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Plan Now to Attend

THE ANNUAL MEETING

OF THE

MEDICAL SOCIETY
OF NOVA SCOTIA

PROGRAMME OF ENTERTAINMENT

JULY 3rd.

Luncheon—Place to be announced.

Chairman—President Cape Breton Medical Society.

Speaker— Judge Neil R. McArthur.

Subject— Some interesting people I have met and their peculiar sayings.

9.30 P.M. Smoker at the Royal Cape Breton Yacht Club.
Entertainment—Sleight of Hand, Stories (Spicy).
Short remarks by guests.

JULY 4th.

12.30 Noon. Luncheon.

Chairman—President Cape Breton Medical Society.

Speaker— A. L. Hay.

Subject— Coal.

4.30 P.M. Outing and buffet supper at Big Pond.
Farewell to guests.

SYDNEY, N. S.

July 3rd and 4th

*"Idiopathic Dilatation of the Oesophagus"

By V. D. SCHAFFNER, M.D.,C.M.
Kentville, N. S.

THE disease I have chosen for discussion this afternoon is sufficiently uncommon, and its surgical management is sufficiently unsettled to warrant some comment.

Concerning its name there is no agreement. Opinion as to its etiology is divergent. Treatment is varied. The name given in the majority of text books is "cardiospasm of the oesophagus". Other names have been given, such as phrenospasm, achalasia cardia, megaoesophagus and others. Most of these names, it is seen, imply that spasm plays a predominant rôle in the causation of the symptoms. This at the outset probably gives an erroneous idea and it is doubtlessly much safer to use the title "Idiopathic Dilatation of the Oesophagus" as suggested by Scrimger, who has carefully studied these cases and has reported four of them.

The symptoms of the disease are familiar to all, and deserve but little comment. The patient is usually fairly young or about middle age. The first symptom noted is slight difficulty in swallowing and substernal distress. As time progresses swallowing becomes progressively more difficult, and regurgitation or vomiting of food becomes a feature. The victim frequently is required to take a long time with each meal, eating by taking small amounts and then "washing it down" with a great deal of water. By violent efforts he is usually able to get some food into the stomach. Life becomes a burden and he becomes thin and emaciated.

Before proceeding to a discussion of the pathology of the condition, let us briefly consider the anatomy of the normal oesophagus. (These notes are abstracted from Dr. Scrimger's article). It is a muscular tube extending from the inferior constrictor muscles of the pharynx to the cardiac end of the stomach. On the left side the oesophagus wall forms a sharp angle at its junction to the stomach. This is called the cardiac notch and on the mucosal surface of this notch there is a fold of mucus membrane called the cardiac valve, although it has no valve action. The right border of the oesophagus is continuous with the lesser curvature of the stomach. The upper orifice is formed by the inferior constrictors of the pharynx. The muscular wall of the oesophagus consists of two layers, an outer longitudinal, and an inner circular. The longitudinal fibers arise as a band on the posterior surface of the cricoid cartilage. This is overlapped by the inferior constrictors of the pharynx to form the superior sphincter of the oesophagus. The lower fibers from the cricoid form a circular bundle transitional between the striped fibers of the inferior pharyngeal constrictors and the unstriped upper circular fibers of the oesophagus. These fibers when at rest are in a state of tonic contraction and maintain the upper opening closed. The sub-diaphragmatic portion

is important as it is at a level of the diaphragm that obstruction always occurs. This section is about 3 cm. in length. The left border, as stated above, forms a sharp angle with the stomach, the right border being continuous with the lesser curvature. There is general agreement that a cardiac sphincter is formed by a thickening of the circular fibers. This is a definite, but not strong sphincter. The arrangement and termination of the longitudinal fibers is not clear. Forsell pictured an arrangement of longitudinal fibers which, working together, act as definite active dilators. Dissections of the longitudinal muscle layer show an arrangement of longitudinal fibers which bend sharply round the angle between the left border of the oesophagus and continue on into the outer layer of the muscles of the right border of the stomach. This, together with a fixation of the right side of the oesophagus at the hiatus, must act as a dilator while a paralysis of these longitudinal fibers will allow the unopposed circular fibers to close the cardia. It is the contention of Chevalier Jackson that the cardiac end of the oesophagus is closed by contraction of the muscle bundles of the diaphragm. This has some anatomical support in that the crura circle the oesophagus, but the hiatus is much larger than the oesophagus.

The nerve supply comes from three sources or really four. It is supplied by both vagi, the cervical para sympathetic from the recurrent laryngeal nerves, and the sympathetic from the inferior cervical ganglion. Beside these there is the intrinsic nerve supply of Messiner's and Auerbach's plexuses.

Concerning the physiology of the oesophagus, it is merely a conduit for the passage of food to the stomach. By what means is food transported? In man three factors are at work. First there is the "squirt" action incident to the sudden contraction of the pharyngeal constrictors; second, there is the effect of gravity; and thirdly, peristaltic action of the oesophagus. All three of these play a part in man. Fluids can pass into the stomach through the effect of gravity alone. This is important as will later be shown.

Now as to pathology. The oesophagus in cases of idiopathic dilatation is both elongated and dilated. The dilatation begins in the upper end and gradually increases in the lower third. From its maximum width in the lower third it tapers to a point at the diaphragmatic hiatus. On the diaphragm it is kinked and lies to the right. This is consequent to the elongation. It thus forms an acute kink at this point. This acute kink naturally acts as an obstruction and the more full the oesophagus is the greater becomes the obstruction. The immediate diaphragmatic portion is almost always of a normal diameter. The sub-diaphragmatic portion is described as normal or smaller than usual. This is an important point to note. The most important point to note, however, is that there is absolutely no hypertrophy of muscle. This lack of thickening of the muscular coat means but one thing and that is that there cannot be spasm. Spastic sphincters always hypertrophy; for instance compare the appearance of the pyloric end of the stomach in congenital hypertrophic pyloric stenosis. The contrast is striking.

The lining mucosa is usually thin, inflamed or ulcerated.

X-ray examination of these cases shows a greatly dilated oesophagus and one with little or no peristaltic action. The obstruction is always at the diaphragmatic level. The absence of peristalsis, the dilatation and the elongation immediately suggests that the underlying cause is really a derangement of innervation. This, however, has not been proven.

If the real cause of obstruction is elongation and kinking, a mode of treatment is immediately suggested.

Now in regard to treatment, various methods of combat have been tried and most have completely failed, a few have given temporary relief and some recent methods are promising. First antispasmotic drugs have repeatedly been tried with uniform failure. No improvement whatever is noted from their use and why should there be if the element of spasm is lacking? Dilatation by means of oesophageal dilators, hydrostatic and mercury bags has been extensively used and in some cases reports are forthcoming of a fair degree of temporary relief. It, however, is not satisfactory. Retrograde dilatation has also been done by entering the stomach and dilating the cardiac end of the oesophagus with the finger. Again no great enthusiasm has been shown in regard to this method.

Arguing that the cause of the obstruction is an elongated and kinked oesophagus and that food will pass into the stomach if given the chance, by gravity alone, the rational treatment is to straighten out the oesophagus. This operation was first proposed by Scrimger of Montreal and has been carried out by him in four cases. In his first two cases he cut through the muscles of the lower end of the oesophagus as in a Ramstedt operation in hypertrophic pyloric stenosis. The first case did well, but the second died of an acute mediastinitis incident to a leak. The oesophagus is extremely difficult to suture and once the lumen is opened the chances of fatal infection are great. Although the oesophageal muscles were cut in these two cases, there was no evidence of spasm or hypertrophy. The next two cases done by him he merely brought the excess oesophagus through the diaphragm and sutured it below. Good results were obtained in both.

Churchill in a paper read before the Clinical Congress of the American College of Surgeons, Boston, October, 1934 (Surg. Gyn. and Obs. Vol. 60 No. 2A) advocated the bringing down of the excess oesophagus into the abdomen and anastamosing it to the stomach as in a Finney pyloroplasty. This greatly adds to the risk of the operation on account of the difficulty in getting sutures to hold in the oesophagus and, it would seem, that it is entirely unnecessary for a satisfactory result.

I wish to report briefly a case that I have quite recently had the opportunity to do. The Scrimger type of operation was done in every detail.

The patient, a male, age 34—referred by Dr. J. P. McGrath. He gave a history of increasing difficulty in swallowing and substernal distress for a period of two years. For two days previous to his admission to the hospital he was unable to swallow even water and there was a continuous regurgitation of a thick mucus. He was thin, pale and emaciated. X-ray examination taken a month previous to admission showed a dilated oesophagus, tapering at its lower end to a block at the diaphragm. It had no peristaltic action. There was no X-ray evidence of elongation or kinking.

An oesophagoscopy was done by Dr. McGrath on Feb. 6th, 1935. There was considerable frothy mucus in the oesophagus and it was dilated. The mucous membrane was pale and smooth, but no ulcerations. A definite block was encountered 44 cm. from the teeth, through which the scope or metal sucker could not be passed. As afterward shown this block was due to a kink in the oesophagus and the instrument came down directly on the dome of the diaphragm just to the right of the cardiac opening. Had a soft rubber tube been used instead of a straight metal one, it would have passed into the stomach with ease.

On February 14th, 1935 operation was performed. Exposure was made through a Marwedel incision, that is a left paramedian incision, beginning

about 3 inches above the xiphoid and extending downward to a level of the umbilicus. The muscles were separated and elevated from the costal cartilages and the 7th cartilage cut close to the sternum. The 7th, 8th and 9th cartilages were then cut at the costochondral junctions thus forming a flap of the costal margin and diaphragm. The posterior rectus sheath was then incised and the abdomen opened. By reflecting the costal flap upward and to the left, the superior surface of the left lobe of the liver was exposed. This was mobilized and reflected downward and to the right by severing the left triangular and coronary ligaments. This gave excellent exposure of the subdiaphragmatic space and the abdominal portion of the oesophagus. The subdiaphragmatic portion of the oesophagus was short and about $\frac{3}{4}''$ in width. It was not thickened or hypertrophied. A large vein running on its anterior surface was tied and cut and the crura of the diaphragm cut in a radical manner and the mediastinum entered. The oesphagus was found dilated and lying well to the right on the dome of the diaphragm thus forming an acute kink. It was mobilized by blunt dissection and separating the loose areolar tissue about it with the finger. It could not be delivered through the diaphragm so the left vagus and then the right were severed. (This has no ill effects). Having cut both these nerves about 3″ of dilated oesophagus could easily be delivered into the abdomen. When sufficient had been brought through to cause it to be straight it was sutured to the hiatus. The coronary and triangular ligaments were then repaired and the wound closed.

The post operative course was entirely uneventful and the next day he was able to take fluids with ease. His diet was increased until at the time of his discharge he was taking a fairly liberal house tray.

X-ray examination was repeated on March 5th, 1935. There was still slight dilatation of the oesophagus, but greatly less than in previous examination. The contrast media passed by gravity into the stomach without more than 5 or 6 seconds delay. A tortuous oesophagus was seen below the diaphragm.

This patient was seen on May 4th, 1935. He has put on weight; color and general appearance is that of perfect health. He is eating three ordinary meals a day and has no difficulty provided he eats slowly.

Treatment of Varicose Ulcers by Means of Elastic Adhesive Bandages and Injection of Veins with Sodium Morrhuate

A. B. CAMPBELL, M.D., Bear River, N. S.

DURING the last four years I have been successful in completely curing a number of cases of varicose ulcer, (which had resisted all other means of treatment) by means of elastic adhesive bandages and injection of veins. These patients were all more or less disabled and were, if I may borrow the phrase, "on the surgical scrapheap."

Case 1. Mrs. J., age 56. Varicose ulcer, sixteen square inches in area on the outer side of the right leg, about five inches above the malleolus. The leg was quite oedematous, some varicose veins visible and numerous sunbursts. She had had this ulcer for sixteen years. Before coming to this country from Scotland she had been treated in hospital in Glasgow. It would heal up while in bed with the leg elevated, only to break down as soon as she went home and back to work. I was able to inject three loops of veins above the ulcer, putting about ½ cc. Sod. Morr. 5% in each. Then I put on a three inch elastoplast bandage as firmly as possible, using a vertical strip over the ulcer as directed by the makers. This was comfortable for four days. By that time the lessening of the oedema had loosened the bandage and the discharge from the ulcer had made it offensive. I removed the bandage, and this time I was able to get about one c.c. Sod. Morr. 5% in five different loops,—then replaced bandage. This one was all right for seven days, then replaced, injecting all loops easily reached. The ulcer showed a marked improvement from the first bandage, decreased in size rapidly, and became painless. It healed in sixteen weeks, requiring fifteen bandages. She was able to work in comfort a few days after the treatment was started. Her leg is now completely healed, all veins injected are sclerosed and can hardly be found. She wears a give-and-take bandage for protection. She had this ulcer *sixteen* years,—it was *sixteen* square inches in area, and healed in *sixteen* weeks.

Case 2. Mrs. C., age 78. Varicose ulcer four square inches in area, right leg, inned side about three inches above malleolus—ulcer about two square inches in area on the outer side of the left leg about five inches above the malleolus. Both legs oedematous—with large varicose veins and many sunbursts. I injected one-half to one cc. Sod. Morr. 5% in several loops and put an elastoplast bandage on each leg. Changed on the fourth day, the oedema was much less,—the ulcers showed a marked improvement, smaller, cleaner and healing. They were both healed in six weeks,—using seven bandages to each leg. She had been troubled by these ulcers for twelve years. At first she was able to heal them by staying a week or so in bed, but for the last few years they were obstinate and she had become discouraged and probably would not stay in bed for a sufficiently long period. This result was

gratifying considering the age of the patient. It seemed to give her a new lease of life.

Case 3. Mrs. W, age 52. Varicose ulcer four square inches in area on the outer side of the left leg, three inches above malleolus. Large varicose veins extending right up to saphenous opening, with a large, grape-like cluster of varicosities at the popliteal space. There was very little oedema. I injected the veins in four different places with one half to one c.c. Sod. Morr. 5% and put on a bandage. This I removed in four days. The ulcer was improved, but the veins were unchanged. I injected the veins in four places, using one half c.c. Sod. Morr. 10%, and replaced bandage. This injection had a marked effect, clotting the blood so that the veins were solid right up to the saphenous opening. The patient called me because of the pain. I removed the bandage and found the veins very hard and tender. She had to stay a week in bed with the leg elevated,—ice-bags applied locally seemed to give the most relief. The ulcer healed rapidly and her subsequent progress was satisfactory. Inflammation and pain disappeared and the leg became normal. To-day the site of the ulcer is marked by a small brownish pigmented spot in healthy skin, and practically no sign of the veins can be found.

Case 4. Mrs. McC., age 68. Small ulcer about the size of a silver dollar on the inner side of the left leg, five inches above malleolus. No varicose veins,—no oedema. She gave a history of having an attack of what was called "eczema" some years before. This had cleared up, leaving this ulcer which would not heal. Her blood was negative and I do not know what caused the ulcer. She was anxious to try the bandages because of their success in other cases. I applied the bandages in the same way and the ulcer healed in six weeks, using five bandages. Her case was different from the others in this, that she found the bandages painful to wear.

