independance, guaranteed by a firm footing of preliminary training and scientific instruction and comparable only with what John Hunter did for the locus standi of the English surgeon as Surgeon General of the British Army. The French surgeon, from Dionis to Desault, was now to be a well educated, self-respecting man, fitted to write upon his subject with precision and concision. Laplace even proposed that medical men be admitted to the Academy of Sciences, "so that they could associate with scientific men" (afin qu'ils se trouvent avec des savants).

The 18th centurv was remarkable for a swarm of descriptions of new diseases, in which regard it was only to be surpassed by the clinical output of the 19th...

Thus in the 18th century, there was everywhere a remarkable versatality in medical achievement. More and better work was done than formerly, due, perhaps, to the fact that the period before the Revolution was relatively quiescent. After thirty years of warfare between two bankruptcies, the foreign policy of France under Louis XV and his minister Fleury was to cultivate masterly inactivity, lie doggo and let the other fellow do the fighting, until Pompadour involved France in the Seven Years' War with Frederick the Great. As with Spain in the same period, the consequence of this faire la guerre policy was the loss of all the colonies and the dominance of the Anglo-Saxon in North America. Contributions to medicine were made even by laymen in this period.

Apart from the light-footed irony of Fontenelle and Molière, clowning about medicine, is as a rule, deadly in its dullness, for the sufficient reason that, whatever the antics of doctors, medicine, as dealing with disease, injury and death, is not, in itself, a funny subject.

The Revolution and the Napoleonic Wars meant not only the break up

of the social order, but also a release of energies at the time unpredictable. A chronologic arrangement of French literature, from the Atala of Chateaubriand (1801) to the end of the century, each year dating a classic, illustrates this carrière ouvert aux talens, just as the literature of the 20th century, illustrates, year by year, the gradual decadence and decomposition of the old order of things before the World War. A chronology of French medical achievement, corresponding with these entries from 1801 to 1932, is so extensive and complex that to attempt to give any account of it would be bewildering. One can only indicate the broad general outlines and trends of development. While Chateaubriand is publishing Atala (1801) and the Génie du Christianisme (1803), Pinel issues his classic on insanity, Bichat starts an epoch with his books on the descriptive anatomy of the tissues and membranes, Dupuytren founds the Sociétè anatomique de Paris, the Bulletin of which has to this day remained the repository of French pathology. From this time on until the middle of the 19th century, Paris remains the world centre of medical teaching. The clinical medicine of the future is made in the Paris Faculty, holding its own, along with the surgical tradition of the 18th century, until the Franco-Prussian War and well beyond it. The changes apparent through the different decades are these. During the romantic literary period, which dates back to the Paul et Virginie of Saint Pierre (1798), the period of Mme. de Stael, Benjamin Constant, Lamartine and Alfred de Vigny, the leaders of French medicine are Corvisart, Bretonneau of Tours, the two Breton clinicians, Laennec and Broussais, who with Louis, Andral, Chomel, Piorry, Bouillaud are to be the teachers of many outstanding physicians of England and our own Eastern cities. Along with these Bichat, the physiologists Flourens and Magendie, Napoleon's army surgeon Larrey, Dupuytren, Boyer, Lisfranc and Nélaton. The July Revolution of 1830 ends the Romantic movement. Spengler signalizes the appearance of Le Rouge et le Noir of Stendhal, in 1830, as a turning point in European literature, although Stendhal shrewdly observed: "I shall be appreciated toward the year 1900." Be that as it may, the mild, sentimental species of romantics give place to more picturesque and self assertive types, such as Dumas père, Victor Hugo, Gautier, Banville, Musset and Balzac; but while Broussais is still going strong, albeit to empty benches, Laennec gives place to Trousseau, the tyrannic Dupuytren to Nélation and Malgaigne, and there is no particular change until the middle of the century, when Trousseau becomes clinical overlord of the Hôtel Dieu and Pasteur and Claude Bernard begin the new epoch of experimental medicine. In 1839, when de Tocqueville is finishing his Democracy, Stendhal publishing La Chartreuse de Parme and Merimee just beginning Colomba, Bouillaud is working on rheumatic affections of the heart, Cruveilhier on his great atlas of pathology, Cuvier on his Animal Kingdom, Gavarret on medical statistics and Poiseuille on another new departure, the viscosity of the blood. Through the late forties and the fifties, Claude Bernard and Brown Sequard are experimenting on the foundations of endocrinology, Duchenne is founding a peerless neurological tradition, which is to last unto the team-work of the Salpêtrière group during the World War, long after the great clinical tradition of Laennec and Louis had died out. Pasteur and Claude Bernard dominate the scene to the end of their lives. In 1857, when Flaubert publishes Mme. Bovary and Baudelaire, Les Fleurs du Mal, Bernard has demonstrated the glycogenic function of the liver and Pasteur his views on fermentation. In

1862, Victor Hugo publishes Les Misérables and Flaubert Salammbo, while Charcot takes charge of the Salpetriere, Paul Broca demonstrates motor aphasia, Koeberle performs ovariotomy in Strassburg, Pasteur works on spontaneous generation, Daremburg, Chereau, Meniere, Raynard are very active in the history of medicine and Littre prepares the first volume of his Dictionary of the French language, completed in 1872. In 1871, Zola begins the Rougon-Macquart series, and now we have a new school of writers, the Goncourts, Barbey d'Aurevilly, Villiers de I'Isle Adam, Rimbaud, Paul Verlaine, Maupassant, Bourget, Henri Becque, Loti, tending toward the ultra-realistic or the fantastic. To the end, Charcot is the exotic dominating figure. The clinical output is mainly neurological. Laveran discovers the parasite of malarial fever, Fournier's clinic has become a world center for venereal diseases, Pasteur has become a virtual physician through his preventive inoculations against anthrax and hydrophobia and the medico-historical tradition is still active in spots. Toward the end of the century Zola publishes La Devâcle (1895), and we have Curel, Bergson, Barres, Rostand, Brieux, Andre Gide, Jules Romains, Anatole France, who hold their own through the relative mediocrity of the 20th century. On the eve of the War, Proust publishes Du cote de chez Schwann (1913), signalizing a new trend. French neurology retains its splendor through the war, two able physiologists are prominent, Gley and Charles Richer, author of L'homme stupide, and during the war period, the surgeons Tuffier, Morestin, Leriche, Lecene and Carrel.

Stendhal said: "To be a good philospher, one must be clear, dry, without illusion. A successful banker has part of the equipment necessary to make discoveries in philosphy, namely to see things exactly as they are." In other words, the dry, factual, impersonal manner of an official or military report, which Stendhal imported into the writing of imaginative fiction, was the norm to which scientific and medical literature had been tending for centuries, even as consecutive thought among prehistoric and primitive savages had to wait upon the development of speech and the organization of language. Where La Rochefoucauld, Vauvenargues, Chamfort or Joubert could say more in a single sentence than whole stodgy volumes of duller men, so were the older medical writers apt to be "inebriated by the exuberance of their own verboisty," to the extent of being unreadable. Even Bichat, whose inspiring effect upon his generation has been eloquently commemorated by George Eliot in Middlemarch, was too diffuse, in consequence of his furious ardor to accomplish all he could in the face of approaching death. Laennec, the impetuous, ebullient Breton, who lectured in Latin on occasion for the benefit of foreign students, was sometimes intemperate and unjust in denouncing the opponents of the stethoscope (mediate auscultation), but could write with beautiful precision. He likened his bitter Breton rival, Broussais, to Paracelsus, on account of his inarticulate gropings toward a true theory of disease. Laennec has been characterized by Mauriac as nearer to Pascal or Pasteur than to Descartes or Claude Bernard:

"I attach no importance to this observation, which may be erroneous. It seemed to be as I have recorded it, but a phenomenon of this kind is not evident enough to be registered as an accurate statement of fact."

"The observer should be scrupulous in his assertions. A single error in the physical sciences can drive many into a blind alley, to be corrected later by years and volumes of research only."

Laennec regarded hypotheses as

"The mere scaffolding of science, to be utilized as an algebraic x", but not as a Procrustean bed, and constantly warns his pupils to be on their guard against "the errors which constantly arise from the observer's inexperience, from the day to day inequalities of his aptitude, the illusions of his senses and the difficulties inherent in the method of observation he employs."

Claude Bernard, on the other hand, was like Littré, a follower of Auguste Comte. The same cold positivism which makes the poems of Littre seem like the traceries of hoar-frost led Bernard into the colossal error of his career, his denial of the role of microorganisms in fermentation. At the same time, Bernard's positivism engendered such terse and luminous apperceptions as these:

"Observation is a passive, science, experimentation an active science."

"A discovery is an unforeseen relation not confirmed in theory, for otherwise it would have been foreseen."

"In science, the thing is to modify and change our ideals as real knowledge advances."

"True science teaches us to doubt, and, in ignorance, to refrain."

Charcot has the right clinical approach when he says that:

"In the last analysis we see only what we are prepared to see, what we have been taught to see," when he inquires "how it is that one fine morning Duchenne discovered a disease that probably existed in the time of Hippocrates," and goes on to explain that new facts always leave us cold, "because our minds have to take in something which deranges the original order of our ideas, but we are all of us like that in this miserable world."

Of modern medical literature of a readable character, one might recommend in brief:

The Memoires de medicine militaire (1812) of Larrey, the Correspondence of Bretonneau with his pupils Velpeau and Trousseau, edited by Paul Triaire, Trousseau's own Clinique medicale de l'Hôtel Dieu, Claude Bernard's Introduction a la medicine experimentale, Charcot's Lecons du Mardi, the contributions on medical art in the Nouvelle Iconographie de la Salpetriere, the witty biographical sketches in Nos grands medecins by Horace Bianchon, otherwise Maurice de Fleury, L'homme stupide ("Idiot Man") by that original physiologist, Charles Richet, and the acute criticisms of modern medicine by Pierre Mauriac in Aux confins de la medicine (1926) and Nouvelles recontres (1930).

Scores of cultivated French physicians have written vers de société, but the serious poetic output of medical men, as evidenced by Le Parnasse médicale français (1874) of Chéreau, is mediocre. A solitary exception would be Henri Cazalis (1840-1909), who was called l'Hindou du Parnasse contemporain, on account of his predilection for Oriental themes and resembles Leconte de Lisle in his pessimistic tendency (Livre du néant, Melancolia). He translated the Song of Songs and the quatrains of al-Gazali. The number of recent novels and plays about medicine and by medical men is legion. I know of only two French medical plays of consequence; L'epidémie of Octabe Mirbeau and Jules Romains' Knock, and, in both, the satire is transferred from the doctor to the patient and the public. Andre Couvreur, a graduate of the Paris Medical Faculty, has published a long row of medical novels, the most amusing of which is Caresco le surhomme, a satire on the gynecologist Pozzi, and the outsoern mania for cutting out women's ovaries by the thousand.

With the publication of Littré's bilingual Hippocrates (1839-61) and of Malgaigne's three volume edition of Paré (1840), there began a steady outflow

of serious investigation in the history of medicine, which continued through the seventies, with a second upthrust in the nineties.

The most salient trait of French medicine. by and large, would appear to be the extraordinary versatility of the many physicians who have taken up scientific, literary and artistic pursuits as hobbies, and, by the same token, the tendency of such men to drop one scientific problem for another, with no apparent regard for the potentialities of a worthwhile theme. In this group would naturally fall the physicians listed by Cabanes as les evades de la medicine, doctors who have abandoned medicine for some other calling. In science, the versatile men, the explorers of untried fields were classed by Ostwald as Romanticists, those who never turn out a finished product, but leave behind them many loose ends for others to follow up and complete. One cannot blame Petit or Mestivier, for instance, if they did not repeat their risky operations on the mastoid (1736) or the appendix (1759), nor Baliarger if his clear perception of manic-depressive insanity as folie a double forme (1853-4), had to wait half a century for the conclusive synthesis of Kraepelin. But what of Dutrochet who made a clear statement of the cell theory (1824), fourteen years before Schleiden and Schwann (1838-9) and of osmosis (1827-35) at least nineteen vears before Graham (1854)? An examination of the vast output of this gifted investigator reveals the fact that. during the years of his scientific activity, Dutrochet was constantly switching from one important line of investigation to another and so failed to duplicate the advance he had made in osmosis or even to demonstrate his reasoning about the cell doctrine. which was more accurate, in its time, than that of either Schleiden or Schwann. The great men of science in any country, however, are those who, like Pare or Laennec or Pasteur or Bernard, have displayed good generalship in developing a line of thought to its ultimate consequences.

(Editorial from the *Bulletin of the New York Academy of Medicine.*)

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The following communication from the General Secretary of the Canadian Medical Association is published in the BULLETIN in order to give all members of the Medical Society of Nova Scotia an opportunity to consider the question of medical relief. Final action on this letter will be taken at the annual meeting. In the meantime the President will welcome any opinions submitted.

184 College Street,
Toronto 2,
June 28th, 1933.

Doctor K. A. MACKENZIE,
President, Nova Scotia Medical Association,
89 Spring Garden Road,
Halifax, Nova Scotia.

DEAR DOCTOR MACKENZIE,

Re Medical Relief

On the occasion of the sixty-fourth annual meeting of the Canadian Medical Association held in Saint John during the week of June 18th, the Council of the Association gave considerable thought and discussion to the question of medical relief, or the distribution of medical services to those people in Canada who, due to the present depression, are unable to pay for same. Finally, the discussion was crystallized by the following resolution which was referred to the Executive Committee for action:—

> "That the problem of medical relief which in the present national emergency is most pressing, be made the subject of immediate consideration by the in-coming Executive Committee which is authorized to co-opt the President of each Provincial Medical Association, to the end that early and suitable representations may be made to the Government of Canada upon the subject, the object being to obtain recognition of the principle that federal relief grants may be applied as necessary to the provision of medical care."

This matter received very careful consideration by the Executive Committee, the following being the Minute reference the decision arrived at:—

> 1—That the President, Dr. Addy, the President-Elect, Dr. J. S. McEachern, the Chairman of Council, Dr. Bazin, and the General Secretary, be authorized to go to Ottawa

to make representations to the Prime Minister, at the first opportunity after his return to Ottawa, reporting the decision of the Association at this annual meeting with respect to medical relief.

2—That, prior to going to Ottawa, a letter be sent to the Provincial Medical Associations, advising them of the resolution passed by Council; and that each Provincial Association be asked to supply the Executive Committee with an official communication, indicating their support of this resolution, in order that this may be tabled with the Prime Minister, and also indicating that the resolution has the endorsation of the Government of the Province.