Case 5. Mr. E. S., age 56. This man had a very large ulcer, completely encircling the left leg in the lower part of the middle and the upper part of the lower third. It was very widespread and fully fifty square inches in area. It was of thirty-two years duration, dating from an injury to the leg which injured the muscles of the calf of the leg, and left him with an ankylosed ankle joint. He had had it healed up several times by rest in bed with the leg elevated, but it always broke down on returning to work. He was treated in the V. G. Hospital in 1921 and again in 1926. On each of these occasions all the visible veins were dissected out and the ulcer healed. However, it recurred as soon as he came home and started to work. On his last visit to the V. G. he was told that if it recurred he would have to have his leg amputated. I saw him first in August, 1933. His leg was very oedematous,—a few loops of varicose veins could be seen and the ulcer was discharging a thin, watery pus. It took two bandages to cover the leg,—several vertical strips being required to cover the ulcer. These bandages had to be changed in three days because of the excessive discharge. The ulcer showed improvement and the bandages made his leg much more comfortable. The bandages had to be replaced first every three or four days,—then every six or seven—later every ten to fourteen days. By December it was all healed but about ten square inches. This area was deep and has taken a long time healing. It is now almost completely healed and the bandages are changed once each month. He is free from pain and is able to work without disability from the ulcer.

The advantages of this treatment are—1st, From the very start of the treatment the pain is less and the patient's disability begins to decrease. 2nd—it is ambulatory and there is no loss of time from work. 3rd—if kept up sufficiently long the ulcers are completely healed, the veins sclerosed and there is no recurrence. 4th—The treatment can be given anywhere.

"No. 1 was taken on August 15th at beginning of treatment. No. 2 on October 15th on completion of two months' treatment. No. 3 on December 15th on completion of four months' treatment. These show only one side of the ulcer, as it completely encircled the leg."

Disseminated Sclerosis

O. R. STONE, M.D., Bridgetown, N. S.

MY purpose in presenting this paper is not that I have anything to offer to what is already known of this disease of the nervous system; but with the hope that by reviewing the history, etiology, symptomatology, course and progress of this clinical entity, we may have a clearer picture in studying the symptom complex of multiple sclerosis.

Later on in this paper I will give in detail the history of a case which recently came under my observation, showing the strange vagaries which this disease plays upon its victim.

Multiple sclerosis has been defined as "a diffuse structural disease of the nervous system occuring usually in young adults; characterized pathologically by irregularly distributed areas of degeneration, and clinically by a varied symptomatology of predominately motor type, in which the signs of scanning speech, intention tremor, nystagmus, and muscular hypertronicity, are particularly characteristic."

The first description of multiple sclerosis as a definite entity was in 1840. Later on Charco and others clarified the disease picture, and it was Charco who gave the signs of scanning speech, nystagmus, and intention tremor, as pathognomonic of this ailment. Others have further clarified the knowledge gained down to the present time.

In considering the etiology of disseminated sclerosis there is no satisfactory explanation. Some maintain the cause of the disease developmental; others claim it is due to external causes attacking a previously healthy nervous system; and again there are those who claim both factors are at work in individuals with weak nervous systems.

It cannot be explained on hereditary grounds, nor is the one sex more susceptible than the other. It is when we come to age that we can be more definite, for this disease occurs almost invariably in the early decades of life. It may be said in general that eighty five per cent of the cases begin between the fifteenth and thirty-fifth years. It is rare under fifteen years of age.

Trauma may play a part in the same way as trauma in relation to any disease; for example as in osteomyelitis; but it likely plays an insignificant part in causation of multiple sclerosis.

Metallic poisons have been suspected as a causative factor. A few cases have been observed where a possible relationship between poisoning by lead and zinc and the onset of multiple sclerosis have been conjectured. However, this has yet to be proved.

Emotional disturbances have been mentioned as a cause; and indeed was a symptom in my own case, but the relation of cause and effect must be determined before this may be considered in the causation.

Poverty and unhygienic conditions of life play no part, for this disease occurs with equal frequency among the well to do.

Syphilis plays no part in the etiology. Bacterial infections have received much consideration, but the case is not proved.

No specific causal agent has been found. Therefore the question of etiology must remain problematical. It may be said that, "the evidence at present available points toward an unknown toxic agent as the cause of the disease which acts through the blood or lymph stream upon a weakened and therefore susceptible nervous system."

In approaching a case where one's suspicions are directed toward the nervous system, one looks perhaps, as did the writer, for the cardinal signs as laid down by Charco, that is intention tremor, nystagmus, and scanning speech; only to find them absent. Doing this has led to many diagnostic errors; for more often, in the early case, these signs are not present; and one may be led by devious paths away from the diagnosis. I do not think I can do better than at this point to give the history, course and progress, of the case mentioned at the beginning of this article.

Case—Miss K. M. Age 26 years. Nurse.

This patient was in perfect health in 1931 and carried on her work as night supervisor in a nospital. She was sensitive, very conscientious, and had a very keen sense of her responsibility as supervisor and operating-room nurse. She worried a great deal. She carried on her work as usual until early in the winter of 1932, when she first noticed tingling, followed by numbness, in hands and feet. She was also tired and unable to sleep except with hypnotics. These symptoms cleared up in about two weeks and she forgot all about her sickness and felt perfectly well; except as she said she was nervous and sleepless. About a week later while doing her work in the operating room she felt dizzy, tiles on the floor were blurred. This continued constant, and in a few days there developed double vision, which glasses did not correct. These symptoms continued for a month and then disappeared as suddenly as they began.

At this time she took a complete rest for two months, after which she returned to her work improved in health; but still complained of tiredness. She carried on for three months; and then broke down completely. She became hysterical, though none of the symptoms mentioned above were manifest during this attack; but she still "felt tired". She recovered in a day or two and returned to her work. A month later a similar outburst occurred; there was another period of rest and again she returned to her work greatly benefited. She only continued for two weeks when the old symptoms mentioned first, namely, tingling, numbness, etc., returned. Added to this she noticed it required a decided effort to mount the stairs. A blood examination at this time revealed a very severe grade of anaemia. She returned to her home and under rest all symptoms disappeared as they had before; but she still complained of loss of strength. She remained free of symptoms for several months.

In November, 1934 she came under my observation, complaining of dizziness with vomiting, double vision, occipital headache, tingling, and numbness in the extremities.

Physical Examination—Apart from the nervous condition there was nothing of any significance to be made out.

Blood Examination—R. B. C. 4,790,000. W. B. C. 10,950. Platelets 163,000. Hb. 94%. Reticulocytes 0.5%. Differential Polys. 78%. Lymphs 20%. Monos. 1%. Degenerated Forms 1%. This would appear to definitely rule out any pernicious anaemia. The blood chemistry was normal. The khan test was negative for both blood and crebero-spinal fluid.

Examination of the Nervous System—One made out the following—The deep reflexes were increased, absent abdominals, patellar, and ankle clonus present, particularly on the right side, with a definite babinski, though not so definite on the left. Sensation was practically normal except that along the medial side of the leg there was dimiished sensation to pin prick, heat and cold. There were no cranial nerve signs, and the fundi were normal. There was slight ataxia of both hands, and on walking (with aid) she perceptibly dragged her right foot. There seemed no doubt of a definite pyramidal lesion and a diagnosis of multiple sclerosis was made.

She was sent to a hospital and under rest and a trial with tryparsamide her symptoms cleared up; although I do not think that tryparsamide played any part in her relief of symptoms. Following her discharge from hospital she contracted "flu", when all the old symptoms reappeared in aggravated form. The tingling and numbness, involved the whole trunk from the breasts down. There was also relaxation of the sphicters; the right side was the more involved, and the right side of the face and half the tongue and jaw were included in this crisis. There was marked weakness also in her right leg, and she could walk now only with help. Most of these unpleasant symptoms have disappeared, and at the present time there is marked improvement. The patient feels well but experiences difficulty in walking. This case has been very interesting to me because of the previous history, the subsequent course of events, the crises, and the remissions with their periods of well being.

As pointed out before intention tremor, nystagmus, and scanning speech were absent in this case; and the ataxia was very, very slight.

In multiple sclerosis the earliest symptoms usually are a sense of weakness or stiffness in the legs, vertigo, fatigueability, inco-ordination, paraesthesia, blurred vision, etc. In this case occular symptoms were prominent; which, associated with vomiting and headache, suggested a brain tumor, but the fundi were normal, and the history together made it possible to rule out this probability.

In arriving at a diagnosis as we said before, one must remember that the classical symptoms of Charco are unusual and not the usual. The general tendency to exacerbations and remissions, and even to apparent recovery, as in this case, must be remembered. In these atypical forms where classical symptoms are absent one should look for spasticity; and where this is absent or slight, one may find in the symptomatology transient diplopia, perhaps changes in the fundi, vertigo, emotional instability, various forms of mental disturbances, paraesthesia, bladder disturbances, etc.

In the differential diagnosis it is not one's intention to do more than to mention the fact of other diseases of the cord, tumor of the brain, polyneuritis, and hysteria.

The average course of the disease is from five to ten years, but some cases have long remissions of symptoms. According to the literature, report of cures in the present state of our knowledge cannot be accepted; and the prognosis must therefore be considered as definitely bad. Yet one may give encouragement to the patient that remissions are exceedingly likely to occur and the annoying symptoms may change their character or even disappear.

Treatment is unsatisfactory and unavailing. Some hope was held out for serum (autogenous) elaborated by Purves Stewart, but one is informed that this has proved disappointing. Mercury, arsenic, and the iodides are,

and have been used; but have not accomplished anything. Tryparsamide has been given trial, in the hope of arresting progress of the disease.

The condition of the bladder should cause concern, and at the earliest sign of irritation or infection proper methods should be used at once to combat this threat to the patient's life. In the acute stages there should be rest, but during the remission of psychological and organic grounds the patient would be much better at work.

It can be readily seen that in this disease, where the etiology is so obscure, and where the opinion as to cause is so diverse, no treatment save symptomatic can be of any avail.

A man from Montreal was peering into the depths of the Grand Canyon.

"Do you know," said the guide, "that it took millions of years for this great abyss to be carved out?"

The man from Montreal was tremendously impressed. "You don't tell me!" he commented. "Why, I didn't know it was a Government job."

A Dinner That Paid.

"I am sorry, doctor, you were not able to attend the dinner last night, it would have done you good to be there."

"It has already done me good, madam; I have just prescribed for three of the participants."

An elderly negress had sustained injuries in an accident and the claim agent was having difficulty in getting her to come around to his way of thinking in the matter of a settlement.

"Surely, Mandy," he said soothingly, "you wouldn't think of suing us for damages, after what I have offered you."

"Damages, white man?" she replied scornfully. "Ah already gotten moh damages than Ah wants. What Ah craves now is repairs."

"Mother—" began little Mary.

Her parent, who was in earnest conversation with a friend, motioned her to be quiet.

A few minutes went by, and the child again said:

"Mother."

"Mary," said her mother sharply, "you must wait until I have finished before you speak."

The child shook her little head.

"But, mother," she replied, "you never finish."

*The Treatment of Post-encephalitic Parkinsonism

P. S. COCHRANE, M.D., Wolfville, N. S.

MY purpose in writing this paper and giving the accompanying case report is to show what sometimes can be accomplished with cases which are only too frequently considered hopeless and left at that.

Fortunately the number of cases of Encephalitic Lethargica who are suffering from Parkinsonism are very few in this country but nevertheless the ones we see deserve more vigorous treatment than they generally receive.

The problem is a fairly new one as von Economo first described the disease in 1917 and Buzzard in 1919 first drew attention to the parkinsonism following encephalitic lethargica. On reference to a recent book on Diseases of the Nervous System (1933) also a recent edition of a text book of Medicine it was found they contained only very vague suggestions as to treatment of post-encephalitic parkinsonism, such as "Hyoscin hydrobromide gr. 1/200—1/50 b. or t.i.d., or Tr. Belladonna in $\overline{v}$—$\overline{xv}$ t.i.d. or Tr. Stramonium may be tried."

About one year ago I read an article by Hurst of Guy's Hospital, London, on the above subject and as I had a case which had been given up as hopeless by an eminent neurologist in a neighbouring country, I was ready to try anything which offered the least hope of improvement.

I am taking the liberty of quoting freely from Hurst's article all through this paper, as his contribution to the treatment of this condition is the best which has come to my notice.

Drug Treatment.

Due to the close resemblance of post-encephalitic parkinsonism to paralysis agitans it is natural to expect Hyoscin to have a good effect in the former. It has been found to have very little effect on the tremor which is usually less marked than in paralysis agitans, but to have a definitely favourable effect on the rigidty, which does not hold true in the case of paralysis agitans when pushed to the limit of tolerance.

It has been proven by careful observers that Stramonium (which contains Atropin & Hyoscyamin) which was more effective than Hyoscin, also that the mental as well as the physical condition of the patients showed greater improvement. Some of these observers gave M $\overline{xlv}$-$\overline{lx}$ of the tincture t.i.d. and found the patients so improved with the effect that they were willing to continue with the drug in spite of the unpleasant dryness of the mouth and blurring of vision to which it gave rise.

In 1928 Hurst felt that a combination of Pilocarpin with Stramonium or Hyoscin would enable him to give larger doses of the latter drugs and obtain a still more favourable result than when the drugs were given alone in post-encephalitic parkinsonism and paralysis agitans. His results were most satisfactory and in every case there was improvement, thereby making the life

*Read before the Annual Meeting of the Valley Medical Society, Kentville, N. S., May 16, 1935.

of the patient more happy as a result of overcoming a good deal of the rigidity of their muscles. It requires considerable time and alteration of dosage before one arrives at what appears to be the best dosage. I had my patient taking as high as M $\overline{LXX}$ of Tr. Stramonium alone t.i.d., and at another time M $\overline{LX}$ of Tr. Stramonium with Pilocarpin nitrate gr. 1/6 t.i.d., and eventually fixed the doses at Tr. Stramonium M $\overline{LX}$ t.i.d. with Pilocarpin nitrate gr. 1 10 b.i.d.

On these occasions at least my patient showed distinct signs and symptoms of Belladonna poisoning which took care of itself by the nausea and vomiting. In using these massive doses of Stramonium it must be remembered that if for any reason the drug is omitted for any period of time beyond a few days then it is necessary to start it with moderate doses and work up again, otherwise symptoms of Belladonna poisoning will develop.

Psychotherapy.

Unless the condition is of very recent origin, the mere administration of the above drugs is not enough. Psychotherapy in the form of exploration, persuasion, suggestion and re-education, especially with the aid of a strong willed nurse or companion; this is very important as lethargy of the body gives rise to lethargy of the mind so that tact, patience and persistency are necessary as well as firmness.

When the patient finds he is able to lead a comparatively active life without undue effort, the improvement is appreciated and a relapse is unlikely to occur, but the drugs will have to be continued permanently without any reduction in the dose.

These patients are very apt to lack initiative and accept their condition without protest, gradually losing interest in their surroundings or failing to exert their mind in any way; this is the result of the mental lethargy which follows the bodily lethargy, in spite of the fact that there may be no mental deterioration present, so that they have to be continually goaded.

The following case is a good example of many of the above mentioned points and shows what improvement may take place, even after several years.

I asked the patient to make a few notes on her condition for me, which she kindly did, so from time to time I will use her own statements. She is thirty-five, married, highly intelligent and well educated, having obtained her M.A. in Greek at eighteen years; taught for several years, then studied and taught for several years more, doing practically all of her work for a Ph.D. in Spanish when she became so helpless it was necessary to give up everything and return to her old home. I think I cannot do better at this stage than to quote her own story in full.

"I don't know when I had sleeping sickness; it may have been in 1926 when I had what was diagnosed as a 'nervous breakdown' due to overwork. This was followed by insomnia for three years. It was then, though normally active, I learned to love the bed, often cutting class in order to go home and lie down. In 1928 while on a 3,000 mile motor trip, I would sit for miles with a what, I understand, was a very dumb expression on my face and my mouth wide open. This was the first time this phenomenon was noticed. It gradually got worse until before leaving the U. S. late in 1930 people would turn and stare at me, also at this time my eyes had begun to bother me, often having difficulty in keeping them open.

I became silent, always taciturn. I became almost mute, which may or may not be a good thing in a woman. I lost interest in everything except

detective stories. My salivation was over-abundant, I drooled painfully; my voice was a monotone, my reactions were slow and I had difficulty in enunciating; my walk, I am told, was peculiar; I couldn't swing my arms.

This then was my chronic state, mouth wide open, and eyes tightly closed, being unable to open them for more than a second at a time. As I was continually fighting to keep them open it gave the appearance of blinking. On an average of once a week my eyes would become wide open, fixed and staring; this would last until the next day. This was psychological as any emotion would bring it on.

To show my lack of co-ordination, I would have what I call pauses; when eating for instance, I would remain with my fork in the air and it would be a minute or so before my muscles would function again. All of these phenomena were accompanied by an awful feeling which I cannot describe. I can only suggest it by saying it was like an irritating of the nervous system. It was torture to sit in a chair and I was in acute discomfort all the time."

At the time I began the Stramonium the patient was spending practically all of her time in bed; it was only on rare occasions that she left her bed and then for very short periods.

She had taken some Stramonium previously about M $\overline{X}$ t.i.d. with no apparent result. This time she began with M $\overline{X}$ t.i.d. and increased $\overline{1}$ M every second day. By the time she was getting $\overline{XXV}$ M there were distinct signs of improvement, less muscular spasm and consequently less difficulty in moving in bed and getting up; the back ache was gone and the mental state was improving; where she had been rather despondent, she began to be more hopeful. When getting about M $\overline{XLV}$ she began to have some blurring of vision but no dryness of the mouth and the walk was about that of a normal person.

Due to the habit of chewing gum, which had been recommended for the dropping of the jaw, and which was difficult to get her to give up, the dryness of the mouth did not take place until the dose was over M $\overline{LX}$ and it was at this time she had symptoms of Belladonna Poisoning. The vision was blurry for a long time, but eventually cleared up and at present she can read as much as any person. The mouth was the most difficult problem, and it has only been within the last two or three months that it has been at all satisfactory, and even now when disturbed mentally her mouth will be a little troublesome, and on very rare occasions she will have a staring spell.

The expressionless face has disappeared and the voice is no longer a monotone.

She helps some with the work about the house, reads considerably, and has taken up the study of French at which she is becoming very proficient.

Her writing, which originally was very fine, has become much coarser, and at times shows evidence of some tremor of the hand.

She still prefers bed to a chair, but on an average spends eight hours out of the twenty-four up and about the house.

In short, this patient under Stramonium, Pilocaprin, and psychotherapy has come from a state of utter helplessness and hopelessness to that of a comparatively normal way of life, which has now lasted for several months and will, I expect, continue permanently.

Osteitis Deformans or Pagets Disease*

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THIS is a chronic bone disease which often leads to enlargement of the cranium and causes deformities of various other bones. It is usually accompanied by both rarefying and productive osteitis. Its etiology is unknown. The signs of inflammation sometimes present, suggest an infectious origin, but the inflammation may be secondary. The changes in the bone suggest an endocrine cause, but this has never been proven. A number of other causes have been brought forth, such as trauma, hereditary influence, syphilis, etc., but it is very uncertain what part any of these causes play in producing the disease.

In considering the pathology, the chief changes in the bones are softening, and hyperplasia in varying proportions, but leading always to marked alterations in shape. Decalcification, absorption, and sclerosis, are present at all times from the earliest recognisable stage of the disease. The long bones of the legs, notably the femurs, vertibrae and cranium are chiefly affected. In the early stages the bone is soft and vascular, but later becomes sclerosed and of ivory hardness. The outer table of the skull becomes thickened and circumference enlarged. The vertebrae undergo kyphosis and ankylosis.

The femur, tibia and fibula may undergo the most marked alterations of shape. Sometimes the deformities are symmetrical, or at times one femur or tibia may be greatly deformed. The phalanges are rarely affected. In most cases the deformities are curiously symmetrical, but there are a number of cases with the same process limited to one bone (mono osteitic type of Schlesinger).

Symptoms: Beginning in middle age, or later, examples have been seen up to 92 years. The symptoms vary greatly; enlargement of the head is often the first noted. Painless and painful cases may be recognized. In the former, only striking deformity or X-ray examination will lead to the diagnosis. In the painful cases, difficulty in the use of the limbs, stiffness of the vertebral column, and weakness may be present, which are sometimes aggravated in bad weather. Neuralgia is often complained of and in some cases, growing pains are recalled. In early cases, only a complete examination, including X-ray study and exclusion of other bone diseases will prevent error. Without these examinations "rheumatism" and other symptomatic diagnosis may satisfy the patient until a fracture or marked deformity leads to more careful study. The condition has to be differentiated from syphilitic bone disease, osteomalocia arthritis deformans, senile osteoporosis and secondary carcinoma.

The onset is invariably insidious. Attention of friends is directed to this deformity. Pain is usually the first subjective symptom. In hospital practice the condition is often discovered incidental to something else. As the condition progresses the patient finds himself easily fatigued, and notes stiffness and clumsiness in moving about. Muscle cramps are common. Failing vision

*This paper was presented at the Semi-annual Meeting Valley Medical Society, Kentville, N.S., October, 1934.

in about 50% of cases. A common thing is that the patient finds hat getting too small. Muscles show some atrophy.

X-*ray*: Not only important in diagnosis, but also tells of invasion of the skeleton.

Early stages—only proximal portion of shaft involved. There is diffuse change in entire texture of bone, normal markings lost and marrow space is generally obliterated. The bone is enlarged and bowed evenly from end to end and there is an extreme amount of lime salts deposited near the periostium. There is a 'tangled skein' appearance due to a generalized rarefaction and ossification present.

Diagnosis: The diagnosis is never very difficult. In Acromegally the soft parts affected; in Osteomalacia the X-ray appearance different and chiefly affects pelvic bones. There is no curving, and outstanding feature is atrophy. No cranial lesions are present.

In regard to the Mono-osteitic form of Pagets Disease, the condition is very often noted by physical examination only in one leg, but X-ray examination usually reveals its existence in other bones. It is probable that Pagets Disease starts in one bone and very soon extends to others, but it is rarely discovered in its incipiency.

Complications: Spontaneous fractures are fairly common—callus formation is rapid. Localized periostitis following trauma (usually of the tibia is present at some stage of the disease). Malignancy is fairly common and is usually a terminal complication. (Sarcoma).

Course and Progress: One of the most characteristic features of the disease is its chronicity. With very few exceptions, the process in the bones is steadily progressive, leading to a greater and greater deformity with the result that sooner or later the victim becomes a cripple. Athough the osteitis does not shorten life, the general disability goes along hand in hand with the growth of the deformity. The majority live to an old age. (Disease never direct cause of death).

Historical Section

TRUDEAU: HIS LIFE AND INFLUENCE ON THE TUBERCULOSIS MOVEMENT IN AMERICA

A. F. MILLER, M.D., Kentville, N. S.

DOCTOR Edward Livingstone Trudeau, of French parentage, was born in 1848 in New York City. His boyhood was spent in Paris. After his return to America, at the age of twenty, he took up the study of medicine at Columbia University, New York, from which he received his degree in 1871. Two years later, on account of ill health, he was advised to consult a prominent New York physician who, following his examination, informed Trudeau that he was suffering from pulmonary tuberculsois. The news was a great shock to him, and shortly afterward he was ordered to leave for South Carolina. He was advised to live out-of-doors, and for exercise to ride as much as possible on horseback. His health failed to improve under this vigorous plan of treatment, and three months afterward he returned to New York considerably worse off than before he went away.

Up to this time little was known about phthisis, or consumption, as it was commonly called. The medical profession took but scant interest in it, and the general public knew less about the disease save, perhaps, that it was thought to be inherited and was considered invariably to terminate fatally. There was no accepted method of treatment, and patients were sent to warmer climates in a desultory sort of fashion because they coughed, and nothing could be done for them at home. There was little hospital accommodation in these days for the consumptive sick. Most hospitals admitted a few cases of tuberculosis to their general wards when they had empty beds. The larger institutions like Bellevue and Blackwell's Island, New York, had special wards devoted to the care of the tuberculosus. Neither of these hospitals, however, were intended as treatment centres, but merely a place to which a patient might come to die. The wards were kept at an even temperature, and to prevent the patient from catching cold the windows were generally kept tightly closed.

Such was the situation in America when Trudeau broke down in health. He decided to try the Adirondack Mountains in the State of New York, where he had on one or two occasions gone for the pleasure of fishing and hunting. In the early summer of 1873 he left for Paul Smith's, an isolated guide's lodge, 42 miles from the nearest railroad. He was a desperately sick man and stretched out on a mattress to ease his aching body, he was driven by team over rough mountain and forest roads to his destination. Here began his memorable fight for health. Two summers and falls were spent in this region. Sometimes he noted improvement, at other times he felt himself slipping backward. As he had made no material progress toward recovery he determined at the end of the second fall to remain in the Adirondacks for the winter months.

He was especially fond of hunting foxes and rabbits, and as there appeared to be no prospect of winning back his health, he felt he might at least afford this pleasure as long as he was able to go about. His medical friends strongly urged him not to attempt a foolish move, as they thought, of this kind, as the treatment of tuberculosis during the cold season of the year was to keep the patient indoors in a heated room or to send him south to derive such benefit as he might from living in a warmer climate. Trudeau's wife fell in with her husband's wishes, and here in this isolated mountain district, sixty miles from the nearest doctor, and entirely cut off from the outside world, they settled down to face the rigors of an Adirondack winter. To the astonishment of them both, the winter was passed with benefit to the invalid. By the early summer his health was so improved that he decided to locate with his family at Saranac Lake.

At this time, 1876, Saranac Lake, forty-two miles from a railroad, consisted of a saw-mill, a small boarding house for guides and lumbermen, a school-house, and a dozen guides' houses. A comfortable little clapboard cottage was found, and here Trudeau was to make his home for the remaining years of his life. His time was now spent quietly in hunting, fishing, and a little general practice when he felt up to it, among the summer visitors who came to this region for health or recreation. In 1882, while reading a copy of the English Practitioner, he came across an interesting article dealing with the sanatorium treatment of pulmonary tuberculosis. This was something new. The author described the method practised by a Dr. Brehmer, a German physician, at his sanatorium in Silesia, Germany. Brehmer believed in the benefit of rest, fresh air, graded walking exercise, and close regulation of the patient's life. Through these fundamentals, he pointed out, the lives of many consumptive patients might be saved and restored again to health. It was not so much *where* the consumptive lives as *how* he lives that is of the most importance, and that the tuberculous invalid cannot be left with safety to his own devices as to the mode of life in any climate. A patient and pupil of Brehmer's, Dr. Dettweiler, had also established a sanatorium at Falkenstein, Germany, and although he followed Brehmer's principal ideas, he insisted that exercise was harmful, and that patients should remain at complete rest stretched out on a bed or cure-chair in the open air.

Trudeau was much impressed with these articles and desired exceedingly to try out this method of treatment on persons who suffered from tuberculosis. He talked the matter over with his friend, Dr. Loomis, a prominent New York physician, who was visiting Saranac Lake at this time, and explained to him the ideas he had in mind. He mentioned to him that while the rich and well-to-do could hire one of the few guides' cottages at Saranac Lake or pay them well for taking them to board, there was absolutely no place to which to go for the consumptive person of moderate means. Was it not possible to start an institution on a small scale so that these very people might have the benefit of rest and regulation of life in the mountain air of the Adirondacks. Dr. Loomis was deeply interested in a move of this kind and readily promised his backing to the scheme. Encouraged with the support of Dr. Loomis, Trudeau then approached friends and patients to help him make the undertaking a possibility. Thanks to their generous giving, he eventually collected the sum of $5,000.00. The guides of the district also gathered money among themselves, purchased sixteen acres of land and presented the deed outright to Trudeau for the object which he had in view. On a sloping hill-

side of Mount Pisgah, a mile and a half from the village of Saranac Lake, the construction of two small buildings was started in 1884. The first cottage for patients consisted of one room 14 x 18 feet, heated by a wood stove and lighted by a kerosene lamp. It gave accommodation to two patients, and cost about $400.00. It was furnished with a small covered verandah, and here Trudeau tells "After much persuasion and eloquence I persuaded my first patients, two ill-clad factory girls, to sit most of the day and rest." This building is known to-day as the "Little Red," and was the humble beginning of the great sanatorium movement in America.

Slowly the place grew. A few more patients were now applying for treatment. There was as yet no nurse nor physician to help. Trudeau had to depend on guides and lumbermen to care for the bed-ridden patients, and any old woman he could hire to look after the women patients. He had little money with which to do anything, and what he earned in practice at Paul Smith's, among the summer guests went towards the upkeep of his struggling institution. Each patient paid but $5.00 a week, a few dollars below the actual cost of his maintenance. Then a physician suffering from tuberculosis was induced to settle at the sanatorium giving what service he could for his board and lodging. This enabled Trudeau to give a little more time to practice, and an opportunity also to develop the work of expansion. His appeal for funds for new cottages met with hearty response. Rich, and also those of moderate means, contributed generously to the needs of his sanatorium. Difficulties were met and some way or other overcome. From 1894 to 1904, nine new cottages were erected. These were memorial buildings to patients who had succumbed to tuberculosis. Each cottage was complete in itself. It was electrically lighted, heated by hot water, contained bedrooms, open fireplace, bathroom, sleeping-out porch, and central living room. The cost of construction was in the neighbourhood of $5,000 to $10,000. Compare this to the outlay on the first little cottage $400.00! Then came a gift from some wealthy woman of $25,000 for a beautiful stone chapel in memory of her son; an infirmary building, at about the same cost, was given in memory of the wife of Ottis Child; a colonial library for the use of patients in memory of Mrs. Mellon's husband. From 1904 to 1914, five more memorial cottages were erected. In addition to these an open-air workshop was given by Mrs. Francis Hare to enable patients to carry on wood-work, leather work, photography, etc.; a cheque for $25,000 from some grateful friend was presented for a medical building and research laboratory; later came a physicians residence for members of the medical staff; a modern memorial infirmary; a nurses' residence and training school in memory of the late Ogden Mills. In all there were 26 cottages for patients and 14 for employees. In monetary value the sanatorium was worth $1,500,000.