3—In the event that all of the provinces do not endorse this resolution as passed by Council, the delegation will go to Ottawa representing those provinces which have endorsed it.

4—Should any Provincial Association desire to augment the delegation by sending its President or other representative, the delegation will heartily welcome additional members.

It was then duly moved, seconded and agreed that the decision of the Executive Committee, as expressed in the above memorandum, be approved.

I now write to you as President of the Nova Scotia Medical Association, and would appreciate it if you would send to me, at your earliest convenience, the following:—

1—A statement indicating that your Provincial Association is in entire sympathy with the proposed step. (Of course, if you are not in sympathy with it, you will no doubt so advise me).

2—A statement clearly indicating that your Provincial Government is in favour of a portion of federal relief moneys being expended for medical care. If this statement could be made over the signature of the Prime Minister or Minister of Health, so much the better.

3—Will your Association desire to be represented by its President, (or, failing the President, some other delegate) when the delegation waits upon the Honourable Prime Minister of Canada?

4—Any additional information or suggestions bearing upon this vital question, which your Association desires to submit, will be gladly received. It is most essential that, when we go to Ottawa, we shall have a clear cut mandate from the profession and also from the Provincial Governments that what is being asked for is desired throughout the country as a whole.

You, of course, appreciate that, in taking this action, the Canadian Medical Association is doing so upon the strongest possible recommendations from its provincial branches, as expressed by the delegates to the Council of the Association. It is expected that each Provincial Association, recognizing the importance of this matter, will see that it is given early and complete attention.

Anticipating your co-operation, I am,

Yours faithfully,

T. C. ROUTLEY,
General Secretary.

CASE REPORTS

EDITOR'S NOTE: For the case-reports of this number we are indebted to the Staff of the Grace Maternity Hospital. This is another set of "Group" reports, and while we welcome them as such, we would reiterate that we would welcome as heartily similar reports from men who have no group affiliation. This word is given because it has been suggested that only such group reports are required. Nothing is further from the truth.

EDITOR.

Bin-ovular Twins, Double Placenta Praevia

Case reports of Mrs. Wm. B. in two successive labors.

First Case. Age 41. *Para. IX.* Patient seen in consultation with Dr. W. P. Mackasey at Grace Hospital, August 25th, 1923. Her pregnancy was estimated to be practically at term. There was a history of some "Spotting' for the preceding two weeks. Rather free bleeding had started twenty-four hours before her admission. Her general condition, however, was still quite good. The pulse rate was 88, and her color was not at all bad. Rectal examination revealed the presence of a central placenta praevia, with commencing dilatation of the os. The usual abdominal examination was not done. Caesarian Section was advised and done by the clasical method. On opening the uterus bin-ovular twins were found with double placenta praevia. One placenta was central with the edge of the other coming down to meet it. The twins (both male) weigned 5 lbs. and 4 lbs. 10 ozs. Both were in good condition and did well. The mother had a satisfactory and a febrile convalescence. She was discharged on Sept. 8th.

Antepartum Diagnosis of Congenital Heart Block

Second Case. The same patient was re-admitted this time as a public ward patient at 6 p. m. on Dec. 29th, 1925. She was in labor when admitted, the pains having started at 3 p. m. that day. The membranes had not ruptured. She had not reported to the Clinic for pre-natal examination. The history of the pregnancy was not suggestive of any abnormality. On examination the foetus was found to be presenting by the Vertex in the R. O. A. position. On listening to the foetal heart it was found to be irregular in an unusual way. After from four to eight regular beats a prolonged pause was to be noted. This pause was so long and so definite that it strongly suggested a condition of heart bloc. A student who was present, and who had never previously listened to a foetal heart, was able to note the dropped beat (Dr. D. R. Chisholm of the class of 1927). Labor was terminated by a low forceps delivery at 11.18 p. m. The child when born was not quite the ordinary "blue baby". The color might better be described as a prune color. The face was congested. The eyes were slanting, prominent and turgid looking. The muscle tone was poor. The weight was not taken until three days later when it was 4 lbs. 13 ozs. The foetal heart auscultated immediately after birth revealed the same odd irregularity. The following morning, Dr. K. A. MacKenzie (Professor of Medicine, Dalhousie University Medical School) saw the baby in consul-

tation and made a definite diagnosis of congenital heart bloc. The progress in hospital was fairly satisfactory. On discharge on Jan. 11th its weight was 5 lbs. 3 ozs. The turgid appearance of the face and eyes was still present and the heart irregularity was still to be noted. In early June 1926, Dr. L. M. Murray of Toronto was visiting Halifax and expressed a desire to see the child, which was arranged. It was found in practically a dying condition, extremely wasted, pale, very rapid and laboured respirations and a history of vomiting. Dr. Murray confirmed the previous diagnosis. Death occurred within a few days after Dr. Murray's visit. Permission was obtained for an autopsy and the heart was removed for careful examination. Report by Dr. R. P. Smith, Pathologist of Dalhousie University is appended.

This case was referred to by Dr. MacKenzie in his paper at the Canadian Medical Association Meeting in Toronto last year, and again at Saint John this year.

This specimen is preserved in the Museum at the Pathological Institute.

Pathological Report

The heart was received from Dr. Maclellan with the pericardial covering intact.

The heart is enlarged to some extent from hypertrophy of the right auricle and ventricle, especially the latter, and shows a communication between both auricles (a patent foramen ovale). The foramen had an oval shape with rounded edges when viewed from the right side and measured 3/8 ins. x 1/8 ins. On the left side the usual overhanging flap-like valvular arrangement with crescentic margin was present. The valves and chambers were otherwise normal as well as the pulmonary vessels and aorta. There was no pulmonary stenosis but attached to the pulmonary artery was the remains of the stenosed and obliterated ductus arteriosus. No other deficiency in the interauricular septum, the pars membranacea, or interventricular septum was detected.

The interesting feature in this case is the presence of a condition of partial heart-block which was recognized both antenatally and post-natally, indicating some interference with the conducting mechanism of the heart.

From the history this would appear to be due to some congenital deficiency or malformation of the auriculo-ventricular bundle (Bundle of His) as this lies in close proximity to the opening of the foramen ovale, with interference of propagate impulses transmitted to it from the sino-auricular and auriculo-ventricular nodes respectively.

In consequence of mal-development of the conducting fibres, an intermittent stoppage of impulses and a condition of partial heart-block would ensue.

As far as the author is aware no similar case of congenital heart has been recorded ante-natally and subsequently confirmed by post-mortem. It is possible that the foramen ovale is only another manifestation of a congenital abnormality in this case and is not associated directly with the condition of the Bundle of His.

(Sgd.) R. P. SMITH.

E. K. MACLELLAN.

Case I. **Contraction Ring.**

Miss B. Age 19. Primipara.

This case went into labor with a pre-natal diagnosis made on two occasions of R. O. A. Her measurements were, interspinous 9½ ins., interosstal 10½ ins.

external conjugate 8 ins. The Kahn was negative but "organisms resembling gonococci" were found in the cervical smear.

She went into labor at 11 p. m. on July 10 and continued to have good pains, which were relieved as she got tired with sedatives, until 8 p. m. on July 12, when the membranes ruptured and I made an examination under anasthetic in order to determine why labor was being delayed in the presence of good contractions. At this time the cervix was about fully dilated, although the anterior lip had not been completely taken up. With the ordinary bimanual examination, two fingers in vagina, no cause for the delay could be made out. There was certainly no disproportion, and the head seemed to have plenty of room in the pelvis.

A hand was then pushed up into the uterus. It was then found that above the head and below the shoulders there was a definite, firm muscular ring gripping the latter fairly strongly. Forceps were applied to the head, but the exhibition of reasonable force failed to bring it down. A low Caesarian section was then done, with a transverse incision through the greatly thinned lower uterine segment. The head was delivered quite easily with small forceps but on attempting to remove the rest of the baby the contraction ring, below which my incision was made, continued to grip the shoulders. It was necessary to stretch this—a manoeuvre that required some force,—before the baby could be fully delivered.

The convalescence was marred by a temperature that rose to 103 F. on the 3rd. day and did not drop until the 10th. I felt that it was accounted for by the Neisserian infection which was present.

This case illustrates one of the advantages of the low Caesarian section in a failed forceps. With a classical operation here I might have had a serious perhaps fatal infection, but with the walling off that can be done in this type of operation, the incision through non-contractile muscle tissue, and the ease with which the incision in the uterus can be completely and thoroughly peritonealized infection is considerably minimized. In fact, I am so pleased with the results of the low Caesarian operation that I do it as a routine in preference to the high. Its advantages certainly out-weigh its difficulties of technique.

Case II. **Eclampsia.**

Mrs. McK. Age 20, primipara.

This patient, who presented no untoward symptoms, was delivered outside the hospital. Fifteen minutes later she had a typical eclamptic fit and during the course of the few hours prior to admission had in all a dozen such fits. She was admitted in one of this, and when it passed off was deeply comatose with heavy, stertorous breathing. On admission her blood pressure was 118/70, pulse 128, temp. 102. Her urine contained albumin 4-plus, granular casts and pus cells.

I considered her a grave case.

She was given 10 grs. of sodium amytal dissolved in 10cc. of distilled water intravenously, and no other treatment. She had no more fits after the injection but continued in coma throughout the following day, when her temp. rose to 105, her pulse to 148 and her respirations to 40. On the third day her temp. and pulse settled down somewhat and she became restless, requiring a

quarter of a grain of morphia to quiet her. On the fourth day, though still restless, she was able to drink and was given Magn. sulph. Oz 3, Ext. Cascara drs. 3 in a single draught, and all the water, sweetened with glucose, she would take. The magn sulph and cascara were repeated the following morning and on the fifth day she had several profuse bowel movements, and regained consciousness. She left hospital on the 12th. day with a normal blood pressure, but with a trace of albumin remaining in the urine.

This is the sixth consecutive case of eclampsia I have treated with sodium amytal intravenously. In none of the cases has there been a recurrence of convulsions after the injection, and in none of the cases have any other methods of medication been used before consciousness was returning except one. In this exception the patient was bled 30 ozs. of blood on account of the high blood pressure and the embarrassment of the right heart. One precaution has to be observed when injecting sodium amytal intravenously: the injection should take 10 minutes—one minute to each cc. of the solution.

H. B. ATLEE.

Atresia of Vagina; Pregnancy; Rupture of Uterus.

First Case.

Mrs. W. W., age 39, after several hours of short infrequent pains fell into violent labor at about 5.30 p. m., July 22, 1933. Dr. MacIntosh was called at 6 p. m., his first call to the case (her family physician was absent from the city) and found on examination that violent and long sustained uterine contractions were then present. Vaginal examination a few minutes later disclosed a very marked and unusual condition. The examining finger entered only about one and a half inch. No cervix, os, or opening could be palpated. The impression conveyed was that the lateral vaginal walls had become closely approximated and were sealed in that position.

At 6.30 in consultation with Dr. Morton an immediate Caesarean section was decided upon and the patient removed to Grace Maternity Hospital.

The family history is irrelevant.

The personal history is as follows:

Patient had eight previous pregnancies, six of which produced living children and two resulting in abortions. Labor was normal in all full term pregnancies—no instrument cases. The oldest child is 21 years of age and the youngest is 27 months.

The last abortion (which may or may not have some relation to the subsequent vaginal obstruction) occurred at about six weeks, in March, 1932. Three weeks later, suffering from profuse uterine haemorrhage, following previous irregular bleeding, she was admitted to the Victoria General Hosital. The operation record shows that some retained products of conception were removed and recovery was entirely satisfactory. The patient states that dyspareumia first was noted following this operation, but that menstruation was normal in time and flow until she again became pregnant.

Meeting the case next in the operating room, we find that she has made the significant statement that just before reaching the hospital she had a sharp tearing pain in the abdomen "as if something had given way."

Operation—7.10 *P. M.*—Drs. Morton and MacIntosh.

Anaesthetist—Dr. Minshull.

The abdomen was opened in the mid line. A ruptured uterus was found. An apparently fully developed foetus (dead) was removed from the abdominal cavity. The placenta and membranes were removed from the uterus and an attempt made to repair the rupture. This attempt was soon abandoned because of the extent of the tear and the presence of a fairly large fibro-myoma anteriorly and a smaller one posteriorly. Sub-total hysterectomy was now performed. No attempt was made to save tubes or ovaries as even the saving of the left ovary (laceration was on right side) would have delayed the operation and no delay was justifiable. An opening was made into vagina for drainage purposes.

Pituitrin ½ cc. was given as soon as the membranes were removed from the uterus (we are thankful to say she had received none previously) and intravenous saline was started as soon as the bleeding was controlled.

The patient left the operating room in fair condition. Convalescence was not eventful and recovery was satisfactory.

Conclusion: This case history is presented because of the unusual features involved. While we believe the vaginal obstruction was produced by the formation of adhesions, we are not prepared to state how, when or why they occurred. It is obvious that unless a small opening remained to connect the os with the vaginal orifice that the condition must have occurred or become more pronounced following her last conception. Another striking feature of this case was that while shock was very definite it was not by any means comparable to the text book picture.

We have, neither of us, met a similar case, and we trust the superstition that such oddities travel in groups of three is no longer operative.

Congenital Obstruction of the Duodenum.

Second Case.

Mrs. W. R., age 27, was delivered of an apparently normal child on September 5, 1932, Dr. MacIntosh attending. The pre-natal course was entirely uneventful. Presentation was normal and delivery occurred without instrumental aid.

The family and personal history of the parents is normal. Father and mother are well developed and healthy and mentally alert. Two previous children born to them are strong and well. There is no history of miscarriages.

It was noted a few hours after birth that the infant made no effort to nurse. Sterile water was given on a number of occasions, but was invariably vomited. On the morning of the third day milk having appeared in the mother's breasts was expressed and fed to the child on several occasions. This produced projectile vomiting in each case, the vomitus being deeply stained with bile. Meconium was passed on several occasions and rectal examination was negative. The infant was now markedly jaundiced.

Sept. 8, 1932. In consultation with Dr. Morton a tentative diagnosis of obstruction of the Duodenum was made. The obstruction was presumed to be below the ampulla of Vater because of the jaundice and the large amount of bile in the vomitus. Patient was sent to Childrens' Hospital.

Operation record. The abdomen was opened at 8.45 a. m., Sept. 9, 1932. A membrane comparable to a Jackson's membrane was found, completely

obstructing the Duodenum and extending from just below the Ampulla of Vater downward to the jejunum. The bowel below the obstruction was described as having about the same diameter as an earth-worm. The adhesions were released, after which the bowel below showed some distension. The abdomen was closed and the patient returned to the ward. The case terminated fatally at 1.25 p. m.

Comment: Exploratory operation offered the only hope in this case, and in view of the pathology found, the hope of any operative procedure proving successful was negligible. We are indebted to Dr. P. Weatherbee and the Childrens' Hospital for the data re the operative findings.

C. S. MORTON.
J. W. MACINTOSH.

Care of Premature Infants.

The following are two cases of Premature Infants. They are interesting in that both are below three pounds, the weight which is usually given as the minimum for a viable child.

(1) The mother was brought into hospital in labor. Obstetrical history showed her pregnancy to have dated from the previous July, six and one-half months before admission. Taken to the case room, having severe pains she expelled the foetus, placenta and intact membranes. The foetus was removed from the sac and given treatment. Hot bath, cutaneous stimluation and artificial respiration were used with success and the infant removed to the nursery.

The patient was a well-formed infant showing the usual signs of prematurity. Weight 1 lb. 12¾ ozs. Length 11½ ins. Skin in good condition, considerable amount of lanuago was present, almost complete absence of subcutaneous fat causing the skin to lie in folds. Color was high with a cyanotic tinge. No jaundice. Temperature 97.5F.

The child was oiled, dressed and placed in the premature incubator. Feedings were started four hours after birth.

Corn Syrup, 1 teaspoonful
Water, 4 ounces—q. 1. h.
1 teaspoonful by dropper.

The following day a dried milk preparation, two teaspoonful to four ounces water was given. This was fed two drams hourly by gavage. In a few days the mother's breasts were pumped and the breast milk diluted with one-third water was given in the same amount. These feedings were continued for five weeks gradually increasing until at that time the infant was taking 4 drams every hour. Feedings were gradually increased and the time interval lengthened until at 2½ months the child was taking 1 oz. q. 2. h. The gavage was gradually discontinued and the Breck feeder substituted.

There was only a very small initial loss of weight and the weight showed a constant gain of about two ounces weekly. The patient was kept in the incubator for four months. Discharged at 4½ months with a weight of 6.6 oz.

(2) A well-formed female infant admitted ½ hour after birth. The mother's obstetrical history was suggestive as she had had two stillborns and one non-viable premature previously. The infant weighed 2:6 oz. and was

13 ins. in length. The usual signs of prematurity were present. According to the obstetrical history the child was born at the end of the 32nd week. Temperature 97F.

The infant was wrapped in an absorbent jacket and placed in a heated bed. The temperature rose to normal in twelve hours and has remained normal. Feedings by gavage were given at once. For the first 36 hours 5% Glucose 1 dram hourly. Following this, as breast milk could not be obtained, dried milk 3 teaspoonsful to 2 ozs. water, feeding two teaspoonsful q. 1. h. were given. This was increased in 48 hours to four teaspoonsful.

The infant has gained weight, the cry is more lusty, breathing more regular and movement stronger. Should improvement continue the prognosis will be very good.

Prematurity and its management where no pathological factors are present calls for the utmost resource in management by the physician and the most constant care and attention by the nurse. Any child born before the end of normal term is, strictly speaking, premature but for practical purposes we are concerned more by the condition of the infant at birth regardless of time in utero. Naturally the younger the fetus when leaving the uterus the greater are the difficulties to be overcome in carrying out the required body functions necessary to life and therefore the lower its vitality. On the other hand many infants are born at or near term, having a normal weight, yet cannot survive. Thus we find it impossible to estimate the viability of an infant from the birth weight alone. As the above cases have shown, ability to take nourishment the degree of pulmonary atelectasis and the general tissue turgor are the outstanding points on which prognosis must be based. Flabby prematures with poor turgor and decreased tonus are usually not viable while an infant with a much lower weight with good turgor will frequently survive.

In the general care of these infants the first consideration must be given to the body temperature. There is always some degree of hypothermia, the main cause of which is the faulty regulation by the heat centre. Contributing also are the increased loss by radiation, due to absence of subcutaneous fat and a wrinkled skin, poor circulation, insufficient oxygen combustion and inability to digest food. Steps to offset this heat loss must be taken immediately on delivery. The child should be received into a warm blanket and immediately removed to a heated bed or incubator. Should there have been delay in delivery or tying of the cord it may be necessary to use the hot bath to restore the temperature. In the hospital the child is removed to the nursery and placed in an incubator which is artificially heated and ventilated. The clothing used in this hospital consists mainly of an absorbent and gauze jacket which completely covers the child with the exception of the face. Due to the thinness of the skin and the lack of resistance the danger from infection is greatly increased. For this reason and for the prevention of heat loss we use warm olive oil in preference to water for bathing. This must be done with as little disturbance to the child as possible.

Feeding is usually a difficult problem. The sucking centers are too poorly developed and the infant not sufficiently strong to obtain a sufficient diet if left to its own resources. It is absolutely essential to have the co-operation of a competent nurse. Hospitalization is to be preferred but with a little ingenuity on the part of the physician and nurse the case can be cared for in the home. Breast milk when obtainable is without doubt the ideal food. This should in the case of very small infants be diluted with sterile water for

the first few weeks. The amount to be given will of course vary with the infant. One-sixth to one-fifth of the body weight in 24 hours is considered a minimum for fluid intake. Thirty to forty calories per pound for the first two weeks followed by 60-70 per pound will supply the calorie requirements. High protein content is necessary while fat is tolerated poorly. In the absence of breast milk we have found that a dried milk such as "Dryco" in weak dilutions with a carbohydrate such as 5% Glucose or Lactose is the best food. Feedings must be small and frequent. Gavage is to be preferred as it disturbs the infant less, some infants sleeping throughout. A small soft rubber catheter is used and inserted until the tip is just above the cardiac opening, if inserted into the stomach irritation and vomiting may follow. After the food has been allowed to run in, the tube is compressed tightly and withdrawn quickly.

Prematures must have constant supervision due to their predisposition to attacks of asphyxia. The attendant should be instructed as to the steps to be taken in such an event.

F. A. MINSHULL.

Doctor,

Read this extract. Honestly I think this self-medication is becoming very serious.

Drugs such as Liniment and Nembutal are selling like aspirin and the reason is 100 %, because the physician is informing his patients to go to the drug store and ask for them or the doctor is giving his patient the sample sent by the manufacturer.

Possibly the daily unrestricted use of two such drugs will not have any physical or mental or moral effect but I doubt it, as I personally know of several cases where the patient has been taking, for months, nembutal or medinal to produce sleep—besides these are a little cheaper than three or four Spts. Frumenti.

I want, naturally, all the legitimate sales I can get but when the habit is becoming so prevalent it is time the fountain-head have it drawn to their attention.

If the druggists are in the wrong we would be glad to correct it, but not one per cent of our druggists do any counter prescribing.

S. R. B.

Advertising—While it is absolutely necessary to obtain advertising it is not always a simple matter to make a selection of such as are desirable or otherwise. The BULLETIN has made a name for itself by the character of its advertising. If anything appears that does not appeal to you as being correct pleaes advise us and immediate action will be taken.

CANCER

THE IMPORTANCE OF THE DIFFERENTIAL DIAGNOSIS OF TUMORS*.

By JOHN H. GIBBON, M.D.

THE title of this contribution is not exactly that suggested by the Committee which was "The Recognition of Cancer with Special Reference to the Untrustworthiness of Symptoms," but I think the revised title is comprehensive enough to include a presentation of the very important idea of the original one, and also admits the introduction of certain phases of the subject which to my mind need particular emphasis.

One of the accomplishments of those, both medical men and laymen, who have interested themselves in the "cancer problem," is that the laity pretty generally have been impressed with the importance of having examined any "lump" or excrescence which they may detect. These cases do not offer much diagnostic difficulty. Also, as the result of propaganda, patients are paying more attention to symptoms and many are presenting themselves for examination because of the fear of cancer, and it is this group which demands the exercise of every diagnostic measure, of skill and of judgment. Among these will always be found a small percentage of cancers, a larger percentage of benign tumors and other pathological conditions and a still larger percentage suffering only from cancerphobia. These patients who are the victims of a variety of lesions or of fear alone, and who come to us largely as the result of our own general solicitation, deserve skilful examination and conscientious advice. An error in diagnosis represents a failure on our part to carry out a compact. The examiner who does not feel himself capable of making a diagnosis should never fall into the error of making light of symptoms and giving unwarranted assurance of health, nor should he fall into the equally unjustifable but much more common error of prescribing treatment. Many of these patients, who have not been given a thorough and complete examination, are given false assurance, are carried on with symptomatic treatments or are subjected to unnecessary operation or radiation. The diagnosis then becomes the most important aspect of this whole subject, if mistakes are to be avoided.

Many patients who have been impressed by reading "cancer literature" show a lamentable judgment in the selection of "a doctor", going too often to the man who has a treatment, but no diagnostic ability and often no conscience. The universal fear of cancer has been a potent reason for the development of numerous "cancer cures", which often include an impressive but perfectly inadequate examination. The examination is free, but the "cure" demands an outrageous price paid in advance. The ingenuity and refinement

*Read before the College of Physicians Philadelphia, May, 1932 and published in their "Transactions" for that year.

of the knavery which produces these fake cures is shown by their pseudo-scientific literature which greatly impresses the uninitiated, particularly those suffering from cancerphobia.

Perhaps an example of the working of one of these agencies may better indicate their wickedness, though to most of you it may be altogether unnecessary.

A woman, aged sixty years, is referred by her physician to a surgeon because a cancer of the tongue is feared. A careful examination showed nothing whatever to suggest cancer or any other lesion of the tongue. (The large vascular papillae at the base are frequently the cause of careful self-examination by the cancerphobiac). When assured that she had no cancer and charged an ordinary office fee, she broke into tears and said that but for the lack of money she would be undergoing a course of treatment for cancer of the tongue. She had had a free examination by a representative of one of these nationally, but discreetly advertised, cancer cures, a man who adds to the privileges of of the regular medical degree the accomplishments of the osteopath, and told she had cancer and needed, of course, this treatment which would be divided into three parts for which she must pay $200 each in advance. But for her lack of funds, she might have had the distinction of being added to a long list of those cured of what they did not have. The cancer quack's best victim is the *malade imaginaire* and his method is quite like that of the *agent provocateur* or the modern prohibition officer, who incites to crime in order to make an arrest. The charlatan creates a fake disease, applies a fake remedy and obtains a fake cure. The only thing about the transaction which is not a fake is the fee. I am quite prepared to say that anyone who demands a large fixed fee in advance for the treatment of cancer at once casts a suspicion on the treatment as well as on himself, and this accusation particularly applies where the patient is the victim of an evidently far-advanced and incurable cancer.

But let us leave this particularly pathetic side of the picture and go back to the question of diagnosis where errors may be made by the most conscientious, especially if he does not employ every means available.

In the first place I should like to say that it is quite possible for the most apparent cancerphobiac to have cancer, as often there may be a real cause for this fear. Nothing constitutes a sadder commentary on one's ability than to reassure one of these patients and then have him turn up later with cancer. Careful and complete examination, often repeated at intervals, is the only way to avoid this lamentable error.

There are certain regions of the body where cancer develops insidiously and may avoid detection by the ordinary examination until it has reached a far-advanced stage. The large intestine, particularly the rectum, is one of these regions. An inexperienced surgeon of a generation ago told me the large majority of cases of cancer of the rectum he saw had been previously treated (not for what they had), but had not had even a digital examination made and that about one-half of them had had recent operations for hemorrhoids. Probably no surgeon could say the same to-day, but it is still too often true that the lesion in the rectum and distal colon remains undiagnosed, in spite of suggestive symptoms, until a stage is reached when palliation alone is applicable. This is to be regretted because cancer of the larger intestine does not metastasize early, except in the young, and the results from resection are as good, if not better, than those obtained from similar treatment of cancer

in other organs. Fifty per cent of five-year cures may be expected in these cases if operated upon before metastasis has occurred. In a recent publication* we reported 17 resections of the colon for cancer. In this group there were 5 operative deaths. Of the 12 patients surviving operation, 3 died subsequently of cancer, but each had metastasis at the time of operation. One has a recurrence who did not have metastasis when operated upon and 8 remained well from eight years to eighteen months after operation.

In the diagnosis of lesions of the rectum and lower sigmoid too much reliance has been placed on the results of roentgen-ray examination which are often negative in the presence of a growth. No examination is complete without a careful proctoscopic inspection. In the colon above the rectosigmoid the roentgen-ray examination, provided it includes a barium enema, is our most reliable diagnostic means. Alteration in the habitual function of the colon and rectum constitutes the clinical indication for further examination and the absence of blood or mucus in the stools is not sufficient cause for delay for the visual and roentgen-ray examinations.

Early diagnosis of cancer of the stomach is usually very difficult because the disease develops insidiously and too often gives no more than a suggestion of a gastric lesion. There is, as a rule, a marked contrast between the symptoms of a gastric or duodenal ulcer, which are generally quite characteristic and of great diagnostic value, and the entire absence of characteristic symptoms in cancer of the stomach. In the latter case much more valuable than symptoms are the results of blood examination, gastric analysis and gastrointestinal roentgen-ray study. No cancer of the stomach is apt to escape detection at the hands of a good roentgenologist, and from no other source can such valuable information be obtained. No treatment then is justifiable in the presence of gastric symptoms or of symptoms which may be caused by a gastric lesion until these examinations have been made. This caution is particularly important because cancer of the stomach runs a rapid course and valuable time is lost in giving treatment without a complete examination.