The difficulty of securing funds to meet the needs of the growing institution was indeed a problem and a worry. The patients, as it has been said were charged a minimum rate of $5.00 a week, as Trudeau believed few of these persons could afford more than this sum. Unfortunately, the actual weekly cost of care came to almost twice this sum. Donations from friends and also the proceeds from summer fairs held at two of the fashionable hotels in the Adirondacks, were usually sufficient to meet the deficit now amounting to $18,000 to $29,000 a year. These low rates, which continued for twenty years, proved a blessing to many a poor tuberculous person, who otherwise would undoubtedly have passed away, had treatment not been made possible

through these means at this charitable and life saving institution. Trudeau, looking ahead, plainly saw that a time might come when it would be difficult to obtain money for a purpose such as this. He wisely decided to create an endowment fund to make his institution self-supporting. This was started somewhere back in 1888. The fund through generous giving and careful handling grew and grew. In 1914, it amounted to over $600,000. To-day, I understand, it amounts close to one million dollars.

By this time Saranac Lake had also undergone a great change. From a guides settlement it had grown to be a busy town, with a population of over 5,000 people. Churches, clubs, modern stores, schools, also a general hospital, a reception hospital, a gift from a Miss Prescott, for the care of needy consumptive persons who were acutely ill, a splendid laboratory, another gift, for the research study of tuberculosis, the first of its kind in America, were now to be found in this famous resort. Tuberculous invalids from all sections of Canada and the United States received a warm welcome from native residents in this hospitable locality. Many of these visitors built a permanent home or established themselves during their period of invalidism in the numerous boarding houses that were there for this particular purpose.

Under the impetus of Trudeau, the National Tuberculosis Association in America came into being. From a few members it was to grow into a vast organization. At this time, 1904, there were in the United States 3 state associations and 15 local associations. There were also 100 small hospitals for the care of tuberculous patients, but these for the most part were commercial and intended only for those of means. By 1926 there were 48 state associations, 1,154 local associations, 600 hospitals and sanatoria, chiefly public in nature, with 70,000 beds at the disposal of the tuberculous. All this I may say came as a direct result of the vision and labor of an invalid physician, himself a sufferer from tuberculosis.

While Trudeau's name will forever be associated with that of his sanatorium, it must not be forgotten that he was an eminent scientist as well. In his early pioneer days he managed to train himself in laboratory technique, and through the aid of homemade equipment, in a little back room of his house, he repeated many of the notable experiments of the famous Koch, who, in 1882, reported the discovery of the tubercle bacillus—the cause of tuberculosis. Trudeau also carried on other research studies of exceeding worth, the results of which are known throughout the scientific world, in the hope that he would at some time find a remedy that would not only cure tuberculosis, but prevent it as well. His dream, however, was not to be realized.

As time went by, Trudeau was compelled through ill health to take a less active part in the management of his sanatorium and in his research laboratory at Saranac Lake. Many of his interests were now shouldered by several loyal and enthusiastic physicians, in practice in Saranac Lake, who although at one time suffered from tuberculosis had regained their health through the careful advice and guidance of this great man. By 1915, his health was such as to give deep concern to his friends. His endeavour now was to finish his autobiography, which he eventually completed, and which he hoped would prove inspiring and helpful to younger men. In the closing chapters of his book he speaks of certain experiences in his own life which I shall quote:

"From my patients who have recovered I have learned much, and this contact with them has brought me rewards which are priceless to me now.

To look about me on those whom I have helped in the hour of need, and even though in a very slight degree, to have been instrumental in restoring many to health and active lives of usefulness, and to feel daily their gratitude and love, is a joyful heritage indeed, which endures in a world where all else passes away, and which brings some contentment and peace in hours of physical misery and discouragement."

"But there are other experiences, which relate to those patients at whose bedsides I have stood, who have undergone long years of enforced physical and mental suffering, and often grinding poverty as well, while they fought a fight which was from the first doomed to be a losing one for them; and their experiences have shown me glimpses of the spiritual in man, and brought me a larger and more precious message than even the gratitude and affection of those who have recovered. From these I have learned that the conquest of Fate is not by struggling against it; not by trying to escape it, but by acquiescence; that it is often through men that we come to know God; that spiritual courage is of a higher type than physical courage; and that it takes a higher type of courage to fight bravely a losing than a winning fight especially if the struggle from the first is a hopeless one, and is protracted for years."

"The victories the world acclaims and regards are the victories of success and achievement and triumph over the material forces of the universe; but the victories of the spirit, the victories of the vanquished it takes little heed of. And yet the record of the ages shows that such victories require the highest type of courage, have been as enduring as any material achievements, and still speak their message to the higher life of man, with a clearness which neither time nor the acclaim of the successful conquerors in life can dim."

This beloved and distinguished physician, under whose influence and inspiration I came to study tuberculosis, passed quietly away at his home, Saranac Lake, November, 1915, in the sixty-eighth year of his life. He now lies buried at the Church of St. John-in-the-Wilderness, at Paul Smith's. The spirit of Trudeau still prevails about the sanatorium at Saranac Lake. Time does not diminish but adds to the greatness and lustre of his name.

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HEALTH INSURANCE

THE Editors call the attention of the readers to the following resolution which was unanimously passed by the members of the Western Nova Scotia Medical Society at their annual meeting held at Yarmouth, May 27th, 1935. We understand this matter will be brought before the Executive at the Society Meeting and in all likelihood will be discussed on the floor.

"*Resolved* that our Association go on record as being strongly opposed to the present manner in which medical fees are denied Physicians for the treatment of the indigent poor; also that our Association is unanimously in favor of any form of Health Insurance which is acceptable to the majority of the members of the Nova Scotia Medical Society, having in mind the general principles covering this matter as suggested in the recent report of the Economic Committee of the Canadian Medical Association."

LOOKING BACKWARD.

WE have reached the age of, well—as someone said: "not old for a Cathedral, but well past the age when one talks of hitching his wagon to a star," and so forth. Many high hopes and some disappointments have come to most of us. We are, perhaps, beginning to see things as they are. Looking back over the many years spent in a journey through a pleasant land, as a medical practitioner, we see many pitfalls, some of which we avoided; others, we fell into. There are two, however, which should be marked plainly, so that everyone passing that way, shall have his attention drawn to the dangers therein.

The first sign should read "Sloppy Diagnosis". Snap judgments will ruin anyone, especially in his medical practice. If the young practitioner is one of those highly favored individuals who is blessed with methodical ways in doing work, he will avoid this pitfall, if he "watches his step". He will need, however, to take time to write up his cases and make sure of every diagnosis. His opinion founded on a well arranged and carefully taken history, together with a thorough physical examination, will be reliable in a great deal of his work. He will be as far ahead, many times, even if located in some remote corner of the world, as the one who has an expensively equipped, nickel-plated laboratory to confirm his findings.

If one were to say what we consider the best thing a young graduate could acquire from his medical education it would be the ability to stand on his own feet, to depend on his own interpretation of the physical signs of any case, as obtained through the five senses that nature has given him. Heart and lung conditions will be clearer to him if his percussion of the chest is good; when he can say with assurance that this thrill is presystolic in time and not something else; if he is sure in this acute abdomen that there is rigidity in the right upper rectus, the patient will be better off if his gall bladder is dealt with and not the appendix.

Often he will need to have the advantage of modern aids to extending his field of vision into the hidden recesses of the body. We believe that no present day graduate should be satisfied to begin practice without a working knowledge of a cystoscope, an opthalmoscope and a laryngoscope, and be able to read a radiographic film of the chest and stomach. He can carry these instruments around with him wherever he has an office, in the far north or anywhere in the remote places, and be independent of his city brother's facilities. He has a portable laboratory at his beck and call.

Our practitioner has now learned to depend upon himself in the examination of his cases. He has a reliable record of each, and by means of new instruments peers deeply into the mysteries of the deranged body. But he must now avoid another dangerous pitfall. This one is *too much hurry*. People have learned that he is skilful and reliable and there will be a demand for his services. Many a good man, Osler says, has been ruined by rushing around making too many calls early in his career. Of course, some are never rushed; but to most of us, if "we make a go" of it, there is a stage in professional life when we are too busy. The young man needs time to consolidate his position. He should ruminate over his experiences in reconciling theory and practice.

"A poor world this, if full of care,
You have no time to stand and stare."

He should be enthused with the ambition to be the best servant of the public that it is possible to be with his mental and physical equipment. If, unfortunately, there comes a time when a patient becomes just another source of income, he will commercialize the practice of medicine, and will exude commerce in his conversation and acts. His ambition will be a hybrid growth of selfishness on the grand old tree of the medical art; and what is more tragic our fine young graduate, after a good start and high endeavor, will be lost.

L. R. M.

MEDICAL STEWARDSHIP.

THE centenary of the death of Thomas Malthus was celebrated at Cambridge, England, recently. We are thereby reminded of his "Essay on Population" in which he desired an economy of human lives by a lower death rate and lower infant mortality, and a higher standard of living. It is probable that the impulse that he gave to the study of these problems was even more important than his own contributions to the doctrine.

Recently, too, has appeared a very interesting book from the pen of Dr. Hans Zinsser, of the Department of Bacteriology, of Harvard University.

He propounds the theory of parasitism and relates some of its effects on the course of human events. In "Rats, Lice and History," he says, "in the last analysis, man may be defined as a parasite on a vegetable, for life on the earth is an endless chain of parasitism which would lead to the complete annihilation of all living beings unless the incorruptible workers of the vegetable Kingdom renewed the supply of suitable nitrogen and carbon compounds which other living things can filch."

He elaborates his case by showing the role of infection in parasitism. "Swords and lances, arrows, machine guns and even high explosives have had far less power over the fates of the nations than the typhus louse, the plague flea, and the yellow-fever mosquito. Civilizations have retreated from the plasmodium of malaria, and armies have crumbled into rabbles under the onslaught of cholera spirilla or of dysentery and typhoid bacilli. War and conquest and that herd existence which is an accompaniment of what we call civilization have merely set the stage for these more powerful agents of human tragedy."

Then painstakingly through the years, he traces the effects of disease upon succeeding generations. The history of typhus in the World War supplies a very intersting commentary upon the relation between disease and the advance of medical science. Typhus flourished in the Serbian and Russian armies and civilian populations, and it is estimated that two or three millions of Russians died during this period. Among the other combatants, on the contrary, there were relatively very few cases owing to the employment of definite measures of prevention.

To those of us who have had the opportunity to watch certain family and community groups over a period of years, certain observations have been thrust upon us. Where the heredity and environment have been distinctly bad, there has been a definite tendency to the destruction of the group. Tuberculosis and the venereal diseases have decimated and disabled to a recognizable extent. Thus, these factors have had more or less free operation and have been the deciding element in the fitness of survival of the individual.

> "That nature. . . .
> So careful of the type she seems,
> So careless of the single life."

A great gulf lies between the idealism of the world of Malthus and the realism of the world of "Rats, Lice and History." Society now would attempt to bridge this by the application of scientific achievement. The trend of conscious effort is toward the saving of each individual in society. No matter what the birthright is to be, whether disability of body or mind, we have accepted the principle that we should safeguard and save. We see this at best in the high grade development of our general hospitals, and our attitude toward general medicine and surgery. On the contrary, we do not see it expressed in any planned attempt to relieve the misery and degradation of our rural and city slums, or in the crowded and inadequate state of our other humane institutions. Our intelligent interest seems to have compassed only part of the great principles involved.

Let us narrow the point at issue and raise the question, what is our real responsibility toward the grossly unfit? We agree that the union of two mental defectives will be followed by defective progeny. We agree that these individuals cannot employ the reasoning or restraint which should be the

endowment of the normal individual. Surely then, there must be a moral obligation on the part of the responsible to take care of the irresponsible. The economic and theoretical phases of this problem are over emphasized and irrelevant. The real problem is to help those who, through no fault of their own, are doomed with their children to endless misery unless we are far-seeing enough to aid them. I have been struck many times in reading the Gospels to find the frequent references to the attitude of the Master toward the mentally sick and how definitely he helped them. I believe that it is part of the divine purpose that scientific advance shall be used to these ends.

During the past month in a family group under observation in which the parents are both mental defectives, a daughter married to another defective has given birth to a sixth child, while a fourth illegitimate child has been born to another daughter.

With our institutions for the mentally afflicted crowded to the doors, with only a policy of segregation for a small part of our mentally defective population, what do we as the medical profession propose to do to help solve these problems? Our profession is jealous of its prerogatives, how about the responsibility in interest and leadership which is involved in this attitude?

M. R. E.

EIGHTY-SECOND ANNUAL MEETING

OF THE

Medical Society of Nova Scotia

SYDNEY, July 3rd, and 4th, 1935.

PROGRAMME

TUESDAY, JULY 2nd.

7.30 p.m. Executive Meeting, Isle Royale Hotel.

WEDNESDAY, JULY 3rd.

9.30 a.m. Registration, County Court House.
10.00 a.m. Civic Welcome by His Worship, Mayor H. F. Muggah.
Report of Executive.
Business Session.
12.30 a.m. Adjournment.
2.00 p.m. "The Nervous Child", by Gordon B. Wiswell, M.D., Halifax, N. S.
2.30 p.m. "Mental Troubles of the 5th and 6th Decades", by Dr. E. C. Menzies, New Brunswick Medical Society.
3.30 p.m. Golf.
8.00 p.m. "Arteriolar Infarction with particular reference to Cerebral Haemorrhage and Coronary Lesions", by Dr. J. C. Meakins, Montreal, Canada.
Discussion to be opened by Dr. J. R. Corston, Halifax.
Business session.

THURSDAY, JULY 4th.

9.30 a.m. "Placenta Praevia", by Dr. G. F. Dewar, Prince Edward Island Society.
10.00 a.m. "Vagaries of Development of the Umbilical Region", by Dr. Alfred T. Bazin, Montreal, Canada.
Discussion to be opened by Dr. D. W. Archibald, Sydney Mines, N. S.
11.00 a.m. Presidential Address.
Business Session.
2.30 p.m. "Genito-Urinary Tuberculosis", by Frank G. Mack, M.D., Halifax, N. S.
3.00 p.m. "Complications of Late Pregnancy", by Dr. John Fraser, Professor of Obstetrics and Gynaecology, McGill University, Montreal, Canada.
Discussion to be opened by Dr. L. M. Morton, Yarmouth, N. S.
4.00 p.m. Business Session.
4.30 p.m. Outing and buffet supper at Big Pond.

CASE REPORTS

TWIN ECTOPIC PREGNANCY

IN these two cases presented there is the possibility of concurrent Tubal Pregnancy rather than Twin Pregnancy. In one case where one of the pregnancies was ovarian the gross apearances only are considered as no microscopical examination was made—consequently there is, at once, doubt as to the proof of a true ovarian pregnancy.

They are presented as a matter of curiosity only and not for any special points in diagnosis or treatment.

Case 1. Mrs. A. W., age 33 years. Three normal childbirths. No previous abdominal operation. No history of pelvic inflammation. Complained of indefinite lower abdominal distress and brownish vaginal discharge. One missed period. Temperature and pulse not disturbed. Abdomen tender chiefly in left lower quadrant. Vaginal examination revealed a softened cervix discharging a brownish fluid. Uterus slightly enlarged and painful when moved. A mass the size of an orange was felt to the right of the uterus. It was well formed and not merely "bogginess." The mass was somewhat tender. On the left side no mass was made out but there was exquisite tenderness. On the day following the mass on the right had enlarged threefold and her distress had become much more acute—but there were no signs of "shock" or severe internal haemorrhage. Temperature 100° and pulse 90.

She was removed to hospital and laparotomy performed. The usual midline incision was made. A moderate amount of free blood was found within the abdomen. An ectopic gestation was found on the right tube which had ruptured between the layers of the right broad ligament producing a large haematoma, which was the enlarging well-formed mass felt on vaginal examination. Further examination to find the cause of the free blood within the abdomen revealed the presence of another ectopic in the left tube which had ruptured into the abdominal cavity. The usual methods of treatment were employed and recovery ensued.

Case II. Mrs. C. E., age 32. One normal childbirth several years ago. No previous abdominal operations. No history of pelvic inflammation. Had missed her last menstrual period. Complained of having had a very severe abdominal pain and "fainted."

On examination the patient was pale but not in a condition to alarm one. The abdomen was very tender and slightly rigid. Vaginal examination revealed a softened cervix and brownish-red discharge. The uterus was slightly enlarged and a distinct "bogginess" was felt in the posterior cul de sac. No mass was palpated.

She was removed to hospital with a diagnosis of Ruptured Ectopic and laparotomy performed. At operation the abdomen contained a large amount of free blood—but the condition of the patient was not alarming. In the left tube was an ectopic pregnancy which had ruptured into the general abdominal cavity. This was removed in the usual manner.

On the right side was felt a mass which when brought into the wound was found to be the right ovary almost entirely occupied by a fetal sac into which haemorrhage had taken place but there had been no rupture into the abdominal cavity. This mass along with the right tube was removed. The tube was microscopically normal. The abdomen was closed without much attempt at cleaning the blood from its cavity. No microscopical examination was made of the specimen. An easy recovery followed.

A. R. REID, M.D., Windsor.

ANURIA PSYCHIC?

School boy, age 15, not seemingly neurotic.

Family history: Negative.

Personal history: Negative. Had none of ordinary diseases of childhood.

On Jan. 15, 1935 he left home to return to school coming via Halifax where he spent the night. Arrived at school morning of the 16th. On the following morning (17th) he reported to the school nurse that he had not urinated for two days.

On examination—temperature normal; pulse, 72; heart, normal; no oedema or ascites. He complained of no pain but slight discomfort in epigastrium or as if his stomach were too full, although he had taken his usual breakfast of fruit, cereal and cup of coffee. Stated that he had not urinated since leaving home, approximately 40 hours previously.

Although bladder was not distended I catheterized him obtaining only 2 drachms, straw coloured urine not sufficient to make Sp. Gr. reading, urine showed trace of albumin, no micro. examination made.

He was given a hot bath and put to bed with hot water bags to loins. His diet was hot milk and water for first 24 hrs. three pints. In addition he was given 6 oz. fluid in his medication.

Intake (first 24 hrs.)	54 oz.	Excretion 6 oz.	Jan. 17
" (second ")	54 oz.	" 21 oz.	" 18
" (third ")	54 oz.	" 50 oz.	" 19

His urine held a trace of albumen until the 20th. Since then it has been normal in character and amount.

His medication was—

Pot. Cit	Dr. ½
Sp. Nitro. Aeth	Oz. II
Infus. Buchu. ad	Oz. VIII

Sig: Two teaspoonful q 2 h.

What was the cause of the anuria, please?

C. H. MORRIS, M.D., Windsor, N. S.

TWO TUMORS OF THE PANCREAS.

THE Pancreas lies transversely across the posterior abdominal wall behind the peritoneum. Its head is embraced by the curve of the duodenum and its tail extends to the hilum of the spleen. The main duct (Wirsung) empties into the second part of the duodenum either alone or in conjunction with the common bile duct.

Surgical conditions affecting the pancreas are: (1) Trauma. (2) Infections. (3) Tumors.

Carcinoma of the Pancreas. Of the various tumors involving the pancreas, carcinoma is the commonest type found. It is, however, not a common condition and the symptoms and physical signs are obscured, thus, a clinical diagnosis is difficult. The head of the organ is most commonly involved, but the disease may be limited to the body or to the tail. From 18,069 autopsies at the General Hospital, Vienna, there were 22 cases of cancer of the pancreas and of the 132 pancreatic tumors found in 11,472 post mortems at Milan, 127 were carcinomatous, 2 sarcomatous, 2 cystic, and one syphilloma.

Histologically three types are described:

1. A spheroidal celled carcinoma, which is the commonest arising from the acini.
2. A columnar celled type arising from the ducts.
3. A neoplastic growth taking its origin from the islets of Langerhans.

Symptomatology. True to the one characteristic of all cancer cells, there are no symptoms which would lead one directly to the organ involved, and the first complaint is jaundice. The icteric tinge is steadily progressive and late in the disease the patient takes on a mahogany color. It is the progressive nature of the jaundice that is significant. Rapid wasting is usual but such may be the case with a stone impacted in the common bile duct. Because these growths are rarely as large as the fist and usually much smaller, and because of their anatomical position it is not surprising to find no evidence of a palpable tumor in the epigastric region, and distention of the gall bladder in accordance with Courvoisier's Law is inconstant. Pain is always a late symptom and is usually not severe but a continuous discomfort, and even this is rare before the jaundice is well developed. Symptoms due to impaired function of the organ present no outstanding features. Occasionally there is a fatty diarrhoea; the stools are clay colored and contain excess of neutral fat and fatty acid crystals. Metastases in Carcinoma of the pancreas are late and rare and death is brought about by its local effect of blocking the common bile and pancreatic ducts.

The clinical diagnosis of Carcinoma of the pancreas is very difficult but depends chiefly upon the development of an intensely progressive jaundice, rapid wasting and cachexia, dilatation of the gall bladder, and the palpation of a tumor in the epigastric region under anaesthesia with the stomach empty. It must bedifferentiated from a chronic pancreatitis which will give the same picture if the common bile duct is obstructed. (b) Primary Carcinoma of the common bile duct which is a much rarer condition than carcinoma of the pancreas and is usually associated with stones in the duct and metastases are early. (c)

A gall stone completely plugging the common bile duct. (d) Metastatic involvement of the liver secondary to primary cancer of the stomach.

The chief benign tumor is the pancreatic cyst. There are several pathological types. Many give the patient no symptoms whatever and are discovered at operation or become large enough to be palpable. The cyst forms a rounded mass above the umbilicus, usually midline, is movable, but does not move on respiration. There may be no tenderness on palpation. The size may vary rapidly; becoming small due to passage of its contents into the bowel; or large, due to intracystic haemorrhage. Most commonly there is a gradual increase in size in the course of months or years. The symptoms are then, due to size, mechanical obstruction and such like.

CASE REPORTS

I

Mr. W. S., age 76, occupation, Farmer. Complaints: (1) Jaundice. (2) Pain over the left chest running down left arm. (3) Loss of weight. (4) Breathlessness on exertion. (5) Bad eyesight.

Family History: Father died of diabetes at the age of 79. Mother died of tuberculosis at the age of 50. Brothers—one died of heart trouble.

There is no history of cancer in the family.

Personal History: His eyesight had been bad for a great number of years and he is blind in the right eye and sees none too well with the left. He attributes his eye condition to sand which he got in them many years ago. Had O. D. C. with no bad effect. No operations. History negative for rheumatic fever, scarlet fever, typhoid fever, diphtheria and tonsilitis.

Present Illness: For the past three years he has been troubled with breathlessness, pain over his left chest, running down his left arm at various times. These were most noticeable when he was exerting himself, and after resting for a few days following these attacks, he would feel well for some time. During the past six months he has not been feeling so well all over; he was tired most of the time; had some pain over his chest; was more breathless on exertion and had lost about 25 lbs. weight. Up until about two months ago his appetite was as good as ever but he could notice it getting less and less all the time. About one or two hours after his meals he would get distended across the upper abdomen, but had no pain and the distention would disappear with the belching of gas after taking some soda. His bowels were regular with the use of laxatives which he had been in the habit of taking for years. Never any diarrhoea. On Feb. 1st, 1935, some one told him his eyes were yellow, but he considered that due to his eye condition above described. No nausea or vomiting; no cough, or urinary symptoms.

Examination Feb. 2, 1935, General: Medium sized, gray-haired, elderly man, who picked his way carefully as he walked because of his bad sight. Skin good color, moist, somewhat flabby.

Eyes: Blind in the right eye for years. Sight in the left eye only fair. Sclera of eyes, yellow.

Mouth: Mucous membrane, under the tongue and covering soft palate, yellow in color.

Chest: Expansion fair and equal. Percussion negative. Breath sounds diminished front and back. No rales or adventitious sounds.

Heart: Irregularity of the heart beat both in force and in rhythm. Rate—78 per minute sitting. No enlargement demonstrable. Systolic murmur maximum at the apex and transmitted through the axilla. P2 accentuated. Radial arteries fibrotic, blood pressure 168/92.

Abdomen: Somewhat distended, especially in the epigastric region. No abdominal pain or tenderness; no mass palpable.

C. N. S.: Negative. No glandular enlargements.

Lab. Test: Van den Bergh Test.

Biphasic reaction—positive.
Indirect reaction—positive.
Icterus Index—100.
Fouchet Test—Positive.

Remarks: "The appearance would point to a toxic rather than a true obstructive jaundice, but there is an obstructive as well as haemolytic element present."

Barium Gastro-intestinal series: "The stomach is high, hyper-tonic in type, and is displaced upwards and to the left by pressure. The first and second portions of the duodenum also show evidence of pressure effect with angulation. The stomach empties freely and the barium passes through the small and large intestines in a normal manner. Examination by enema shows no obstruction. The hepatic flexure is pushed downwards and lies at the level of the third lumbar spine."

Diagnosis: Carcinoma of the head of the pancreas.

Progress Notes: Rapid emaciation with increasing jaundice were the outstanding features in the progress of his condition. Of the many lotions used to allay the symptom of itching, frequent sponges with 10% solution of Magnesium Sulphate were found to be most effective. Abdominal pain never appeared. Three days before death he began coughing up blood at intervals, vomiting made its appearance and the patient became unconscious and died.

II

Malignant Cyst of Pancreas: Female aged 72 years.

March 1st Complaints: Pain in epigastrium, anorexia, vomiting, and loss of weight and strength. Previous History irrelevant, except that 15 years ago had an attack similar to the present one, which lasted three weeks. Has been in good health up until six months ago when she noticed that she did not feel as well as usual and was losing weight. Two weeks ago lost her appetite, developed nausea and a pain in the epigastrium. The pain was not severe but constant; was losing weight and strength rapidly.

Examination: The patient is a fairly stout female; no jaundice; no cachexia; skin lax showing loss of flesh; does not appear very ill.

Radial arteries are fairly soft; Pulse fair volume; no cardiac enlargement; no valvular lesion; B. P. 180/90.

The abdomen is protuberant and rounded. Tenderness in epigastrium; no tenderness over gall bladder; no enlargement of spleen; no mass palpable.

Two days later developed quite a severe pain in epigastrium and began to vomit again. A mass the size of a grape-fruit could now distinctly be felt above the umbilicus.

X-ray of stomach showed it to be smaller than normal and pushed up by the mass. A barium enema passed up to the splenic flexure easily but was slow across the transverse colon and practically stopped before reaching the hepatic flexure. This was at the point where the transverse colon lay over the lower pole of the mass.

A diagnosis of malignant cyst of the pancreas was made and operation to try and relieve the mechanical obstruction was undertaken the next morning.

On opening the abdomen using avertin anaesthetic, a large quantity of chylous fluid escaped showing obstruction of the thoracic duct by the mass giving a chylous peritonitis. There was a great deal of the meso-colon indurated and adherent to the mass which was firmly adherent to the posterior abdominal wall. A large drain was inserted and abdomen closed. The day following operation the patient developed a rapidly spreading broncho-pneumonia and died.

III

Male, aged 75 years, Complaints: Pain in stomach, indigestion, and loss of weight and strength.

Previous History: Has always been well; has never had a sick day until the present illness which definitely dates to five weeks duration. Began by having some distress in stomach after eating which was relieved by soda. Inside of two weeks he had a continuous pain in the stomach which was not influenced by either food or alkalies; began to have rapid loss of weight and strength.

The patient is an elderly man, thin; no jaundice or cachexia. The radial arteries are sclerosed. The pulse is of good volume but irregular. Blood Pressure 160/85. Chest, negative. A noticeable fullness in the epigastrium is very apparent and a hard, tender mass palpable.

Due to his age, history, and the development of persistent vomiting we made a diagnosis of carcinoma of the pyloric end of the stomach and decided to do a gastroenterostomy to relieve him.

On opening the abdomen we found a midline mass, three inches in diameter, lying below the stomach and pylorus, fixed to the posterior abdominal wall. The transverse colon was firmly adherent over the top of the mass around which there were no infiltrated tissues. We decided he had a cyst of the pancreas. Inserted a trocar into it obtaining a clear amber fluid. As the cyst and transverse colon were firmly adherent to one another, and considering the general condition of the patient, we decided to drain without trying extirpation of the cyst. We made a puncture incision through the coats of the transverse colon opposite the cyst and with a narrow blade, working through this opening we incised the adherent colon wall and cyst wall, thinking we would obtain continuous drainage through the colon. The puncture incision was purse-stringed and abdomen closed. The patient made an uneventful recovery but the danger of infection of the cyst from the colon has to be kept in mind.

G. R. MAHANEY, M.D., Granville Ferry, N. S.

I. R. SUTHERLAND, M.D., Annapolis Royal, N. S.

A CASE OF BILATERAL PNEUMOTHORAX

P. N.—Age 18 years—was admitted to the Nova Scotia Sanatorium May 13th, 1929.

Family History: One brother died of pulmonary tuberculosis in 1925.

Personal History: The patient had no complaints until November, 1927, when he noticed loss of weight and strength, and poor appetite. He was examined and advised to take the "cure," which he did for two months. He then returned to work in an office. In March, 1929, he complained of pain in his right chest and a productive cough. He reported to his physician for examination and after one month's rest at home, was sent to the Nova Scotia Sanatorium.

Examination on Admission: General physical examination, other than the chest, was negative.

Examination of the Chest: Right: The findings indicated tuberculous involvement to the level of the 3rd rib and 5th vertebral spine with probable vomica formation below the clavicle. Left: The findings were within normal limits.

X-*Ray Examination of the Chest*: Right: A moderate tuberculous infiltration above the 3rd rib with possibly beginning cavity formation in the 2nd interspace. Left: A slight partially organized tuberculous infiltration in 1st and 2nd interspace.

Sputum: Positive for tubercle bacilli.

Diagnosis: Moderately advanced pulmonary tuberculosis.

Treatment and Progress: A period of rest treatment was followed, but in September, 1929, examination showed extending disease in the right lung with definite cavity formation. The condition of the left lung had improved. Pneumothorax was induced on the right side following this examination, and a collapse of the lung amounting to 60 to 70% was maintained. The patient was discharged in June, 1930, at which time his sputum was negative for tubercle bacilli and X-ray examination showed the left lung to be without definite parenchymatous disease.