The breast, a common site for the development of cancer, is also an organ in which benign lesions are frequent and a differentiation between the malignant and benign tumors becomes at once important if we are to save life in the one case and avoid a needless sacrifice and disfigurement in the other. There was a time when some surgeons thought that the presence of any non-inflammatory mass in a breast constituted a justification, if not an indication, for radical amputation. Such an attitude seems to me indicates a regrettable lack of diagnostic ability and surgical judgment. On two occasions I have grouped a fairly large number of breast operations, and in about 45 per cent the operations were limited and nondisfiguring and done for benign tumors and cysts. A radical operation in this large percentage of patients would have represented a woeful lack of surgical judgment. In nearly every case of breast tumor a sufficiently accurate diagnosis of the type of tumor can be made on history, symptoms and physical characteristics to guide one in determining the kind of operation indicated. Where doubt exists the complete removal of the tumor itself and its macroscopic examination will be enough to decide the question of the necessity for the radical operation. Incomplete removal for biopsy in breast tumors is to be condemned. It seems to me that the surgeon should determine in nearly every case the extent of the operation when the doubtful tumor has been inspected and that to wait for a histological examination is in most instances a mistake. I have not great confidence in the examination

*Ann. of Surgery, 1932, 96, Mo. 1.

of frozen sections unless it confirms the clinical history, physical character and macroscopic appearance. Here again it becomes a matter of importance that the examiner should know the characteristics of the different types of breast tumor and be able to differentiate between them. Most examinations of the breast are too perfunctory and stop on the determination that there is or is not a tumor. This cannot be excused on the ground that benign tumors and cysts are apt to become malignant and, therefore, should be treated as such, for this is not the case. The benign tumors are not apt to undergo a malignant change nor are the cysts with the exception of the papillary cysts or tumors which develop usually in the center of the breast, under the areola, and which are often accompanied by the discharge of dark blood from the nipple. A serous or slightly sanguinous discharge from the nipple is not a sign of malignancy, often occurs after cessation of menstruation and, if unaccompanied by a cyst, usually spontaneously stops. Bleeding from the nipple in cancer, with the exception already mentioned, is a late symptom and one that is not necessary for a diagnosis. No patient with a benign tumor or cyst or with pain or discomfort in the breast should be told to "forget it", but in the one case the tumor or cyst should be removed, in the other re-examination at regular intervals should be made. In examination of the breast the patient should be examined in both the recumbent and sitting position. Often tumors in the breast and glands in the axilla may be found in the one position which escape detection in the other. The palpation of the breast between the fingers and thumbs is the poorest way of finding a tumor. The best way is by palpation with the open hand against the chest wall with the patient recumbent. The examination of both breasts is most important.

One might continue to discuss cancer in the other organs of the body and show further reasons for careful study and diagnosis. For instance, malignant change in the adenomatous goiter is much more common than used to be thought, amounting to at least 3 per cent. Therefore, we can no longer consider the deformity and the possibility of a toxemia as the only reasons for operation. Enough, however, has been said to indicate that if we as clinicians are going to add anything to the advancement of this subject it will probably be through a more careful study of the individual patient, the employment of all means available for diagnosis and by increasing our knowledge of the life history and characteristics of the different types of tumor.

In conclusion I would suggest that the patient having a tumor or the fear of one needs to have impressed upon him the importance of diagnosis and the selection of some one capable of making it and he should not exercise himself over the choice of treatment until every diagnostic means has been conscientiously employed.

Halifax Medical Society

THE following; from the minutes of the Halifax Branch, reports the visit to Halifax of Professor Robert Muir, M.D., C.L.B., F.R.S., F.R.C.P., Pathologist to Western Infirmary, Glasgow; Prof. of Pathology, Glasgow University. Member Board of Medical Research Council of Great Britain.

Nova Scotian Hotel,

June 5th, 1933.

A special meeting of the Society was convened as a dinner meeting to do honor to Professor Robert Muir of Glasgow, who had come to this Dominion to give the Listerian Oration before the Canadian Medical Association at Saint John, and who was now holidaying with his former pupil Prof. R. P. Smith, Provincial Pathologist and member of this Society. Dr. Atlee presided. Our Secretary, Dr. Holland poor fellow, being away on his honeymoon, Dr. Gosse acted as Secretary.

There were present the following members and guests:—

Dr. J. C. Acker,
Dr. H. B. Atlee,
Dr. G. R. Burns,
Dr. M. G. Burris,
Dr. J. R. Corston,
Dr. A. R. Cunningham,
Dr. W. A. Curry,
Dr. N. B. Dreyer,
Dr. E. I. Glenister,
Dr. N. H. Gosse,
Dr. Jos. Hayes,
Dr. K. P. Hayes,
Dr. F. J. Hebb,
Dr. S. R. Johnstone,
Dr. (Capt.) James,
Dr. C. E. Kinley,
Dr. D. J. MacDonald,
Dr. H. K. MacDonald,
Dr. P. A. MacDonald,
Dr. R. A. H. MacKeen,
Dr. K. A. MacKenzie,
Dr. E. K. Maclellan,
Dr. V. O. Mader,
Dr. M. D. Morrison,
Dr. C. S. Morton,
Dr. W. L. Muir,
Dr. J. M. Murdoch,
Dr. A. E. Murray,
Dr. H. A. Payzant,
Dr. J. W. Reid,
Dr. H. W. Schwartz,
Dr. T. M. Sieniewicz,
Dr. M. A. B. Smith,
Dr. R. P. Smith,
Dr. F. V. Woodbury,
Prof. Robert Muir,
Mr. Chas. E. Stewart,
Mr. Geo. W. Sodero.

After adequate quantities of food had been ingested, Dr. Atlee called the meeting to order and proposed the toast to the King. The National Anthem followed in quiet response.

Dr. Atlee, then, in very happy manner, stated the purpose of the meeting, and in doing so, suggested that we all were, bacteriologically speaking, Prof. Muir's children, since most of us in our early medical days were brought up by "Muir and Ritchie". He spoke of Prof. Smith's especial claim to sonship, and characterizing him as the heir-apparent called upon him to propose the toast to our guest. This he did in his usual happy fashion, and in the course of his remarks reminded us that while Prof. Muir is so well known in connection with his work on Bacteriology, he is also the author of a book on Pathology, showing at the same time that he was not very glad of that just now, for, necessity to get home for work on the new edition of that book was cutting short his stay in this City. This toast was duly honored to the strains of "Scots Wha Hae", in which a name-sake of our guest with some others of the blood were seen to take an active part. Professor Muir in responding

to the toast, expressed the pleasure which he had on coming to Canada again and spoke most appreciatively of the kindness which he had been receiving, not the least of which was this dinner.

After a minute or two in lighter vein he wondered whether on such an occasion as this he should go on to anything serious, and gave the meeting opportunity to express its wishes in the matter. It did this in a manner which left no doubt, and Prof. Muir proceeded to discuss Cancer from the standpoint of factors in etiology.

He stated that at the present time a great deal of attention is given to the question of viruses as a cause of cancer, and he then proceeded to show their present position. "Malignant tumors", he said, "are met with under different conditions, and any theory put forward, to be satisfactory, must be applicable to all kinds of growths met with."

In this connection tumors may be arranged into certain main classes:

Class 1. Those arising from tissues concerned in repair, viz. C. T. and epithelial tissues, giving sarcomas and carcinomas.

In a very large proportion of cases these are preceded by a precancerous condition in which is commonly found an antecedent chronic irritation.

He then spoke of the work done in the production of cancer experimentally and of the carcinogenic action of the hydrocarbons, and of Kennaway's work, in which he showed that this carcinogenic action was regulated by their molecular constitution—wherein one hydrocarbon will produce Ca while another will not.

He spoke of the work going on in Glasgow—on fowls: injection of tar or dibenzanthracene, producing sarcoma after a preliminary stage of non-invasive C. T. proliferation; the whole process to the development of sarcoma taking from nine months to a year.

Class 2. Tumors in this class are not so common. They arise from cells of highly specialized character—Liver, kidney, adrenal, thyroid, i. e., from cells that are difficult to cause to profilerate by irritation.

So far, it has not been found possible to produce a tumor of those cells by irritation, but from work which he himself has done, it has been shown in the case of cancer of the liver originating in primary liver cells that a large majority is preceded by cirrhosis, consequent hypertrophy, further destruction, further proliferation, until, after a time, this beneficient process becomes a malignant one. Here again then, we have a malignant process preceded by a non-malignant. one.

Class 3. Tumors arising from cells before they are fully developed. This is a very different class and is represented by rapidly growing tumors of the adrenals in young children. It was once thought that these were sarcomatous; it is now known that they originate from neuroblasts of the sympathetic system which had undergone malignant transformation. Similarly with the kidney before they have begun to function as an organ, cells of tubules may undergo malignant transformation. These represent a class in which there can be no antecedent factor of irritation, but once started all tumors behave in the same way, no matter what their cause.

He then went on to a consideration of the theory of a filterable virus being the cause of cancer, and cited tumors of fowls which may be so produced of which the Rous Sarcoma is the type. If from such a tumor an extract is passed through a filter and then injected, it will reproduce the original growth.

What is the agent which produces this? (And these tumors in fowls are identical with those found in mammals). There are two possibilities:

(1). A living agent—a virus—a germ.

(2). A non-living substance—a ferment,—"whatever that is".

A great deal of work has been done in connection with this, much of which has given rise to great controversy. The difficulties with the virus theory are,—

(1). That we must have a different virus for every animal, and,

(2). A different virus for every tumor.

He spoke of Gye's work involving the idea of a virus and a specific factor. This work has not been substantiated, indeed *all* efforts to split the agent into two factors have been unsuccessful.

He then made special reference to work being done at the moment in Glasgow. In part it is:

(1). Produce Sarcoma in a fowl.

(2). Is there a filterable agent in this growth, as there is in the naturally occurring tumor?

If it is found that the Sarcoma experimentally produced did not supply a filterable agent, then that growth is of a different nature from the naturally occurring tumor.

If it is found that a filterable agent is present where does it come from and how does it get in?

This is still being investigated by Dr. Peacock. So far, he has not been able to produce a filterable virus, but by throwing down all the cells by means of a centrifuge and using the supernatent fluid he is able to reproduce the tumor.

He emphasized that any theory of the etiology of malignant growths must apply to all types of growths. His own idea was that *it is very likely not produced by living virus*, but admitted that only the future will show.

The movers of the vote of thanks were Dr. H.K. MacDonald and Dr. K. A. MacKenzie who made speeches of rare brilliancy, rich in anecdote and scintillating with wit—great speeches befitting a great occasion.

It was an occasion to gladden Scottish hearts, for the glories of Scottish ancestry were never better recounted and the inherent superiority of anyone who by any imagining could claim a connection with the magic name "Hector" was never implied with such exquisite subtlety as it was for Professor Muir's benefit that evening. The pages of medical history of this province were shown to bear eloquent testimony to the importance of Scottish influence and The Halifax Medical Society was levied upon, and all the Campbells, MacDonalds MacKenzies et al were marched forward in illustrious array. Even a couple of Murphy's who were said to be Scotchmen were dragged in to appease the Moloch of Scottish insatiability. A hand was stretched out to draw our confrere Burns into the 'true fold' also, but alas it was found that he was an Irishman—a fly in the precious ointment—Burns an Irishman!

Dr. Atlee than put the motion which was carried with loud acclaim. The thanks of the Society was then formally presented to Prof. Muir and cheerfully accepted.

The meeting being open for discussion Prof. Smith asked about heredity, to which Prof. Muir replied that while the exact place of heredity had not been established, yet there were frequently observed families in which the incidence of Cancer is so high that it is impossible not to consider the presence of a predisposition.

Dr. Morrison asked about Trauma as a factor in etiology. Prof. Muir in replying mentioned Testis, Mamma and Bones as being sites of tumors. in which trauma is said to be a factor. But with respect to bones he said that the last war represents a great experiment in this connection since there were thousands of fractured bones and not one has been shown, upon enquiry, to have developed a tumor.

He spoke at length advancing stories in support of his idea that there is no connection between trauma and bone tumors. In the testis he believes there is such a connection.

Regarding the breast he said, that there is no doubt that for a long time Cancer is commonly present in the ducts, and acini before it breaks through If the breast gets a knock, proliferating cells are set free and the growth is said to start from that time. He said there is no experimental evidence that a single injury gives rise to a growth, but he still regards it as an open question.

Dr. Burris ended the discussion with a speech in which he displayed a profound knowledge of Scottish history.

The singing of "Jolly Good Fellow" and "God Save the King" brought the meeting to a close.

Prof. Muir created a very favorable impression on this Society. He spoke deliberately, yet simply and earnestly, as though the subject meant much to him. He spoke, "as one having authority", capable as well to express what we know as what we do not, and as an honest seeker after truth. Over it all was a modesty as striking as it was refreshing, and critical listeners had no difficulty in according him his niche among the greatest in scientific Medicine.

Dr. MacKenzie's Speech

The Scottish speech, to which reference is made in the minutes of the Halifax Medical Society which are reproduced in this number, was made by Dr. K. A. MacKenzie. The acting-secretary recorded only his own impression of the speeches and as he is not "of the blood" might well have missed the true Scottish flavour. Furthermore, the BULLETIN realizes that among us are those "faithless and perverse" who would seek the sign of more solid information. It has, therefore, caused its official reporter to prepare verbatim extracts from the speech and they are here submitted.

Dr. MacKenzie said:

"Dr. Muir is no doubt familiar with the important part which Scots have played in this country, in the field of discovery, industry, education, politics, religion and medicine. A few points, however may be emphasized. Nova Scotia is the cradle of Scottish influence on this continent. In 1773 the Ship "*Hector*" landed 200 Scottish immigrants in Pictou County a few hundred yards from the birthplace of the Chairman, Dr. Atlee, Dr. MacDonald and myself. This was followed later by other groups and from here started a wave of Scottish influence which spread not only over this continent but to Australia and New Zealand. A group migrated from St. Ann's, Cape Breton, in ships of their own construction and are the ancestors of the present Scottish population of New Zealand. Another phase of Scottish influence is found in the race. We have Frenchmen with the names of Ross, Murray, MacKenzie and MacDonald, Indians with the name of Fraser, Gordon and MacLean and Negroes by the names of Fraser, and MacLeod, all of which bear witness to the influence of the Scot*. It may be interesting to Dr. Muir to know that I have searched the records and can find no Indians or Negroes by the name of Muir. It is of some interest to note the names of the members of this society. If a roll were called we would find three MacDonalds, three MacKenzies, three Mortons, two Campbells, two MacIntoshs and one each of the following: MacDougall, Muir, Stewart, Cunningham, Maclellan, MacLennan, Graham, Murray, Patterson, Grant, Forrest, Morrison, MacKay, Rankine, MacAuley, Scammel, Corston, MacLean, Mack, MacKean, Murdock. And further we have two Murphy's who are more Scottish than Irish and an Irishman by the name of Burns. Surely Dr. Muir must feel at home in such company.