He was re-admitted November, 1930. Examination of the chest revealed a satisfactory collapse of the right lung, but definite tuberculous disease in the left, extending to the level of the 3rd rib. The sputum was again positive for tubercle bacilli.

Rest treatment and slight re-expansion of the right lung were employed in an attempt to control the extending disease, but by January, 1931, a further involvement and small cavities were noted.

It was decided to induce pneumothorax on the left side, thereby creating a bi-lateral pneumothorax. This was done immediately and a 50 to 60% collapse of the right lung and 40 to 50% of the left was maintained for 3 years and 2 months.

In March, 1934, the right lung was permitted to re-expand. This was accomplished in 2 months and X-ray examination showed the presence of healed disease in the upper lobe. Collapse of the left lung was maintained until March, 1935, when re-expansion was allowed. X-ray examination showed healed tuberculous disease in the upper lobe. At the present time the patient is symptomless and working. He has no sputum.

Comment: Bi-lateral pneumothorax is becoming more widely used in the treatment of advanced tuberculosis. As a rule it is advisable to have more than one half the pulmonary tissue in each lung relatively free from disease, but this measure may be employed where extensive disease is present on one side, with a small progressive infiltration in the contra-lateral lung. It is not, however, a treatment to be employed without due consideration of all factors, especially the necessity of careful and accurate observation of the procedure until the bilateral collapse is efficient and the patient symptomless.

The case reported is of interest. In the first place the patient was a very active boy; this fact probably accounted for the extension of disease in the left lung, which occurred after leaving the Sanatorium. It is indicative of what the end result might have been to note that in each instance the disease progressed during the regular rest treatment, and further, that the sputum remained negative for tubercle bacilli only after the induction of bilateral pneumothorax. Finally, it is remarkable that during the course of treatment he was not in the least embarrassed in breathing. He worked at the Sanatorium for two years, during the first of which he had both lungs collapsed. He has now returned to his home.

C. J. W. BECKWITH, M.D., Kentville, N. S.

A CASE OF PERIPHERAL NEURITIS FOLLOWING VOMITING OF PREGNANCY.

Mrs. E. M., aged 24, was seen early in October, 1934, with vomiting of Pregnancy. Her last period was August 15, 1934. She had always been in good health and seemed to be a very bright and intelligent young woman. She was given sedatives and alkalis but did not improve and hospitalization was advised.

She was admitted Oct. 15, 1934; her tongue was clean and moist and her nutrition was good. Urine negative for acetone. She was given 60 grains of Sodium Bromide per rectum every six hours for four doses, and then 30 grains q. 6. h. for forty-eight hours. She vomited a slight amount on two occasions during the first 36 hours and then felt so well that she begged to go home. She was discharged on Oct. 21, 1934.

On going home she developed a Bromide rash but felt well for a fortnight when she began to vomit again and her nutrition suffered, her skin became dry and she asked to return to hospital.

She was readmitted on Nov. 12, 1934 with a strongly positive reaction for acetone. She was given glucose and saline intravenously and in 3 or 4 days the acetone cleared up. The patient was very apathetic and listless, however, and she was moved to a 3-bed ward where she took more interest in life and improved quickly. She expressed a very strong desire to carry through to term if possible. She was discharged Nov. 26.

On her return home she vomited occasionally, but would not eat. She began to look badly, and her pulse rate increased to 120. In December a consultation was held with a view to terminating the pregnancy, but the patient said she would die first and began to eat and had no more vomiting. However, about the 1st January she complained of numbness and burning in her hands and feet and in a few days of weakness of the grip of the hands.

Her pulse rose to 130, and the knee jerks were abolished and there was marked wasting of the calf muscles. The pain became very severe so that she could not sleep and she was slightly irrational at night. She was admitted to hospital on Jan. 14, 1935, and given castor oil, quinine and pituitrin. This proved ineffectual so on Jan. 18 under avertin anaesthesia, bougies were inserted and on Jan. 19 she passed a foetus and membranes.

Her condition began to improve and she was discharged on Jan. 29, 1935. At the present time she has regained the use of her hands, but is still unable to walk unassisted (May 20).

Peripheral Neuritis is mentioned in the text books as being occasionally associated with Vomiting of Pregnancy, but its occurrence must be rather uncommon since the above case is the only one that has been met with in the local hospital in fifteen years and none of the staff can recall a case in their experience.

H. E. KELLEY, M.D., Middleton, N. S.

OSTEITIS DEFORMANS

A male—age 60, white, farmer by occupation. Was referred for X-ray examination of the right femur.

Previous History—unimportant and there were no serious illnesses. The present condition dates back to two years ago, when he happened to observe that the lower portion of the right thigh was larger than normal. Since then he has noticed a similar disability affecting the left thigh bone. The bony changes were painless at first but, within the last year, vague pains were noted extending up and down the limbs, which he described as "rheumatic". There was no enlargement of the skull noted. Four months prior to examination he sustained a fracture of the left femur. This was set by his physician. On account of difficulty in transportation, the patient was unable to have an X-ray examination until the above date. His physician made a tentative diagnosis of osteitis deformans and wished to have it confirmed by X-ray, and also to determine the position of the fragments and amount of callus formation.

Physical Examination revealed a man of good physique. Examination was limited to the skeletae system. The cranium was not enlarged and the long bones of the upper extremities were apparently negative.

On examination of the lower extremities there was a moderate degree of bowing of the right and left femurs, especially the right. The diameters of the distal thirds of both bones were increased as well as the upper thirds of the right tibia. Clinically the fragments of the fractured femur appeared to be in good position.

X-Ray Report is as follows: The shaft of the left femur was first examined and an old transverse fracture through the middle third was seen. The fragments are in satisfactory position and alignment in both planes and there is a considerable amount of callus present. A film taken of the bony pelvis presents the following findings: The head and upper third of the right femur shows characteristic changes of osteitis deformans in as much as there is an osteoblastic condition present with increased calcium content (condensing osteitis), and just below the great trochanter there is a localized area of bone

rarefaction for a distance of four inches along the shaft. The lower third of the left femur shows considerable enlargement of the cortex with marked bony thickening. Considerable bowing of this bone is present. The descending ramus of the pubis presents a similar but less marked condition. Films taken of the skull, lower lumbar spine and pelvis show nothing abnormal.

Conclusions: Although this case has presented no great difficulty from the standpoint of diagnosis, several uncommon manifestations are to be noted. There was no enlargement of skull and the X-ray appearance was normal. The condition was chiefly limited to the femurs. It is highly probable that his symptoms were not of sufficient importance to consult his physician except for the fracture sustained, which was probably spontaneous. It is interesting to note the excellent result obtained in the reduction of this fracture.

H. R. CORBETT, M.D., Kentville, N. S.

MULTIPLE SCLEROSIS.

H. M., male, age 48—Consulted me on August 26th, 1933, for huskiness and occasional attacks of difficulty in breathing.

Laryngeal examination: Reveals a moderate sized pachydermia involving the inter-arytenoid space and extending onto the base of the right cord. There was also an abductor paralysis of both cords.

The left was in the position of complete abduction and the right, midway between complete adduction and abduction.

The limited movement of the cords leaves a very narrow glottis, which accounts for the dyspnoea, noticeable on inspiration and accompanied by laryngeal stridor.

The patient was referred to Dr. Birkett of Montreal, who passed him over to Dr. W. F. Hamilton, for a physical check-up, the result of which revealed:

1. Very much exaggerated patellar reflexes.
2. Ankle clonus.
3. Absent abdominal and cremasteric reflexes.
4. Right pupil smaller than the left.

An X-ray of his chest was negative, also the Kahn test.

A diagnosis of early and beginning Locomotor Ataxia, involving mostly the upper portion of the spinal cord, resulting in a double abductor paralysis was disgnosed.

The treatment prescribed was Iodide of Potassium, restriction of smoking, and avoidance of chill or undue exercise.

The condition gradually increased and in June, 1934, a tracheotomy was advised and refused.

Frequent attacks of acute laryngitis resulted in distressing dyspnoea and stridor.

On a further check-up in July 1934, Dr. Hamilton felt that the condition was due to multiple sclerosis, rather than locomotor ataxia.

The patient remained at work, although disabled for short periods.

Tracheotomy was persistently refused but Laryngotomy with removal of one cord was suggested, and taken under consideration by the patient.

In the meantime, on October 13th, 1934, he suffered a severe attack of dyspnoea, followed by cardiac failure and death, before an emergency tracheotomy could be performed.

I cite this case because it is an interesting and somewhat rare case of laryngeal paralysis, associated with multiple sclerosis.

J. P. McGRATH, M.D., Kentville, N. S.

SEVERANCE OF THE NOSE

N. B., male, age about 32.

This man was struck in the face by a woodman's axe, which had slipped from the latter's hands.

He was removed from the woods and taken to the hospital.

On examination it was found that the nose was completely severed from the face, midway up, by a transverse incision, and was hanging forward, attached to the upper lip; the wound extending from above, downward, and latterly into the right and left check.

The left antrum was punctured and the cut extended through the alveolus into the roof of the mouth.

Avertin anaesthesia was given. The wound was cleansed, copious bleeding stopped and as the circulation in the severed organ seemed to be sufficient it was replaced, the mucous membrane and septum were sutured in apposition with fine catgut. Large rubber tubes were used in each side as splints and the external wound closed with silk worm gut.

Drainage was placed in the antrum, through the alveolus, and into the mouth.

The rubber tubes were removed on the seventh day, and an uneventful recovery with unobstructed nasal passages took place.

J. P. McGRATH, M.D., Kentville, N. S.

*Resumé of the Health Insurance Situation in Canada

CHARLES A. WEBSTER, M.D., Yarmouth, N. S.

THE report of the Committee on Economics to the Canadian Medical Association was presented at the June 1934 meeting at Calgary. All the Committee had not had time to review it, but it represents the view of the majority.

The Canadian Medical Association does not intend to put any scheme of health insurance before the Government, but will enumerate the essential principles known to be the view of the medical profession on this question.

For some years, health insurance has occupied the attention of the Canadian Medical Association, and at the annual meetings of 29-30-31-32 reports were made.

The Executive Committee at Ottawa, November, 1932, resolved:—"That the Committee on Economics be authorized to prepare a plan or plans for health insurance, and that these be passed to the various Provincial Associations for their consideration, criticism and suggestion."

This was done and the present report prepared, and I believe all of you must have received a copy of that very detailed, able and interesting report by the Committee on Economics of the Canadian Medical Association.

I hope you have all read it, and that you may be able to give your considered views on Health Insurance and State Medicine. The report is a lengthy one of some thirty-nine pages. This question came up last summer when the Nova Scotia Medical Society met at Yarmouth, and a motion was made and passed that the Committee of the N. S. Medical Society consider Health Insurance and Social Medicine from a more local Nova Scotian aspect rather than from the general Dominion point of view, and report at the next meeting to be held at Sydney this July. At the time of the meeting at Yarmouth, the report had not been received by the doctors at large, so practically all the doctors present were not acquainted with its contents, and could not give it intelligent criticism or support.

The economic and social conditions throughout the world to-day are such, that State Medicine is very much in evidence, and the medical profession cannot ignore the subject. State Medicine will affect physicians more than any other class of people, and who but they have the information required to deal with illness and disease? Privation and starvation always lead to pestilence; and disease accompanied by poverty must be handled either by the state, or gratuitously by the medical profession.

Owing to the length of the report, I feel that it would take too long to furnish you with its contents to-night, and I know that many of you have already read it and to such, a resume would be tiresome.

Therefore, I thought I would give you some ideas of my own relating to medical practice, State Medicine, and Sickness Insurance, and there would

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be more time for discussions of this very important and timely subject. This paper will follow somewhat the line of thought given in the report.

From earliest antiquity there have been physicians. The beginnings of history show that they were members of the priesthood, as in Egypt. Anyway, they belonged to an educated class, and apparently were always held in high esteem. They developed along individualistic lines.

In Egypt, medicine and surgery reached a high degree of skill as shown by trephine scars and filled teeth. The art of embalming shows that the knowledge of anatomy must have been advanced. Whether they had a system of State Medicine and Health Insurance I have not been able to determine.

From time to time in history, distinguished physicians appear, always apparently highly individualistic in their work. Such were Aesculapius, Hippocrates, and Galen. These founded schools where students went to study and they had what corresponded to hospitals where the sick were treated.

In Egypt, Asia, Greece, and Italy, the labouring classes seem to have been mostly slaves or serfs, and must have worked for a bare subsistence, and in this respect very much resemble the labouring classes of to-day, where these classes only earn enough to pay for food, clothing, heat and shelter. The ancient physicians must have been remunerated for services to the serfs, if they had *any* pay, by the slave-owners. The feudal system was in vogue, and land was the source of wealth, and the land was held by the wealthy class, the nobles.

There seem always to have been physicians, as we read of them in the Bible and many ancient works. There could not have been very many, in proportion to the population. We have no way of knowing what they received for their services, and there is no mention of a wealthy physician in works of antiquity, although there are lots of jokes and gibes on their mistakes, their foibles, and their presumption. Nowhere in history is there any account of the people co-operating to pay for medical services.

It is only in recent times that sick or accident clubs were formed; or insurance for death, and later, insurance for illness and accidents came into being.

To-day the problem is "How to make available for everyone the full benefits of curative and preventive medicine, irrespective of the ability of the individual to pay, and, at the same time to secure the willing co-operation of the medical profession," and of the public, while at the same time, the institutions of healing and the dispensors of services are adequately remunerated.

Until recent times this was no problem. Individuals decided to study medicine, went to any college, located where they willed, and furnished medical services for fees established in that locality by long agreement and usage, which while supporting the physician and his family in comfort, yet were not excessive or beyond the means of the people in that community. In every community there would be a few wealthy persons, a large number of persons in moderate circumstances, and quite a number of persons unable to pay anything for medical services. A local doctor served all three classes. He got full pay from the few wealthy, made most of his living from the large class of persons of moderate means, and gave free services to the paupers and shiftless in his neighbourhood. There were no hospitals, few nurses, and the towns and municipalities, (except for inmates of the Poor Houses), did not recognize their responsibility for their sick poor. The doctor was expected to furnish medical care and medicines to the indigent of his community without remuneration. It was the common belief of everyone

that the physician was obliged by law to give his services upon demand, even if he knew that he would not be paid, and the finger of obloquy was pointed at him did he fail to answer such demand. To the credit of the profession seldom did this happen.

Gentlemen, this was the state of affairs in Nova Scotia almost up to the present. It was a happy time and somewhat idealistic.

No one suffered from neglect in illness, and both people and physicians lived in simple comfort. No doctors grew opulent, and comparatively few of the people were oppressed by hard-hearted demands for debt caused by illness. It was a happy economic condition. This economic condition where almost every head of a family had a job, and earned enough to pay his bills and educate his children in the common schools, was due to the equitable exchange of services. The farmer got the full dollar value for his wheat and meat with which he paid in equal value for his machines and medicines. Labour got its just share of the product of the mill, and the capitalist did not take an unjust portion of the amount charged the public for shoes or textiles. There was no occasion then for the Stevens Commission.

"Old times are changed, old manners gone" and things are not as they were! We have fallen into a state of so-called general depression. Towards the end of the last century and the beginning of this one, the population has changed from being 75% rural and 25% urban, to the reverse, or 25% rural and 75% urban. Power and machinery have increased production enormously, so that less man-power is needed on a farm or in a factory, and consequently unemployment has increased to an alarming extent. This condition has made it utterly impossible for an immense number of people to pay their bills. In fact, it has created a class of paupers walking the roads and asking for handout at our back doors, and in winter having to be supported out of the public taxes.

The question is wholly economic. It is the usual thing to blame the Great War. This, no doubt, was a factor, but not the main one. The war, the overproduction due to power and machinery, and the tariff are the three factors, with, in my opinion, the tariff the greatest cause. These three causes along with the intense nationalism, stressed in every country by the patriotic societies, and the natural selfishness of man, have produced our depression. The League of Nations said it was due to nationalism and the tariffs; the Stevens Commission said it was due to over-charging the public and underpaying the labourers.

Anyway, the depression is here in all its force. It has affected the medical profession very seriously. The doctor's bill was always the last one to be paid, and now is not being paid at all. With the community refusing to pay the costs of its sick indigents, with the great class of people in very moderate circumstances, now just one remove from the bread-line, and not employing a doctor unless actually compelled, the profession has sensed the need of the people, and the Canadian Medical Association appointed the Economic Committee to investigate the whole question, which has been done, and we have their report to help us to act wisely, in trying to bring about an arrangement in which the public gets satisfactory treatment in illness, and in which those who furnish this treatment are justly and fairly remunerated. This must be some form, either of insurance or state medicine.

The report groups the people into three classes, indigents, people in moderate circumstances, and the wealthy. It shows how the public are dissatisfied with the present high cost of medical care. It shows that the physicians are

also dissatisfied, and are not being adequately paid for their work. It points out how modern technique and apparatus has increased the cost of medical care if one gets proper treatment. It makes great use of the reports given by the Committee on the Costs of Medical Care that studied this question in the U. S. A. These reports give many figures. Sickness falls very unevenly on different families. Some have more sicknesses than others and these bear the cost. 64% of the total expenditure is paid by 20% of the families. This makes the average cost per family to be $70.00 per year, but a few families have to pay most of the cost which to these families is much more than the average of $70.00. As people cannot predict illness they cannot budget for it, and as is usual do not. Some take out insurance for sickness and accident.

In the ancient days when the crafts flourished, they banded themselves together and took care of their own sick. The Masons are a survival of a craft, and are assisting each other in times of trouble and old age, even to-day. Friendly Societies and Lodges were of later date in England and America, where cash was paid to a sick person. Now, a thrifty person takes out insurance. This increases the cost of sickness to the thrifty, as they have to pay for their own illness and contribute also in taxes for the illness of the indigents.

To some extent the state in all countries is taking action to provide medical care for its citizens, and this action is State Medicine. Army doctors have always been paid by the State. Then the State assumed the burden of its paupers. In Nova Scotia a doctor is paid a salary of $100.00 to attend the sick pensioners of a municipality. Since then Mothers' Allowances and Workmen's Compensation were assumed as State liabilities and now Old Age Pensions is the latest liability. In England, State Medicine is more advanced than in other countries, and as it is an industrial country with the bulk of its people working in factories for a wage that does not warrant an expenditure over a food and shelter basis, a crying need arose for provision for the industrial worker in sickness. In 1911, Lloyd George introduced a compulsory insurance scheme that is now in force. Every doctor has the legal right to have his name placed on the "panel". He is paid one shilling a call by the state. The people have the right to choose any doctor and the doctor is not compelled to accept any person unless he wishes. In 1912, I spent six weeks in London while this scheme was coming into force and the doctors were almost a unit against the scheme. I heard one doctor repeat a verse of poetry that showed the feeling held by them against Lloyd George. It ran:—

> "Lloyd George, no doubt, when his life ebbs out,
> Will ride in a flaming chariot;
> Seated in state on a red-hot plate,
> Between Annanias and Judas Iscariot."

In spite of this, strange to say, the scheme has proved a benefit financially to the medical men.

The report notices the French, Danish, and other European systems and gives much space to the various schemes in U. S. A. and Canada.

The Committee on the Costs of Medical Care in the U. S. A. gives both a majority and a minority report. The minority report is signed by nine of the Committee, and eight of these are physicians, which shows the critical attitude of the medical profession. The minority report says:—"There is

nothing in experience to show that it is a workable scheme, or that it would not contain evils of its own which would be worse than those it is supposed to alleviate,"

and,

"It seems to us an illustration of what is almost an obsession with many people namely, that organization can cure most, if not all, human ills,"

and

"There is nothing in our experience, nor have we been able to find anything in the Committee's studies to lead us to conclude that group practice can furnish better or cheaper medical care than we have at present."

The minority report thinks that the State should furnish care to indigents, governmental institutions like the insane hospitals and jails, the Army, Navy, etc. It says:—"The minority recommend that the corporate practice of medicine financed through intermediary agencies be vigourously and persistently opposed as being economically wasteful, inimical to a continued and sustained high quality of medical care, or unfair exploitation of the medical profession." They believe that our present institutions and agencies will in time fit existing conditions without interfering with the fundamentals of medical practice.

The Committee discussed adequate medical service and health insurance in all their phases, but there is not time for us to consider them here.

The Committee on Economics takes 16 pages to discuss these various schemes now in force in different countries, and in Part 2 gives the results of studies and reports on conditions in Canada. It divides the people into the same three classes and goes on to organized medical services:—

This takes, 1. Mental Disorders:
2. Workmen's Compensation.
3. Industrial Health Services.
4. Dominion Medical Care, which include:
   (a) War Veterans.
   (b) Pensioners.
   (c) Sick Mariners.
   (d) Lepers.
   (e) Public Health, sub-divided into
      (a) Tuberculosis.
      (b) Venereal.
      (c) Communicable.
      (d) Cancer.

It goes into the Medical Care by Industrial and Group Insurance and Benefit Societies. It considers Hospital Services and shows a woeful lack of provision for the convalescent patient and the chronic invalid and the insane. It shows the want of some provision for the narcotic addict and venereal case.

The Economic Report goes very fully into the care of indigents. It takes every province and considers them under the period of Pre-Depression and of Depression, and the Attitude of each Province.

As the boom had been first and most felt in the West, so the Depression was first and most felt in the West. Thus need of State Medicine and Aid

to the sick by the municipalities has been felt most in Western Provinces, so that experiments have been tried already in those provinces, and the Report goes very fully into these.

Poor Nova Scotia never had a boom, and has had the Depression for the last 60 years, and was in such a low state that it couldn't fall, so that now it might be said to be submerged in the depression. The Report on Nova Scotia is very short so I will give it to you in full.

"*Pre-Depression*—The Municipal Council may pay for the care of a certain number of patients as they see fit. The City of Halifax makes a grant towards the Dalhousie Public Health Clinic, which is open to all the indigent in Halifax.

Depression—There has been no change in Nova Scotia since the depression for the care of indigents.

Attitude of the Province—The situation in Nova Scotia is urgent."

In Alberta a report was made by a Legislative Committee in 1934 which states that there should be

1 physician per 1,000 population.
1 nurse " 500 "
1 dentist " 2,000 "
1 hosp. bed " 250 "

All the Reports by the various Committees in the different Countries, States and Provinces are unanimous in saying that:

1. The indigent is a responsibility of the State, both in health and sickness.
2. The patient should have the choice of physician.
3. The confidences of the patient should be sacred.
4. The services of a specialist or consultant be a question between the physician and the patient.
5. The physician be paid for services rendered.
6. Hospital facilities be available for all.
7. A hospital should not be a medical center with a full time paid medical staff but for the use of the medical profession in general.
8. No intermediate body come between the physician and the patient with power to decide any medical question.
9. The quality of service and the discipline of the physician rest with the organized medical profession.
10. (I add) that there is need of more hospital facilities in N. S., and that the different counties should be relieved of taxes to support the Victoria General Hospital in Halifax, which has become a Halifax County Hospital.

The whole question comes under our Municipal and Provincial bodies although the Federal Government can help some and has contributed to quite an extent in health services to the various provinces.

This brings it right down to a Nova Scotian matter, in fact, to a local municipal matter as far as indigents are concerned. In the case of health insurance it would be Provincial with perhaps Federal aid. Insurance premiums in the case of indigents must be paid by the public out of taxes. Indigents are classed as people who only earn enough to feed and clothe them-

selves, and have nothing over for medical services. Most people out of work are indigents, and especially so if ill.

In Nova Scotia where are the taxes coming from to meet these demands, when we find our Municipalities defaulting in their hospital bills already, and unable to sell the properties of delinquent taxpayers on account of the poverty of the people?

Gentlemen, we are just where we started, as it is an economic problem. In the midst of demand for machinery and textiles, our factories are idle because the people have no money to buy clothes. In the midst of surplus wheat and cattle, the people have no money to buy food. What has become of the money? It was shown last week that 4,000 millions were controlled by thirteen men in Canada.

The League of Nations says abolish Nationalism and tariffs, and the Stevens Commission says be less selfish and pay proper wages. I agree with them both.

These Committees have done a wonderful work in collecting these figures and schemes, an able work, but they are acting as if the depression were a permanent thing, and it will be, unless measures are taken, so that once again every head of a household can earn a comfortable living, raise his family, pay his taxes and premiums to his health insurance, and even his doctor's bill. Gentlemen, I leave the matter with you for your discussion.

A new medical compound called "atebrin musonat" is being injected into 50,000 persons suffering from malaria in Ceylon. The medicine is said to be superior to quinine because it prevents relapses. Hundreds of thousands of people in Ceylon have been stricken with the epidemic during the past few months, and the compound is regarded as a god-send.—*Kentville Advertiser*, May 9.

Cancer of the eye is now curable in virtually 100 per cent of the cases, by early surgery, the American College of Surgeons was told by John O. McReynolds, M.D., of Dallas, Texas. Cancer of the eye is not uncommon. Its progress is very rapid, a matter of months, and it has frequently caused death. It can be cured so completely, Dr. McReynolds said, because it can be seen from its very start no matter in what part of the eye it begins.—*Truro News*, May 30.

Comes High. "Sir, yours is a case which will enrich medical science."

"Oh dear! And I thought I wouldn't have to pay more than five or ten dollars."

"Did you hear Erica is marrying her X-ray Specialist?"

"Well, she's lucky; nobody else could ever see anything in her."

CANCER SECTION

The Problem of the Breast Tumour

Pre-operative Biopsy: Aspiration, Incision or Excision. Pre-operative Irradiation: By X-Rays, Radium or Both.

JOSEPH COLT BLOODGOOD, Baltimore.

LET me illustrate the essential factors in what I propose to write about by two cases.

The wife of a doctor came into the clinic a few days ago and was examined by my associate Dr. L. Clarence Cohn, who then sent her out to my home to be seen and examined by me also. We both came to the conclusion that the entire clinical picture and the examinations pointed to a benign lesion of the breast, but there was sufficient possibility of malignancy to urge that a biopsy be done at once. She was in the hospital within less than twenty-four hours, placed on the operating table, but not prepared for the complete operation, because we both agreed that should malignancy be found by aspiration or incision biopsy, pre-operative irradiation should be first given. This woman was over forty- and had observed a swelling of the left breast less than one week before. This swelling grew rapidly to a mass larger than a silver dollar. There had been no pain. This intelligent woman was very anxious to be examined at once and was somewhat annoyed at her husband for the delay of a few days. She had the proper reaction towards the first discovery of a lump in her breast—immediate action. When the examination was finished, we could classify this as a clinically doubtful case with a strong probability of malignancy. Therefore the diagnosis should be made as soon as possible so that if any sign of malignancy were found, pre-operative irradiation could be done at once.

To repeat, there were no definite signs of malignancy. If the tumour had transilluminated clearly, we could have been quite certain that it was a benign blue-domed cyst. But on transillumination it was distinctly dark, and could therefore be either a benign or a malignant tumor. The tumor fluctuated, but both benign and malignant cysts fluctuate. The most rapid form of biopsy is aspiration. The aspirating needle withdrew at once the type of fluid which could only be present in a benign cyst of the galactocele type. This fluid was studied microscopically, and there were no cancer cells. It was therefore perfectly safe to make an incision biopsy, and the tumor proved to be a thick-walled cyst of the galactocele type. Frozen sections from the wall revealed a benign lesion. For this reason the cyst only was excised, the wound closed, and no irradiation given.

This woman's mind was immediately relieved. She had to wait only one night for positive diagnosis of benignancy; and the minor operation of removal of the cyst only was done after its positive diagnosis by biopsy.

In a large majority of cases, if this had been a malignant tumor, whether solid or cystic, the diagnosis could have been made just as quickly by aspiration only, and if we had been able to recognize the aspirated cells as malignant, we would not have needed to do anything more, the patient could have been sent at once to begin irradiation preliminary to the complete operation.

There is considerable difference of opinion among experts as to how long a time should be given to this pre-operative irradiation, but they all agree that it should be thorough, cover the breast, axilla and neck, and a wide zone of chest wall around the breast. There is no necessity to discuss the difference of opinion here. My experience seems to indicate that the actual time given to this pre-operative irradiation is less important than the thoroughness of the irradiation. I still feel that ultimately the complete operation should follow in all cases still operable.

In this case I felt that the lump was too large to justify its excision for biopsy, so we made an incision into it to decide as to its nature before proceeding with the operation for a benign cyst. In smaller tumors the best thing to do is to excise them cutting through normal tissue, remove the tumor, bisect it, and make an immediate frozen section. Should the section show unmistakable malignancy, the majority of operators to-day prefer to perform the complete operation for cancer at once. A few of us have chosen, at least temporarily, to close the wound and to give the patient complete pre-operative irradiation over the axilla first, and then a week or ten days later, the complete irradiation of the breast is instituted. I have as yet no evidence as to which procedure is the best, but I seem to have sufficient evidence that there is no danger in delaying the complete operation in order to finish the irradiation, before any of the axillary tissue is disturbed by operation. If subsequent observations demonstrate that the value of pre-operative irradiation is no greater that has been observed after post-operative irradiation, it will make no difference which is done first. When the immediate examination of the completely excised palpable tumor shows it to be benign or doubtful, or the pathologist is inexperienced and unwilling to make a diagnosis, the wound should be closed, the irradiation given and the section obtained by biopsy should be sent to a number of authorities for diagnosis.

I have evidence to show that many breasts are saved by this procedure, and no woman with a definite cancer apparently loses any of her chances of a cure if the operation is performed in two stages in which the tumor is completely removed at the first stage, and the breast and chest wall operation follows in the second stage.

But it should be borne in mind that there are exceptions to every rule, and I am discussing with you now the rules and not the exceptions. When you have well thought out rules proved by experience, there are not many exceptions.

Biopsy and pre-operative irradiation are on the increase, because more women are reporting for examination within three weeks after they make the first discovery of trouble.

That this woman whose history has just been discussed, had such a large tumor which she had observed less than ten days, strongly suggested that it was benign, but we had to bear in mind that the best of women are not always accurate, many of them minimizing the duration of time.