In medicine Scots have played a leading part. Our own medical school was modeled after the Edinburgh school and has never ceased to be influenced by Scottish teaching. Our men graduated from Scottish schools, and others frequently visited the old land. Dr. Stewart and Dr. Lindsay introduced Listerian methods and practised antiseptic methods before they were accepted in London or the New England States. In pathology Scottish influence is outstanding. Our first Provincial Pathologist was Dr. Andrew Halliday from Glasgow. He was a typical Scot with such a pronounced brogue that for a long time I thought that Muir was spelt with three R's. He died in his thirties of tuberculosis. He was followed by Dr. Alex Lindsay who was drowned in the Empress of Ireland when returning from Edinburgh. He was followed by Dr. L. M. Murray, and Dr. A. G. Nicholls, and now we have Dr Ralph P. Smith from Glasgow. Dr. Muir is no stranger to us. His book has been a standard text-book here for over thirty years."

*Perusal of these excerpts will indicate another impression which the acting Secretary might well have recorded to the undying glory (?) of the Scot—*they were good mixers*!

Hospital Service

THE NOVA SCOTIA HOSPITAL NURSING SCHOOL.

THIS annual function took place on June 5th and had several special speakers. In the first place it was an out-of-doors function. Again it was featured by having four men to two female graduates. In the third place special attention was given because it was Dr. Lawlor's first appearance officially since his return from his trip to the West Indies. Again it was noted that there was the assurance of the continued good health of Dr. Morton on the medical staff. The leading address of the occasion was given by Dr. W. D. Forrest and was particularly applicable in connection with his review of the early days of the institution. A very large number were in attendance. Diplomas were presented by Chief Justice Chisholm. A short address was given by the Hon. Dr. Murphy, Minister of Public Health and Mr. J. S. Misener was chairman of the gathering.

We are glad to say that the Minister of Public Health made the announcement at this time that opportunity would be had in the early future to increasing the recreation grounds for the female patients of the institution. As is known this has been a very considerable factor in both treatment and training and all will be pleased to know that the Department of Health is taking active steps to overcome this weakness.

Sr. Ste. Mary of Sacred Heart Superior in charge of St. Rita's Hospital, attended the annual convention of the recent Hospital Association of Nova Scotia and Prince Edward Island at Antigonish.

Miss Myrtle MacMillan, Superintendent of the General Hospital, and President of the Cape Breton Institute of Nurses, was one of those representing Cape Breton at the annual meeting of the Nova Scotia and Prince Edward Island Hospital Association this week.

Misses Clara MacKinnon and Katherine Power, registered nurses, were passengers, Monday, for Montreal, where they enter the Children's Memorial Hospital for post graduate work.

The Legion Memorial Home is rapidly progressing and now one can readily imagine what a fine building it is going to be and greatly add to the appearance of Plummer Avenue. Under the direction of James Conway, the frame of the building is complete and all boarded in, in preparation for shingling. The ground around the building has also been leveled off somewhat, which greatly changes the appearance of the whole lot.

Miss Susan MacQueen, matron of Sutherland Memorial Hospital, and Mrs. R. H. Pope, Secretary of the Hospital Board, also attended the annual meeting of the Provincial Hospital Association at Antigonish.

Mrs. Amy MacLaren, Superintendent of the State Hospital, Nanticoke, Pa., and her friend, Miss Rushin, R. N., of the same city left recently on the return motor trip after a brief visit to Mrs. MacLaren's relatives in different parts of the County. While in New Glasgow they were guests of Mr. Neil MacLaren.

THE HOSPITAL FOR INFECTIOUS DISEASES MORRIS STREET, HALIFAX

Summary of Hospital Records by years for the ten years 1923-1932, supplied by Dr. W. B. Almon, Senior Physician.

1923	Cases	41	Erysipelas	0	
	Deaths	0	Measles	8	
			Diphtheria	10	
			Scarlet Fever	23	
1924	Cases	78	Scarlet Fever	52	
	Deaths	1	Diphtheria	15	1 death.
			Measles	7	
			Erysipelas	2	
			Mumps	1	
			Diphtheria and Scarlet Fever	1	
1925	Cases	79	Scarlet Fever	48	3 deaths.
	Deaths	5	Diphtheria	28	2 "
			Measles	1	
			Chicken Pox	1	
			Scarlet Fever and Diphtheria	1	
1926	Cases	92	Scarlet Fever	31	
	Deaths	2	Diphtheria	36	
			Measles	16	
			German Measles	2	
			Scarlet Fever and Measles	2	1 death.
			Scarlet Fever and Erysipelas	1	
			Vincent's	1	
			Mumps	1	
			Erysipelas	1	1 death.
			Dermatitis	1	
1927	Cases	111	Diphtheria	61	
	Deaths	1	Scarlet Fever	41	1 death.
			Mumps	2	
			German Measles	2	
			Diphtheria and Scarlet Fever	2	
			Small Pox	1	
			Smallpox Contact	1	
			Erysipelas	1	
1928	Cases	116	Scarlet Fever	76	
	Deaths	3	Diphtheria	32	3 deaths.
			Mumps	2	
			Scarlet Fever and Diphtheria	2	
			Measles	1	
			Measles and Mumps	1	
			Erysipelas	1	
			Whooping Cough	1	

1929	Cases	247	Scarlet Fever	160	1 death.
	Deaths	2	Measles	42	
			Diphtheria	30	
			Erysipelas	9	1 death.
			Chicken Pox	1	
			Infected Tooth	1	
			Whooping Cough	2	
			Tonsilitis	2	
1930	Cases	338	Scarlet Fever	126	2 deaths.
	Deaths	18	Diphtheria	183	11 "
			Measles	11	0 "
			Erysipelas	11	1 death
			Scabies	1	
			Scarlet Fever and Diphtheria	3	1 death.
			Scarlet Fever and Measles	2	2 deaths.
			Scarlet Fever and Meningitis	1	1 death.
1931	Cases	215	Scarlet Fever	91	3 deaths.
	Deaths	6	Diphtheria	92	3 "
			Measles	8	
			Erysipelas	9	
			Scabies	2	
			Whooping Cough	4	
			Diphtheria and Mumps	2	
			Diphtheria and Scarlet Fever	1	
			Mumps	5	
			Syphilis	1	
1932	Cases	238	Anterior Poliomyelitis	1	
	Deaths	8	Scarlet Fever	116	2 deaths.
			Diphtheria	47	3 "
			Measles	34	
			Erysipelas	25	3 "
			Chicken Pox	2	
			Scabies	1	
			Whooping Cough	2	
			Pemphigiro	1	
			Mumps	4	
			Measles and Appendicitis	1	
			Measles and Scarlet Fever	1	
			Diphtheria and Mumps	1	
			Scarlet Fever and Diphtheria	2	
			Birth	1	(not included)

RECAPITULATION.

Total No. Cases admitted to Hospital, 1923-1933		1,556
Total No. Deaths, 1923-1932	46	2.95%

Disease	No. Cases	No. Deaths	Per Cent.
Scarlet Fever	778	16	2.1
*Diphtheria	534	25	4.7
Erysipelas	59	5	8.5
Measles	127	0	0

*3 deaths within 12 hours of admission.

Nursing Costumes

A Summary of an Address by MISS MACLENNAN, R. N., of the McGill University School of Graduate Nurses.

"HAVE you ever wondered what the nurses wore in ancient times? I was reading about them the other day: the simple dress of the virgins, the elaborate costume of the abesses, the disreputable "rigs" of Sairey Gamp and Betsy Prig."

Centuries and centuries ago in India and China they had very advanced civilizations. Recent research has yielded a rich fund of information and we find that these peoples had a wide knowledge of an extensive practice in the medical sciences. There is no special reference made to nurses, but the physician was required to "keep his hair and nails short, bathe daily, and wear white garments and shoes, and carry a cane or umbrella".

Grecian history does not tell us of any definite nursing orders, but care of the sick fell to priests and priestesses. In descriptions of the Abaton and Epidauros we read that "white garments were the rule both for patients and priests, as there was an ancient belief that white garments induced favourable dreams." As at the Abaton at Epidauros, so in the Temple of Aesculapius in Rome, the white-robed brethren cared for the sick.

With the advent of Christianity, nursing became more clearly defined. There were deaconesses whose special duty it was to care for the sick in their homes. These deaconesses were ordained by the church. "The bishop placed the stole upon her neck, after which she took the veil or pallium from the altar, and clothed herself with it. She also received a maniple, ring and crown". The Order of deaconesses spread through many countries and, in its later history, we read of a special dress for them. In frescoes, they are pictured as wearing a very full tunic, with a stiff headdress surrounding the face. The deaconess' liturgical dress was the deaconal Alba, maniple and stole.

During this period, another group of women, the Vestal Virgins did nursing. They wore on their dresses a gold fillet, symbolic of virginity, white veils and at a later period, a ring and bracelet. By the twelfth century the distinctive costume seems to have been dropped and they dressed in the prevailing fashion of the time.

In these early days, nursing was taken up by two types of persons. First, those who wished to do penance for their sins, and second, those women of the nobility who gave of their wealth and abundance to charity. The most famous of this latter class, commonly referred to as the Roman Matrons, were Fabiola, Marcella, and Paula. They all wore the garb of the laity.

In mediaeval times, nursing was carried on by the monastic orders, and men as well as women were detailed to care for the sick. The habits of the Sisters, Brothers and Knights of the many military and religious Orders, make a very colourful array in our album. The Knights Hospitallers of St. John of Jerusalem, Rhodes and Malta included Sisters in their Order, who were distinguished by their red robe and black mantle, and in later times, by an all-black habit. The regular habit of this Brotherhood, in every country, consisted of a black robe, with a pointed cape of the same colour; on the left sleeve of each robe was a cross of white linen, having eight points, typical

of the eight Beatitudes they were always supposed to possess. At a later period the regulations became less austere, and permitted the Knights to wear an octagonal golden cross inlaid with enamel and suspended from the breast with a black ribbon. Some authorities tell of a period during which the Hospitallers wore their white cross on a red ground.

Another prominent Order was that of the Teutonic Knights, whose habit was a black cloak over which was worn a white mantle with a rather broad black cross picked out with silver on the left sleeve. The Order of St. Lazarus of Jerusalem wore a plain cross on their mantle with four arms of equal length somewhat flaring at the ends. The French Lazarus cross was an eight-armed, golden and green or purplish-red cross with tiny golden lilies in the corners. The Italian insignia was white and green.

The dress of the nuns of these religious orders remained the same as that of the laity until the end of the tenth century, except on state occasions when the abbesses wore very elaborate costumes. The mediaeval saints show a tendency towards sombre habits without any bright flashes of colour. The Poor Clarissas, a Francisan tertiary, founded by St. Clara, wore the brown robe of the nun with a stiff head-piece and black hood. Agnes of Bomehia dressed in a simple garb suited to hospital work. St. Catherine of Siena was a tertiary of St. Dominique. Her habit was a light brown robe, a stiff white neckpiece surrounding the face and a long black veil.

All the nursing, however, was not being done by religious and military orders of the Middle Ages. There were several very active secular orders of great importance. The Beguinés had orders in various countries and, in each country, the habits varied in colour and in style. Some dresses were grey, some were blue; some styles followed the prevailing one of the time, others were distinctive. One style was a tight-fitting bodice, full skirt and long apron, a soft light-coloured or white head-piece and a peculiar flat, fluted cap from which hung a full length cloak. Another group of Beguinés wore a black russet gown and stiff white hood. The oblates of Florence wore a wollen robe, but a more practical veil than many others.

The brothers of the Order of the Holy Ghost wore a sky-blue habit with a black mantle decorated with a double-armed white cross. The insignia of the order was a collar composed of fleur-de-lis surmounted with enamelled flames, with a cross bearing a silver dove, emblem of the Holy Ghost. At their meetings, the knights dressed in costly round-caped mantles of blue velvet, spangled with fleur-de-lis in gold. Later this elaborate costume was worn only in choir.

Let us look now at the uniforms worn in the famous hospitals of the Middle Ages, the Hôtel Dieu de Lyons and the Hotel Dieu de Paris. In the Hotel Dieu de Lyons the nurses at first wore no special dress, but by 1526, we see them in a uniform white garb, adopted for the sake of propriety. In 1562 a change was made to a black dress with a white linen apron and an unstarched white cap. At the end of their first year in service the probationers wore a grey dress with a collar. Their full acceptance was marked by a very formal ceremony. At this dedicatory ceremony the probationer was draped in a large mantle of black cloth; she was veiled with a white veil and was presented with a silver cross. The brothers wore a blue robe.

The psychology of the uniform seems to have been well understood at this time and we are told that the physicians made rounds in gowns with long flowing veils and caps. After the French Revolution the nun-like garb of the

nurses was exchanged for the plain dress of the laity, with the tricolor as the only distinguishing feature. In the Hôtel Dieu de Paris we find the nursing being done by a strictly monastic order, the Augustinian Sisters. Their probationers first wore the regular nun's dress, then a white robe with a large white apron and finally, they received the black hood. The nurses were practically cloistered sisters, and after entering the hospital, knew no other home.

During the later Middle Ages, we find new orders arising. One, the Brothers of Mercy, present such a weird and altogether unique appearance that it must be mentioned here. These Brothers were a voluntary first aid corps, and dressed in all-enveloping robes and masks of pure white or dead black. Another very prominent order, which still exists to-day, is that of the Sisters of Charity of St. Vincent de Paul. They wore the voluminous dress of grey-blue rough cloth, white neckpiece and white muslin head-dress of the ordinary people.

The next few centuries, the late seventeenth, eighteenth, and early nineteenth, present gloomy pictures for any album, Sairey Gamp, in her "very rusty black gown, rather the worse for snuff, and a shawl and bonnet to correspond. . . . with her funeral face and carrying a large bundle, a pair of pattens and a species of gig umbrella" toddling off to a night case. Betsy Prig, "bonneted and shawled, of the Gamp build, but not so fat, her voice deeper and more like a man's. She had also a beard. Such striking contrasts to the stately abesses of ancient days and the immaculate white nurses of modern times!

The late nineteenth century shows a definite recovery from the Dark Age of Nursing. Mrs. Fry's nurses and the Sisters of Kaiserswerth did much to retrieve the lost art. The Quaker dress of Mrs. Fry's nurses is still worn by that order. The outdoor uniform consists of a Quaker grey gown, a long black cloak, and a black bonnet trimmed only with the veil. The cap is of white muslin in modified Quaker style.

Pastor Fliedner required his Sisters at Kaiserswerth to wear a becoming uniform. He believed that "looking well lays a foundation of serenity in women". Simple enough was the dress, yet it sounds attractive; a blue cotton gown and white apron, a turned-down collar and white muslin cap. Long black cloaks were worn on the street and black bonnets went over the whitecaps.

In the Crimea, Florence Nightingale and her nurses wore a plain black dress, with a white collar and cuffs. The Nightingale nurses-in-training at St. Thomas's Hospital wore a brown dress, white apron, and dotted muslin cap. At St. John's House, the nurses wore a regulation dress of "a quaint style calculated to chasten the spirit of the most frivolous-minded young women."

It is quite impossible to describe the different uniforms worn to-day, as each nursing school adopts a distinctive uniform. However, we can make an arbitrary division and a generalized statement. Nurses-in-training usually wear a coloured uniform with apron and bib, collar and cuffs, and cap. Graduate nurses in hospital and private duty service wear the all-white uniform of their School. Graduate nurses in Public Health nursing wear a coloured usually grey or blue, washable uniform and a dark tailored coat or cape. And who is not familiar with the Norfolk jacket, white collar and cuffs, and Windsor tie, of our Victorian Order of Nurses?

Our cap has lost its original useful purpose, but it is the psychological key to our uniform. "Mary, will you ever forget the thrill of wearing your cap for the first time." It would be well for every nurse to bear in mind that the nurse who disrespects her uniform brings discredit to all her fellow-workers.

Department of the Public Health
PROVINCE OF NOVA SCOTIA

Minister of Health - - - HON. G. H. MURPHY, M.L.A., Halifax

Deputy Minister of Health - - - DR. T. IVES BYRNE, Halifax.

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	DR. C. M. BAYNE	Sydney
	DR. J. J. MACRITCHIE	Halifax
Pathologist	DR. D. J. MACKENZIE	Halifax
Psychiatrist	DR. ELIZA P. BRISON	Halifax
Supt. Nursing Service	MISS M. E. MACKENZIE, R.N.	Halifax

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DR. R. L. BLACKADAR	Port Maitland

MEDICAL HEALTH OFFICERS FOR CITIES, TOWNS AND COUNTIES

ANNAPOLIS COUNTY

White, G. F., Bridgetown.
Braine, L. B. W., Annapolis Royal.
Kelley, H. E., Middleton (County) (No report from Town).

ANTIGONISH COUNTY

Cameron, J. J., Antigonish (County).
MacKinnon, W. F., Antigonish.

CAPE BRETON COUNTY

Densmore, F. T., Dominion.
Miller, B. F., New Waterford.
MacKeough, W. T., Sydney Mines.
Archibald, B. C., Glace Bay.
McLeod, J. K., Sydney.
O'Neil, F., Sydney (Louisburg & C. B. Co.).
Murray, R. L., North Sydney

COLCHESTER COUNTY

Dunbar, W. R., Truro.
Havey, H. B., Stewiacke.
Johnson, T. R., Great Village (County).

CUMBERLAND COUNTY

Bliss, G. C. W., Amherst
Drury, D., Maccan (County).
Gilroy, J. R., Oxford.
Jeffers, Edward, Parrsboro.
Rockwell, W., River Hebert (M.H.O. for Joggins).
Withrow, R. R., Springhill.

DIGBY COUNTY

DeVernet, E., Digby.
Rice, F. E., Sandy Cove (County).
Belliveau, P. E., Meteghan.

GUYSBORO COUNTY

Brean, J. S., Mulgrave.
Smith, J. N., Guysboro (County).
Moore, E. F., Canso.
MacDonald, J. N., Sherbrooke (St. Mary's Mcpy.).

HALIFAX COUNTY

Almon, W. B., Halifax
Forrest, W. D., Halifax (County).
Payzant, H. A., Dartmouth.

HANTS COUNTY

Bissett, E. E., Windsor.
MacLellan, R. A., Rawdon Gold Mines (East Hants Mcpy.).
Reid, J. W., Windsor (West Hants Mcpy.).
Shankel, F. R., Windsor (Hansport M.H.O.)

INVERNESS COUNTY

McLeod, J. R. B., Port Hawkesbury
LeBlanc, L. J., Cheticamp (County)
McLeod, F. J., Inverness.

KINGS COUNTY

Cogswell, L. E., Berwick.
Bishop, B. S., Kentville.
Burns, A. S., Kentville (County).
DeWitt, C. E. A., Wolfville.

LUNENBURG COUNTY

Davis, F. R., Bridgewater (County).
Rehfuss, W. N., Bridgewater.
McKinnon, C. G., Mahone Bay
Zinck. R. C., Lunenburg.
Zwicker, D. W. N., Chester (Chester Mcpy.)

PICTOU COUNTY

Blackett, A. E., New Glasgow.
Chisholm, H. D., Springville (County).
Bagnall, B. O., Westville.
Stramberg, C. W., Trenton
Sutherland, R. H., Pictou.
Whitman, G. W., Stellarton.

QUEENS COUNTY

Hennigar, C. S., Liverpool.
MacLeod, A. C., Caledonia (County).

RICHMOND COUNTY

LeBlanc, B. A., Arichat.

SHELBURNE COUNTY

Brown, C. Bruce, Clark's Harbour.
Churchill, L. P., Shelburne.
Fuller, L. O., Shelburne (County).
Densmore, J. D., Port Clyde (Barrington Mcpy.).

VICTORIA COUNTY

Gillis, R. I., Baddeck (Mcpy.).

YARMOUTH COUNTY

Blackadar, R. L., Port Maitland (Yar. Co.).
Burton, G. V., Yarmouth.
O'Brien, W. C., Wedgeport.
LeBlanc, J. E., West Pubnico (Argyle Mcpy.)

"The Public Health Laboratory provides free diagnostic services on public health problems for the entire province. It is, however, to be regretted that misunderstanding exists among physicians as to the scope of this work. Generally speaking, this free service includes any examination that has a direct bearing on any problem of infectious diseases. At present this includes examinations of blood for Kahn test, widal test and culture for the Typhoid group; Cerebro-spinal fluids; smears for Gonocooci; sputum, pleural fluid and pus for tubercle baccilli; throat and nasal swabs; urine and faeces for tubercle bacilli and typhoid; water and milk. Physicians desiring this service should address their communications to Dr. D. J. MacKenzie, Public Health Laboratory, Pathological Institute. Morris Street, Halifax, N. S.

Physicians desiring serums and vaccines should address their communications to the Department of Public Health, Halifax, N. S.

All specimens of tissue sent through Government owned or aided hospitals, shall be examined free of charge at the Pathological Institute, Morris Street, Halifax, N. S., under the auspices of the Department of Public Health.

Specimens should be addressed to Dr. Ralph P. Smith, Provincial Pathological Laboratory, Morris Street., Halifax, N. S."

Communicable Diseases Reported by the Medical Health Officers for the Period Commencing June 22nd, to July 19th, 1933.

County	Infantile Paralysis	Chicken Pox	Diphtheria	Influenza	Measles	Mumps	Pneumonia	Scarlet Fever	Para Typhoid	Tuberculosis, (pul.)	Tubec. other forms	Whooping Cough	V. D. G.	V. D. S.	TOTAL
Annapolis	..	..	..	4	..	..	..	..	..	..	..	..	1	..	4
Antigonish	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cape Breton	..	..	1	..	..	..	..	2	..	..	..	..	..	..	3
Colchester	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1
Cumberland	..	..	.	..	..	..	..	..	..	..	..	..	..	..	..
Digby	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Guysboro	..	..	..	..	..	..	..	..	1	1	..	..	..	..	2
Halifax City	..	2	..	..	..	..	..	3	..	..	..	..	..	..	5
Halifax	1	2	1	..	1	..	..	5	..	..	..	..	..	..	10
Hants	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..
Inverness	..	3	..	..	..	..	1	..	..	..	..	..	..	..	4
Kings	..	..	..	..	..	..	1	..	..	..	..	..	..	..	3
Lunenburg	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pictou	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Queens	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Richmond	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Shelburne	..	..	..	..	..	..	1	..	..	1	..	..	..	..	2
Victoria	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Yarmouth	..	..	1	2	..	..	1	..	..	3	1	..	..	2	10
TOTAL	1	7	3	8	1	..	4	11	1	5	1	..	1	2	45

RETURNS VITAL STATISTICS FOR MAY 1933.

County	Births		Marriages	Deaths		Stillbirths
	M	F		M	F	
Annapolis	15	14	8	13	6	1
Antigonish	14	9	1	5	9	1
Cape Breton	106	99	32	35	40	7
Colchester	27	17	15	17	12	0
Cumberland	35	31	20	22	25	3
Digby	22	20	4	9	8	1
Guysboro	16	17	3	8	3	0
Halifax	139	148	43	46	46	18
Hants	27	22	4	15	10	1
Inverness	20	17	2	8	8	0
Kings	24	35	11	20	16	3
Lunenburg	24	35	9	18	18	3
Pictou	32	25	6	25	18	6
Queens	14	8	5	5	7	1
Richmond	8	8	2	5	6	2
Shelburne	16	6	5	2	9	2
Victoria	7	7	0	1	1	0
Yarmouth	13	10	4	10	6	5
	559	528	174	264	248	54
TOTALS	1187		174	512		54

"The Public Health Nurse."

Summary of the Chapter from Dr. G. M. Weir's *Survey of Nursing Education.*

MARGARET L. MOAG, Reg. N., Montreal.

In presenting a review of this chapter from the *Survey of Nursing Education,* it is very interesting to note that ninety per cent. of the public health nurses of Canada participated in the *Survey* through replies to the questionnaires submitted, or through attendance at meetings and conferences held by Dr. Weir. It is gratifying to learn that so much practical interest has been taken by the group.

From statistical evidence presented, we learn tha there is a much smaller number of nurses from the agricultural communities than in either of the private duty of institutional groups. No doubt the directors of public health organizations have been concerned chiefly in an endeavour to obtain nurses with education, good hospital training, post-graduate training in public health nursing, or equivalent experience, while family background has not entered into the requirements; but the *Survey* offers the suggestion that nurses from agricultural communities should be of more value in the rural field of public health, especially as they would be more likely to have an understanding of the social problems found therein, and might "fit in" better than would nurses from the business and professional classes.

Reference is made to the very great need for public health nurses in the rural field in any capacity in which they may be called upon to serve. One cannot fail to be impressed by this suggestion, for it is generally recognized that our young nurses do not appear to be imbued with the pioneer spirit necessary to endure nursing the sick under perhaps trying conditions, or maternity service where emergency night work is demanded, in addition to other health work which their programme entails. This is frequently necessary when demonstrating the need for specialized services which will eventually follow. Tribute is paid to the work of the Victorian Order of Nurses and the Red Cross, and the *Survey* states that "No patriot could ask for greater opportunity to serve his country than is given to these young public health missionaries and teachers in rural and urban Canada."

Income and Savings

The section which deals with this subject gives us some illuminating data, as we learn that the total income of the middle fifty per cent. is between $1,331 and $1,690, allowing an average of $600 for living expenses. In our opinion this would be a minimum figure for living expenses in our larger cities, unless the nurse lived at home, or under crowded conditions in apartments with others, where she would have to resort to housekeeping which would include the preparation of meals after a fatiguing day in the district.

Only forty per cent. of the public health groups had saved $400, or little more, from their year's salary, and the amount saved by the average public health nurse since she began her nursing career was $1,006. Many, of course, have had to assume family responsibilities.

Nurses are living in hope that some method of superannuation may be devised; in the face of such information the outlook is not a happy one for the public health nurse who may wish to retire, or who may be forced to do so on account of illness or inability to carry on.

Report on Tissues sent for examination to the Provincial Laboratory, from June 16th, to July 15th, inclusive.

The total number of tissues sectioned is 118. In addition to this, 22 tissues were sectioned from 4 autopsies, making 140 tissues in all.

Tumours, malignant	18	
Tumours, simple	5	
Tumours, suspicious	1	
Other conditions	81	
Post Mortem tissue	1	
Awaiting section	8	114

Unfortunately the giving of an accurate Diagnosis is hindered by many of the specimens arriving at the Laboratory unaccompanied by any history whatever. Often the source of the growth is omitted. A short note of the sex and age of patient, duration of tumour and any other relevant points in the history of the case would be much appreciated and would be of considerable help in the giving of a fuller report on Diagnosis and Prognosis.

Among recent visitors to Nova Scotia whom we have not seen for a long time is (Dr.) Major Hugh Moore, M.D., R.A.M.C., originally starting life in Kentville, N. S. It is Dr. Moore's first visit to Kentville in ten years. Dr. Moore went overseas with the C. A. M. C. immediately after his graduation from Dalhousie. He has served with the British Army in France, Belgium, Germany, Northern Russia and India. Given eight months leave of absence last March, Major Moore has been with his wife and two children at Northampton, England. Until his return Mrs. Moore and children will reside at Bournemouth, where Dr. and Mrs. W. B. Moore are also spending the summer.

She had to learn. "Chicago, July 22—Her usual cigarette caused the death of Mrs. Cruz Martinez whose son said she was 108 years old. Smoking on the steps of her home, she fell asleep. The cigarette set her dress on fire. Her son beat the flames out with a blanket, but she died in hospital to-day.

Dr. James Bruce and Mrs. Bruce of Sydney were visitors at Shediac the guests of Mr. and Mrs. F. O. Condon in July.

Dr. H. A. Creighton was the guest of honor at a banquet held recently at the Hotel Ich Dien, on the occasion of his approaching marriage.

Dr. Clyde S. Marshall, former Provincial Psychiatrist, and now of Yale University, who is visiting in the city accompanied by Mrs. Marshall. They are guests of Dr. Marshall's parents, Mr. and Mrs. G. R. Marshall, 8 Black St.

OBITUARY

EDMUND JAMES JOHNSTONE, M. D., Bellevue Hospital, Medical College 1882, Sydney, N. S.

IN the passing of the late Doctor Edmund J. Johnstone the City of Sydney has lost one of its outstanding citizens and its oldest medical practitioner. After a long illness of a year or more which he stood with that courage and patience for which he was noted, he died at his residence North George Street, July 13th in the early morning.

He was one of Cape Breton's most esteemed citizens taking an active interest in all matters pertaining to the welfare of the island and its inhabitants. He was never appealed to in vain for any worthy cause, but gave of his time, energy and means in full support.

In medical matters, he showed the greatest interest and gave his undivided attention to the work of the profession. He was a member of the staff of the two city hospitals; a member and past president of the Cape Breton Medical Society and also an honorary member of the Nova Scotia Medical Society and a member of the Canadian Medical Association and he could always be depended upon to give of his best in the various societies to which he belonged. From his early manhood, he was interested in the Masonic Order of which he was a Past Master and an active member to the end of his life. He was known to his friends and acquaintances, as "Ned" Johnstone and at all social gatherings was the life of the party.

He came of distinguished families on both sides, being a descendent of the brilliant family of Johnstones, long active in political life in Nova Scotia and on his mother's side from the well known and distinguished family of Dodd, who gave several judges to the Supreme and County Courts of this Province.

Born in Sydney in 1858, he received his early education in the Sydney Academy and afterwards at Mount Allison University and later in the Halifax Medical College. He graduated from the Bellevue Medical College in New York in 1882, having as fellow students, Dr. A. S. Kendall and Dr. John K. McLeod.

In March 1932 the Cape Breton Medical Society held in Sydney a banquet in honor of Doctors Wm. McK. McLeod, E. J. Johnstone and A. S. Kendall, presenting each with a goldheaded cane in recognition of their golden jubilee as medical men, and at which prominent citizens of the Island assembled to do honor to these veterans in the medical profession. Two of these have gone to their reward, only one, Dr. A. S. Kendall remaining of the trio.

Following a post graduate course at Guy's Hospital, London, England, Dr. Johnstone settled in practice, first at Victoria Mines, C. B. and in 1900 removed to Sydney where he has resided ever since. For many years, he was identified with the medical services of the Dominion Steel & Coal Corp., and also held the important position of Port Surgeon in charge of the Sydney Marine hospital for sick and disabled seamen.

In 1886 he married Miss Caroline Kavanagh a great granddaughter of Lawrence Kavanagh, Cape Breton's first catholic representative in the Legis-

ture of Nova Scotia, after the removal of the old catholic disabilities restrictions– a reform by the way brought about by special legislation in the British parliament at the request of the Nova Scotia government in which this province led the whole British Empire. His three sons served overseas, one son, Captain Howard Johnstone of the 25th Regiment gave his life for his King and Country while the other two sons, Edmund and Murray were wounded in other actions. There are three daughters, Mrs. Carr Stewart, Mrs. Kaiser and Miss Helen in Sydney. His sister, Miss Lena Johnstone is resident in Halifax and his brother, Dr. Lewis Johnstone, M.P. at present, represents Cape Breton north and Victoria in the Dominion House of Commons.

The funeral services were conducted by the Rev. C. K. Whalley in the old historic St. George's church, after which the funeral procession formed by the medical men of the city and surrounding districts and the officers and members of St. Andrew's Lodge, the long cortege accompanying, showing the great respect in memory of the deceased. The Medical Society of Nova Scotia was represented by Doctors A. S. Kendall and John W. McLean, acting as honorary pall bearers. He sleeps in the beautiful cemetery overlooking the city where rest so many of his friends of long ago.

J. N. McL.

Dr. J. B. Cavanagh, a graduate in Pharmacy from Dalhousie died recently and suddenly in Amherst. He was well known by both his medical and pharmaceutical associates, who will extend sympathy to his widow.

Miss Sarah M. H. Dickson, one of the oldest and most highly respected citizens of Colchester County, passed away this morning at the home of her cousin, Mrs. Katherine Ritchey, Prince Street, Truro. Miss Dickson was the only child of the late Mrs. Eliza Dickson, for many years a well known resident of Truro. She was a great great-granddaughter of the late Dr. John Harris, who was the first medical doctor and the first member of Parliament from Truro.

A notable figure in the business life of Halifax till almost recent years passed away in the person of Mr. W. E. Schwartz being one of the most widely known business men in the City. Besides his large business interests he was very active in social affairs and particularly in the work of St. Andrew's church. It may be truly said of him that his life was one of usefulness. The members of the medical profession extend to Dr. H. W. Schwartz of South Park Street, Halifax, sincere sympathy in the passing of this much respected citizen.

For many years an outstanding name in Nova Scotia particularly in connection with the Medical Society of the same was that of Webster. The name first came to prominence among the Loyalists and particularly in Shelburne County. Then came Yarmouth or, perhaps, before this the grant of a large section of Kings County to the head of the family at that time.

It is rather sad to note how many of the old families of the province seem to be disappearing. In this very particular instance we have in mind the late

Dr. H. B. Webster who died a year or two ago in Kentville. He had for many years been an Honorary Member of the Medical Society of Nova Scotia and had already retired from active practice.

From the medical standpoint there did not appear to be any one of the name to take up the same work in that community. Every one was, however, delighted when they learned that his sister Miss Alice Webster had in addition to her usual home duties taken on those of Deaconess for the community in which she resided. Her passing, therefore, on a recent date was marked by very general mourning on the part of the community. The BULLETIN very greatly regrets the passing of a family that hitherto has been of such prominence in the profession and in this province.

We regret personally, and on behalf of many Ex-C. M. A., Officers, the passing on April 15th of Col. Lorne Drum of Ottawa aged 62 years. A recent journal has this note regarding him.

"Colonel Lorne Drum, Director-General of the Saint John Ambulance Brigade, died suddenly on April 15, 1933, at the age of 62. Colonel Drum had a distinguished record during the Great War and was a most efficient officer. During the early years of the War he was in charge of No. 3 (McGill) Canadian Military Hospital at Boulogne, France. Since then he had been stationed at a number of military headquarters in Canada and for the past thirteen years had served as medical officer for Military District No. 11 at Victoria. Retiring from the service in 1932, he was selected to succeed Colonel Hodgetts as head of the Saint John Ambulance Association in Canada.

"Colonel Drum was one of the founders of the Canadian Public Health Association, having taken an active part in the early work of the Association. For several years he occupied the position of Honorary Secretary. His many friends in the organization and throughout Canada learned with the greatest regret of his passing. To Mrs. Drum and to her son the Association extends its deep sympathy.

Many persons in Halifax were shocked to learn of the death in an automobile accident of Mrs. Donald B. Hebb, of Verdun, Quebec, formerly of Dartmouth and the only daughter of the Rev. (Dr.) J. A. Clark of Halifax. Mr. Donald B. Hebb who was thus bereaved is a son of Dr. A. M. Hebb of Dartmouth and will have the sympathy of a large number of friends and relatives in Dartmouth, Chester and elsewhere.

In the passing of Mr. L. M. Porthier recently Annapolis Royal and Nova Scotia mourns the loss of a citizen who has done much not only for Annapolis and Nova Scotia but for Canada. He was more than a mere historian of the rejuvenation of St. Anne's Fort; he was a world's citizen and should be so recognized. He was a genius and we should so remember him we trust some historian will give us an account of his life and work.

Personal Interest Notes

Dr. Carmen C. Browne who has been visiting his mother, Mrs. L. J. Browne, Dartmouth, left recently for his home at Naniamo, British Columbia.

"Negro changing to White;" of course he had been eating something that poisoned him and made his skin scale. We mention it, however to ask the profession and their patients not to worry themselves about much they read in the press, especially the despatches almost disguised as articles.

Dr. E. B. Hall of Bridgetown is living in the house recently occupied by Dr. G. W. White, who has returned for a time, at least, to his former home in England. Besides taking over Dr. White's house he also assumed his activities as Town Medical Officer.

"Congratulations, my boy!"
"But you heard that I flunked out of medical school."
"Ah, but think of the lives you have saved."

Dr. M. G. Tompkins of Dominion recently returned home after a pleasant motor trip.

Dr. Meahan Sr., of Bathurst, N. B., who has been visiting his son Dr. T. F. Meahan returned to his home the middle of July. He was accompanied by other members of his family.

Congratulations are again extended to the Rev. Dr. A. D. and Mrs. Morton of Halifax for having attained their 63 rd Anniversary of their wedding. Some three or four years ago, Rev. Dr. Morton indicated to us the first class cabin on one of the boats from Yarmouth to New York upon which he took his honeymoon trip. As then, so now, he is still the gentil homme and we are glad to learn that he has fully recovered from his recent illness and that he and Mrs. Morton are enjoying exceptionally good health. That they happen to be Father and Mother of Dr. C. S. Morton, of this City, is rather a matter of congratulation to all parties concerned.

Dr. W. H. Chase of Montreal, recently spent two weeks with his family at their summer home at Bay View, Pictou.

The general concensus of opinion among the druggists of this Province is that the 43rd Annual Convention held in Lunenburg in July was one of the most successful ever held. Congratulations to Mrs. Hogan of Weymouth who won the golf tournament. This was the only competition, the rest was clear enjoyment.

Mrs. M. T. Sullivan, has been recently visiting her son-in-law Dr. T. F. Meahan and her daughter in New Aberdeen.

The City Press gives us the following regarding the recent marriage of the Secretary-Treasurer of The Halifax Medical Society, Dr. C. W. Holland, Spring Garden Road. The profession generally will extend congratulations.

"The wedding of Dr. Clyde Wallace Holland of this city, the son of Leon. T. and Mary Curry Holland, and Miss Mona Kathleen Hughes, of Truro, took place in the Little Church Around the Corner at New York. The Rev. Bernard A. E. McLaughlin performed the ceremony. The bride is a native of Princeport, Nova Scotia, and is the daughter of Lewis and Mary Gardner Hughes. Dr. Holland is well known in Halifax."

Lecturer (who has spoken for two hours): "I shall not keep you much longer. I am afraid I have spoken at rather great length. There is no clock in the room, and I must apologize for not having a watch with me."

A Voice: "There's a calendar behind you, mister!"

Dr. J. A. MacDonald, son of Mr. and Mrs. J. A. MacDonald of Iona, one of the year's graduates in medicine from Dalhousie University, is leaving shortly for Cleveland, Ohio, where he will take a post graduate course in the Cleveland Charity Hospital. Dr. MacDonald led his class this year with the unusual record of having made distinction in every subject.

Mrs. Ian MacDonald (Marjorie MacKinnon) who with her husband Dr. MacDonald, has been in England, for the past winter, where Dr. MacDonald has been doing Post Graduate work, has arrived in Halifax. Dr. MacDonald will, it is expected, arrive there during the end of the summer. Dr. and Mrs. MacDonald are former Sydney people, both of whom were born there when their parents, Dr. D. J. MacDonald and Rev. Clarence MacKinnon, D.D., were resident in Sydney.

The Nova Scotian 22nd Field Ambulance on June 6th, paid a final tribute to Col. A. E. Snell, Director-General of Medical Services, in a dinner at the Nova Scotian Hotel. Dr. J. G. D. Campbell, occupied the Chair, and a number of Officers who had been associated with Col. Snell were also present to do him honor.

We notice that there has not been a political convention that has not had a record attendance. A quiet and unobtrusive but useful member who knew the coal business will be missed in the person of Dr. J. A. Proudfoot of Inverness. We understand that he is actively supporting his former associate, Dr. McGarry of Margaree Forks.

We regret to learn of the serious illness of our good friend Dr. H. H. MacKay, of New Glasgow, and we trust he will speedily recover.

The New Glasgow Evening News gives us the following:—

"Dr. and Mrs. F. N. G. Starr, of Toronto, arrived in town Friday by motor and left yesterday for a trip to Cape Breton, accompanied by Mrs. Starr's sister, Mrs. W. D. Ross also of Toronto who came almost a week ago, and had been staying with her brother, Mr. G. Walker MacKay. They had been in Saint John, N. B., attending the Canadian Medical Society's annual meeting. Dr. Starr took part in the proceedings and was elected a member of the Executive Committee.

Dr. Frank Hebb who has been doing Post Graduate work has returned to Halifax.

Mrs. E. K. Woodroffe (nee Harris) holds her formal At Home at her new home in Canning July 19th, 1933.

Dr. T. B. Acker recently returned to the City from a trip to Boston.

Creighton-Oxner.

At three thirty o'clock on Wednesday afternoon, July 19th, 1933, St. John's Anglican Church, was the scene of an unusually pretty wedding, when Catherine Maud, youngest daughter of Mrs. Oxner and the late S. Watson Oxner, became the bride of Dr. Howard Alexander Creighton, son of Mr. and Mrs. Graham Creighton of Halifax. Congratulations.

During the latter part of July, Dr. J. Milne formerly of New Glasgow and previously a physician in Freeport, was a visitor for some time at that place. He is now located in Jackson, Miss. Unfortunately the doctor's stay will be very short but Mrs. Milne will spend the summer at her former home.

A recent wedding interested both medical men and nurses when Dr. MacKay, Acting Superintendent of the Nova Scotia Hospital and a prominent Psychiatrist, a graduate of Dalhousie University and one who has done much Post Graduate work was united in marriage to Miss Jean Cosby who had been connected with the hospital as Superintendent for some considerable time; she was also prominent in the work of the Nurses associations. Congratulations.

Question—What is a traitor to his politics?
Answer—A traitor is a man who leaves our party and goes over to the other one. Reverse the action and what is he? The wise father calls him a convert.

The official announcement regarding Dr. F. E. Lawlor now appears in Royal Gazette as follows:—
"Dr. F. E. Lawlor, Medical Superintendent of the Nova Scotia Hospital, will retire from that position March 1, 1934, but after that date he will be consulting superintendent of the institution."

Dr. and Mrs. Murray Beardsley formerly of this City now of Providence, R. I., were recently guests at their former home.

Dr. J. N. MacDonald, son of the late John H. MacDonald, well known barrister of Shelburne, N. S., graduate of McGill University, Montreal, who for the past fifteen years has been practising in St. John's, Newfoundland, has opened an office at hls residence 176 Windsor Street.

Dr. A. F. Weir of Freeport recently motored to Pinehurst where some of his family are spending their vacation.

One of the last official duties of Dr. George F. White before he left Bridgetown for England, was to give the hand of his daughter, Miss Honor Jessie White, in marriage to Dr. A. R. Price of the Biological Department of the Provincial Normal College. The doctor is now at his old home in England.

The press says that Dr. Frank Hebb is leaving for Liverpool where he will practice in partnership with Dr. C. S. Hennigar.

Many friends of Dr. J. A. Noble in Moncton and Wolfville will be gratified to learn of his success at Edinburgh University. It is understood that he is returning to Canada at least for awhile bringing with him his F.R.C.S.

Mr. Harry Bell, son of Dr. Jane Heartz Bell has been recently visiting his mother in this city and friends in Amherst.

Miss Betty Cunningham, daughter of Dr. and Mrs. A. R. Cunningham, left recently for the old country where she will spend a number of weeks.

New Glasgow, June 30th, 1933.

Dr. S. L. Walker, General Secretary,
N. S. Medical Society.

Dear Doctor Walker:—

The Annual Meeting of the Pictou County Medical Society was held in Aberdeen Hospital to-day, June 30th, at 8.30 p. m. The President, Dr. J. J. McDonald, presided. The Officers for the ensuing year were appointed as follows:—

President.....	Dr. W. A. McLeod, Hopewell, N. S.
Vice-President.....	Dr. H. D. Chisholm, Springville, N. S.
Sec'ty-Treasurer.....	Dr. John Bell, New Glasgow, N. S.

The Society begs leave to nominate for appointment to the Executive of the Nova Scotia Medical Society,—

Dr. J. Stewart, Murray, River John, N. S.

Dr. V. H. T. Parker, Stellarton, N. S.

Dr. Robbins gave a very interesting account of the C. M. A., meeting in Saint John.

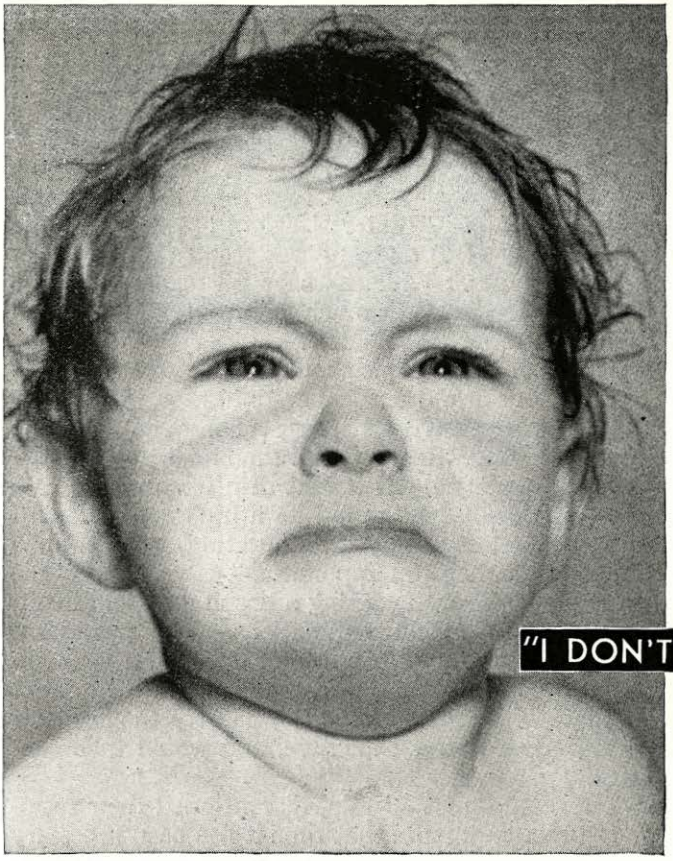
Dr. Benvie supplemented this with a racy account of his own impressions of the meeting. These talks were enjoyed very much by the members present.

The thanks of the Society are due Miss Boa the Superintendent of Aberdeen Hospital for the use of the Nurses' Lecture room and for delicious refreshments provided. The doctors present were J. J. MacDonald, Benvie, Calkin, Chisholm, Hugh McKay, McMillan, Murray, Parker, Robbins and Bell.

CUMBERLAND COUNTY MEDICAL SOCIETY.

President.....	Dr. D. Drury, Maccan, N. S.
Vice-President.....	Dr. D. M. Cochrane, River Herbert, N. S.
Secretary.....	Dr. W. T. Purdy, Amherst, N. S.

Representatives to Executive of Medical Society of Nova Scotia.
Dr. A. E. Mackintosh, Amherst, N. S.
Dr. M. J. Wardrope, Springhill, N. S.



It takes more severity than many mothers can command to force spinach upon a tearful child. Yet careful menu-planning is needed to make up the 12 mg. of iron required daily. Leichsenring and Flor, as an example, found that children's diets planned to contain 5 and 8.5 mg. iron actually supplied only 3.25 and 6.5 mg., respectively, although the diet was designed to provide a high iron intake and included such foods as raisins, carrots, graham bread, prunes, lettuce, beef, and egg.[1]

"I DON'T LIKE SPINACH!"

PABLUM *tastes good*

AND IS 566% RICHER IN IRON

PABLUM is a food that children really like and take willingly. Added to this virtue, it supplies *known* amounts of iron—more than any other food of equal caloric value! This unique pre-cooked cereal contains 566% more iron than fresh spinach with an iron content of 3.6 mg.[2] (The U. S. Dept. of Agriculture reports an even lower average for spinach—2.5 mg.[3]) When included in the child's daily diet from the third month on, Pablum is a valuable prophylactic against nutritional anemia. Besides the hemoglobin-building element, iron, Pablum contains copper and substantial amounts of calcium, phosphorus, and vitamins A, B, E, and G. Abundant, too, in calories, proteins, fat, and carbohydrates.

1-3 *Bibliography on request.*

For a Delicious Cereal, Just Add Hot Water or Milk (hot or cold)—Pablum Requires No Cooking

Pablum consists of wheat-meal, oatmeal, cornmeal, wheat embryo, yeast, alfalfa leaf, and beef bone. Supplies vitamins A, B, E, and G and calcium, phosphorus, iron, copper, and other essential minerals.

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Our Exchanges

POST GRADUATE STUDY IN GREAT BRITAIN.

DR. Hager Hetherington of London writes interestingly in a recent issue of the Bulletin of the University of Toronto of the facilities offered in Great Britain for post graduate studies. What he says particularly, in the introductory portion of his article, contains so much information and good advice that it is republished herewith in the BULLETIN,—

"In the first place, the post-graduate student should decide whether he is going to limit himself to purely clinical and academic studies, or whether he intends to combine these studies with a period of practical work in a British hospital. This decision will depend upon the length of time he is able to stay in Great Britain, and his financial backing. If a visit of a few months to a year is contemplated, a hospital appointment would be a hindrance. But if he intends to make his stay indefinite, especially if its duration depends upon the acquisition of funds while there, a hospital appointment is very desirable.

If the decision has been made in favor of seeking a hospital appointment, the student should try the Dominion Council examinations. The possession of this diploma enables one to register in any Province of Canada, a very important consideration for anyone contemplating post-graduate work in Great Britain. Of course, any graduate of a British University can try the licensing examinations for Great Britain. But this is expensive, and would take considerable time to accomplish.

In December, 1927, Ontario and Great Britain, discontinued their reciprocity agreement for license to practice. Since that time it has been necessary for any physician registered in Ontario to first register in a Province which has reciprocity with Great Britain before registration in that country is possible. This may be done either by trying the licensing exams of the Province concerned, or by writing the Dominion Council examinations and then applying for registration in that Province. The latter course is by far the more practicable. The Provinces still having reciprocity with Great Britain and the fee in each case are: Nova Scotia $50; Prince Edward Island, $50; Alberta $65; Manitoba $100. The application should be addressed to the licensing board at the Capital of each Province concerned. The business can be transacted more expeditiously and cheaply before leaving this country, and its completion will save many heartburnings on the other side. For registration in Great Britain, a license to practise in the approved Province and a graduate certificate from a recognized medical school must be presented. It is also advisable, but not essential, to have a copy of one's birth certificate.

Registration of physicians in Great Britain is controlled by the General Council of Medical Education and the Registration of Great Britain. The offices are situated at 44 Hallam Street, Portland Place, W. C. I., conveniently near Oxford Circus. The fee for registration is five pounds one shilling. This fee suffices for all time, and would allow one to practice medicine without further expense on a subsequent visit to Great Britain."

The 11th Report on Organization in Industry, Commerce and the Professions in Canada 1932.

This is a publication that goes out yearly issued by the Department of Labor of Canada. Whether or not its publication is worth while depends upon, at least, two things,—

1st. Does what it contains become of general interest to the public.
2nd. Do the people read it.

We are very much inclined to think that many of these yearly publications simply mean the reports by the various officials. They have been given fairly good salaries from time to time, therefore, they must also from time to time make reports that shall be pertinent to the matters of which they are supposed to be conversant.

A report, however, of the above character and vouched for by a Department of the Government of Canada is not a report that must be thrown to one side, but one that must be looked over to see what there is to warrant its publication. In looking over the table of contents one is inclined to note that there are certain sections more or less lengthy that should be of interest to all citizens of the country, for instance, mining, transportation and commerce, printing and publishing, professional services and amusement, agriculture, etc., wholesale merchandise, retail merchandise and real estate dealers. Then, besides, a section devoted to insurance, to technical and scientific matters and to funeral services. There is a very large section devoted to professional associations. We note that these include, legal, medical, chiropractors, osetopathists, chiropodists, nurses, optometrists, chemists, druggists, engineering, architects, surveyors, accountants and secretaries, literature, art and music, veterinarians, and miscellaneous.

There is one portion of this section that we might consider as being particularly concerned with the medical profession that is whether the Department of Labor undertakes to give the people of Canada or the members of the medical profession, etc., definite information regarding this or other activities. In this connection we find, however, that under the heading of "medical legislation" some rather interesting matters together with information as to how a man or woman in British Columbia, Manitoba or New Brunswick, can qualify for medical practice in each of the places. This enables Canada to have a Dominion-wide Registration Act and this is given in full in this and other sections of this portion of the report.

While any good General Secretary can write this portion of the report it requires the combined efforts of all secretaries to make such a report as will cover the entire field, of medical effort. Therefore actually part of the report has to do very materially with the identity of president, secretaries, etc., of various medical organizations.

The *Medical Council of Canada* was incorporated by the Parliament of Canada in 1911 and organized in November 1912. This is not a teaching but an examining body such examinations being held each year at Montreal, Toronto, Winnipeg, Halifax and such places as may be agreed upon by the Council.

The report of the Department of Labor indicates how indefinite this medical information is. For instance the names and addresses of the Prince Edward Island College of Physicians and Surgeons are first an integral part of this examining body of which there were 69 members, the duties of these members being of course delegated to a very much smaller body yet there is no dis-

tinction made between them and the ordinary members of a medical society. As for instance, the number of members of the Medical Society of Nova Scotia is put down without any further explanation as 471 resident with 425 non-resident. There has been no distinction made whatever by the Department of Labor in this report between medical men who are voluntary members of a medical society and medical men who like those in Prince Edward Island and New Brunswick are automatically members of their Provincial Association and who, if they do not pay the usual fee are more or less handicapped in connection with their work each year. In some provinces it is understood that unless the annual fee which will be from $7.00 and upwards is paid the medical man will have no legal standing in the Courts of Law in the province. The first answer to this is, of course, that the initial fee payment by the physician is very much greater in some provinces than others. The natural question is why should this be?

There is one phase of this question to which we have not given sufficient attention. This particular report is of no value whatever and exceedingly confusing unless the idea is firmly appreciated that some societies exist in the provinces that are purely examining boards. They should all carry the term Council. There are others that are more or less voluntary and include general practitioners. For instance, we note in this particular report that the Provincial Medical Board of Nova Scotia consists of some 471 practitioners resident in Nova Scotia and 425 non-resident. On the other hand, a heading which is called the Council of Physicians and Surgeons of New Brunswick consists of only nine members. When we consider certain bodies that are termed voluntary associations we note that the Prince Edward Island Medical Society has 60 members. We doubt if there are 60 medical men at present resident in Prince Edward Island and on the other hand we note the New Brunswick Medical Society has a membership of 270. A greater membership than Nova Scotia ever reached and we have at least two-thirds more medical men in this province than in New Brunswick.

Now this is not the fault of the General Secretary of the Medical Society of Nova Scotia nor as far as we know the fault of any secretary of any society. As a matter of fact this office has forwarded to this department each year a statement that was up-to-date. But the items that appeared several years ago still read the same as they did then.

As a matter of fact, this portion of the report is hardly worth the paper it is written on, were it not that it gives a large number of addresses of ex-presidents and secretaries.

As we have intimated, however, if the information regarding nurses, druggists, osteopaths, etc., etc., is as liable to misintrepretation and is likely to convey wrong impressions we are inclined to think that as far as the general distribution of this report which, we understand, is termed the "Labor Gazette, the official journal, of the Department of Labor of Canada" might as well be greatly decreased. Of course, there is a nominal subscription fee of 20 cents per annum. The BULLETIN, however, has not been called upon to pay anything in view of its response from time to time to information which as yet is to be published.

ILLEGAL PRACTICE

An Exchange says:—

"Many of the complaints about the illegal practice of medicine reaching the Society are found to be more or less without foundation. Mere suspicion

is not legal proof. Frequently those who telephone information or send it in by mail are disgruntled because "prompt action" is not taken. The law's delay is time-honored and notorious. It is not always possible to secure convictions. Complainants dislike the inconvenience of appearing in court. The present-day charlatans are too shrewd and tricky to treat strangers who are not recommended by bona fide patients."

THE DOCTOR AND THE DENTIST.

The Bulletin of the Academy of Medicine, Toronto.

(The following is the introduction to a lecture delivered recently before the Academy of Medicine, Toronto.)

"The most valuable service physicians and dentists can render to their patients is without doubt "Prevention of disease.' This service is closely followed in value by another—'The early recognition of disease.' A closer co-operation between the medical and dental practitioners would open up a splendid field of opportunities for both of these desirable types of service. If this co-operation is to be efficient, the dentist must have a reasonably sound medical background and the physician must know sufficient dentistry to recognize in a general way oral diseases, disorders and deficiences, and understand dental viewpoints and values. In later years rapid advancement has been made along these lines and both professions are seriously endeavouring to overcome their weakness in this regard.

The physician in his care of the expectant mother does not overlook the important part diet plays in her dental health and that of her offspring. The extra demands of nature for calcium and phosphorus during pregnancy and the lactation period cannot be denied without decidedly harmful results. The over ingestion of carbohydrates is to be guarded against. The physician understands the importance of balanced diet during the formative periods of deciduous and permanent teeth, and so advises the mother as to the necessary precautions."

According to the newspapers, the Hon. Herbert Bruce addressed the Ontario Medical Association in Hamilton, as follows:—

$700,000,000 for Medicine.

"According to Hon. Dr. Herbert Bruce, Lieutenant-Governor of Ontario, during an address at the annual dinner of the Ontario Medical Association in Hamilton, Ont., $700,000,000 is spent in the United States each year for medicines, and 75 per cent of this, or more than $500,000,000 is spent for self medication largely in the form of patent medicines. "This suggests," commented Dr. Bruce, "that the public are specializing in treating themselves, which may in some measure be due to the confusion of inevitable for he patient who lacks the understanding guidance of a general practitioner."

One phase of this matter is dealt with by a correspondent in this issue to which your attention is directed.