The second case shows the difficulty of diagnosis of breast tumors, even by the most experienced. This patient had observed something in the nipple

of the left breast for almost nine months. She knew that the left nipple had become different from the right. There was no definite retraction and no ulceration. Finally she went to see an internist who examined her carefully and referred her to a surgeon who had considerable experience with breast tumors. He examined her carefully and told her to "go home and forget it". But the patient has been worrying about the nipple for months and was not content with the results of this examination. She was then referred to my clinic and was examined by my associate, Dr. Cohn, who came to his conclusion after a most careful study and sent her out to me for study. Both of us arrived at the same conclusion—that there should be an immediate biopsy, and this biopsy should consist of the excision of the nipple, the areola around the nipple and all the nipple and breast tissue beneath, continuing until a complete zone of breast tissues is removed. This is our rule now in all benign and malignant conditions of the breast involving the nipple.

This examination was made first by Dr. Cohn, December 11th, and then by Dr. Cohn and myself at my home on the same day. It was clinically a doubtful lesion of the breast in a woman aged forty-six whose youngest and only child was nineteen. Her attention had been called to the right breast one year ago by itching of the nipple. This was treated with ointment and disappeared, but reappeared and disappeared again. There is now a distinct keratosis of the right nipple, and, on palpation, something can be felt in the nipple and in the tissue beneath it. Dr. Cohn and I decided that it was important to do a biopsy to get the exact diagnosis—benign or malignant—before giving pre-operative irradiation. That day, December 11th, in the office operating room, under novocain, Dr. Cohn excised the nipple, the areola and a mass of indurated breast. The frozen sections showed definite cancer involving the nipple and the ducts beneath it. The patient was then referred at once to Dr. Burnam at the Kelly Hospital where she received a complete course of irradiation with X-rays and radium. It was decided not to do the complete operation, because experience had shown that there is no danger to wait for a secondary course of irradiation. The patient was allowed to go to Florida.

She returned in May. The wound had healed, and nothing could be palpated but a gland in the axilla. She is now receiving a second course of irradiation, and the complete operation for cancer of the breast will be performed when this is finished.

When surgery was the treatment for all breast tumors, it was a much simpler affair than now when we have irradiation with X-rays and radium, and I will try here to present a very brief statement of the methods employed by myself and my associates and an increasing number of surgeons, pathologists and roentgenologists. It is essential that members of these three definite specialties should work together to establish the diagnosis by different types of biopsy, and to institute the pre-operative irradiation, when there is definite evidence of microscopic malignancy. I also propose to make a number of definite statements which I have previously made as they were proved by this increasing experience in pre-operative irradiation for both operable and inoperable cancer of the breast, which dates back not quite four years, and an increasing experience in aspiration biopsy, incision biopsy and complete excision of the lump in the breast for immediate section.

It is surprising how many different types of lesions there are in female and male breasts. In the first place, we may divide the breast lesions into two types—clinically malignant and clinically benign. When the breast

lesion is clinically malignant an increasing number of surgeons, pathologists and radiotherapeutists have decided that the first thing to be done is irradiation with X-rays or radium. I will not discuss here the different types of irradiation or the methods. But irradiation is given before any other method of diagnosis or treatment. One is influenced by the effect of this irradiation. In some cases the next step is the method of diagnosis—some type of biopsy. This establishes whether the clinically malignant tumor is microscopically malignant or not and thus may save the patient the complete operation for cancer. It is remarkable how frequently some types of benign tumor are clinically malignant. This is especially true in lactation mastitis.

There is so much opportunity for benign and malignant conditions of the breast to appear benign when they are malignant, or malignant when they are benign, that on a number of occasions I have written and published that no woman should allow the complete operation for cancer of the breast without, first, pre-operative irradiation and some type of pre-operative biopsy, especially in doubtful cases. Second, in clinically benign breast tumors, the diagnosis should be established by some type of biopsy. In many cases the lump is of such a character that it can be completely excised by the knife for immediate biopsy. Should there be any doubt as to the diagnosis, or, if the diagnosis is distinctly malignant, it is far better to proceed with pre-operative irradiation before proceeding with the complete operation. I believe we have evidence to show that even in distinctly malignant cases there is no danger in this delay for irradiation.

Of course, the absolute proof will not be at hand until we will have observed these cases for five years. But in all the cases in my own experience in which there has been a delay of the complete operation, for pre-operative irradiation with and without biopsy, there have been no deaths which could be attributed to the delay, and we will have to wait until five years have passed for the proof that pre-operative irradiation with and without biopsy is followed by a larger per cent. of cures. Nor have I as yet the figures to show how many breast cases apparently inoperable have remained well five or more years after irradiation only, some of them associated with partial operation.

As strongly as I personally feel about the value of pre-operative irradiation and about the apparent lack of danger of delaying the complete operation for cancer for pre-operative irradiation, my evidence up to date finds no support for any type of incomplete operation for operable cancer of the breast. I have just had the tissues of such a case sent to my office. I operated upon this patient three years ago for a cancer of the right breast. The cancer was clinically malignant, not larger than a twenty-five cent piece. The patient refused the complete operation. She was given first irradiation, then excision of the lump with a good margin normal tissue. She has just consented to complete reoperation three years after the first operation, the duration of the recurrence being about one year. Nevertheless, partial excision of a cancerous lump in the breast not followed by the complete operation is not always fatal. But in my long experience, I have one definite record in which the patient is living and well to-day, five and one-half years after the excision of a cancerous lump in the breast. I saw the patient and palpated the scar about five months after the operation. Palpation was negative. The X-ray of the chest was negative, and, after discussing it with the relatively young patient we decided on trying complete irradiation and careful watching. Microscopically, there is no doubt of the diagnosis of scirrous cancer.

I must take no more time in this discussion of the rare and unusual occurrences, but let me repeat that there is no evidence to justify incomplete operations on operable cancers of the breast after pre-operative irradiation. In some older women in cases in which the general condition of the patient contraindicates the complete operation, there is no objection to trying irradiation first. A few of these patients are still living, although it is not yet five years. A few of them have died of internal metastasis. I hope to have the most recent report from Dr. Henry of Regina on his remarkable experience with irradiation with radium needles in apparently inoperable cancer of the breast, and then there is the experience of Mr. Keynes of London whose cases and reports I saw in 1932. I may be able to add to the proof of this article his later reports. But Mr. Keynes of London and Dr. Henry of Regina, and other roentgenologists in London and Canada and throughout the world are making some remarkable apparent cures by different types of irradiation in apparently inoperable cases. This chapter is still to be written, but its evidence justifies us in our conclusion that pre-operative irradiation in clinically malignant tumors and after biopsy in malignant but clinically benign tumors, is justifiable. In fact, the entire evidence suggests that it is imperative, that it offers the patient more for cancer of the breast than operative treatment no matter how well done, nor how quickly performed after the first signs and symptoms noticed by the patient. I am suggesting that the readers of this Bulletin reread in the March 1935 issue of the Nova Scotia Medical Bulletin my article on What Every Doctor Both General and Specialist Should Know About Diseases of the Female and Male Breast.

The most important thing for members of the medical profession to realize is that every man or woman warned by a lesion of the female or male breast should report within two weeks to the family physician, and there should be immediate consultation with the most experienced surgeon in the community, and the lump should be transilluminated; when there is the slightest suspicion of malignancy, the patient should go to the nearest clinic for an immediate diagnostic consultation by a surgeon, pathologist and radiologist, so that pre-operative irradiation can be begun at once, or some type of biopsy performed immediately. The greatest danger to-day is delay. This immediate conference may add to the diagnostic difficulties of the doctor, but will undoubtedly add to the greater possibility of a cure with the minimum of mutilation. I am comparing this immediate examination within the first two weeks of the warning with the advice that public health physicians are giving to mothers to-day, that is, that they must bring their children for preventive inoculation against diphtheria at the age of six months and there must be no delay after that date. The same is true after a breast lump or any breast symptom—there must be no delay after two weeks. The same is true in regard to mothers and their protection against cancer of the cervix. When they bring the young infant at six months for the protection against diphtheria, they must see their doctor who is still in charge of their recovery from childbirth, and must have the last thorough pelvic examination, and then be told to return at least twice a year to a properly selected, specially trained physician for her pelvic examinations, which should protect the mother, with the rarest exceptions, against cancer of the cervix, or cure her by the immediate application of radium should this condition have been missed in the previous examination.

Prepared for the Refresher Course Committee, Faculty of Medicine, Dalhousie University and published by the courtesy of the Medical Society of Nova Scotia.

Practical Points in the Use of the New Death Certificate*

R. D. DEFRIES and A. H. SELLERS
School of Hygiene, University of Toronto.

THE ambiguity of the questions relating to cause of death has been responsible for considerable confusion and dissatisfaction with the old medical certificate and practicing physicians as well as medical statisticians have for some time felt that a revision of the standard Canadian death certificate was necessary and a fundamental step toward improvement in accuracy of medical records. It is therefore of interest that a new Canadian certificate is now being distributed for national use by the Dominion Bureau of Statistics. The questions relating to cause of death on this certificate are essentially those on the present English form, and they embody the principles suggested by the Health Committee of the League of Nations in 1925. This new form includes all the considerations which experience has shown to be necessary in death certification.

Important Changes.

The outstanding change in the new medical certificate of death is in the form of the questions relating to the cause of death. The morbid conditions relating to death are divided on the certificate into two sections. In section 1 are those related to the "immediate cause" of death, and in section II those not causally related thereto.

In a large number of cases only one cause will need to be stated. Where this is the case the physician makes such statement under heading 1 on the first line (a). When, however, two or more are entered, the confusion which formerly arose between "cause of death" and "contributory or secondary cause," is avoided by the logical arrangement of the facts. Those other morbid conditions (if any) of which the immediate cause, entered on (a), was the consequence are recorded on lines (b) and (c) of section 1 in order of causal relationship, stating the most recent one first and then others in order. Those "other important contributory morbid conditions" which are *not* causally related to the immediate cause (a) are to be entered under section II. Entries under this section should be reserved particularly for those cases in which death was due to a combination of maladies, none of which would have been fatal alone. In such cases, the physician's judgment alone can afford guidance to the tabulator. It is emphasized that only those morbid conditions which the physician considers actually important contributory factors should be recorded.

The following examples illustrate the use of the new certificate and its value in presenting clearly the physician's opinion.

*For the Committee on the Certification of Causes of Death, Section of Vital Statistics, Canadian Public Health Association.

Example 1.

A patient in whom a diagnosis of carcinoma of large bowel had been made, was operated upon and a resection done. Erosion having occurred prior to operation, acute diffuse peritonitis developed and the patient died two weeks after operation.

As there were no "other important contributory morbid conditions" in this case, no statement under II is needed, and the certificate should read:

CAUSE OF DEATH,

I	
Immediate cause. Give disease, injury or complication which caused death, not the mode of dying, such as heart failure, asphyxia, asthenia, etc.	(a) Acute diffuse peritonitis.
Morbid conditions, if any, giving rise to immediate cause (stated in order proceeding backwards from immediate cause.)	due to (b) Carcinoma of transverse colon due to
II	(c) .....
Other morbid conditions (if important) contributing to death *but not causally related* to immediate cause.	....

Example 2.

When two or more independent morbid conditions are present, the ambiguity of the old form led to much confusion because of the varying interpretation of "cause of death" and "contributory cause" on the old form. For example, if a patient has both diabetes and tuberculosis, only the physician can decide which of these two should be recorded as cause of the death. The new certificate offers a solution of this problem by placing entirely on the physician the choice of the cause which he feels deserves tabulation as cause of death in the records. The following example illustrates these points.

A patient who had chronic nephritis developed a strangulated inguinal hernia and was operated on. Subsequent to operation, he developed bronchopneumonia and died.

Presuming that the physician felt that the chronic nephritis was an *important* contributory factor in this case and the strangulated hernia of first importance, the medical certificate of cause of death would appear as follows:

CAUSE OF DEATH.

I	
Immdiate cause. Give disease, injury or complication which caused death, not the mode of dying, such as heart failure, asphyxia, asthenia, etc.	(a) Bronchopneumonia
Morbid conditions, if any, giving rise to immediate cause (stated in order proceeding backwards from immediate cause).	due to (b) Operation. due to (c) Strangulated inguinal hernia.
II	
Other morbid conditions (if important) contributing to death *but not causally related to immediate cause.*	Chronic nethritis. .....

The significance of "due to" is largely one of time relationship, implying causation in this broad sense.

Every physician appreciates the importance of accurate mortality records, and *the statistics can never be more accurate than the statements which he makes.* If the physician clearly understands the simple principles on which the questions relating to cause of death on the new form are based, he will not only find certification of deaths simpler and more satisfactory, but he will find that it gives him the opportunity, not heretofore possible, of expressing clearly his opinion as to the cause of the death of his patient. The new medical certificate of death should provide a more accurate expression of the opinions of the medical practitioner respecting causes of death.

Present Status of Mead Johnson Vitamin A Research Award.

This award was originally established by Mead Johnson & Company January 30, 1932. "Mead Johnson & Company announces an award of $15,000 to be given to the investigator or group of investigators producing the most conclusive research on the vitamin A requirements of human beings." (See J. A. M. A., January 30, 1932, pages 14-15.)

On February 11, 1933 (J. A. M. A., pages 12-13), "At the suggestion of the Judges, a second (additional) Award of $5,000 is now offered. The basis for this enlargement is in the obvious possibility that within the time limit set (Dec. 31, 1934), no suitable evaluation of the vitamin A requirements of human beings will have appeared. On the other hand, a laboratory investigation may have been published which will point the way toward clinical evaluation."

On that date, the Judges for the award were announced:

Isaac A. Abt, Northwestern University; K. D. Blackfan, Harvard University; Alan Brown, University of Toronto; Horton R. Gasparis, Vanderbilt University; H. F. Helmholz, Mayo Clinic; Alfred F. Hess, Columbia University; E. V. McCollum, Johns Hopkins University; L. B. Mendel, Yale University; L. T. Royster, University of Virginia; and Robert A. Strong, Tulane University.

The Judges met in Detroit, April 10, 1935, and took the following action:

(1) To postpone until December 31, 1936, awarding of the main (Clinical) Award.

(2) To divide the second (Laboratory) Award, one-half to Dr. S. B. Wolbach, Harvard University, for his basic work on the pathology of avitaminosis A and his investigations on the regeneration of epithelial tissue impaired by vitamin A deficiency, and the relationship of vitamin A to the integrity of the teeth; and one-half to Dr. Karl E. Mason, Vanderbilt University, for distinguishing exactly between the pathology of avitaminosis A and avitaminosis E, and for his contribution to the quantitative relationship of vitamin A deficiency to the keratinization of germinal epithelia.

Some of this original work is still in press. As soon as it is all published, Mead Johnson & Company will make reprints available to those interested.

Checks for $2,500 each, in accordance with the decision of the Judges, were promptly mailed by Mead Johnson & Company to Dr. S. B. Wolbach and to Dr. Karl E. Mason.

Department of the Public Health

PROVINCE OF NOVA SCOTIA

Office—Metropole Building, Hollis Street, Halifax, N. S.

MINISTER OF HEALTH - - - - HON. F. R. DAVIS, M.D.,F.A.C.S., Halifax

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Divisional Medical Health Officer - -	DR. C. M. BAYNE, Sydney.
Divisional Medical Health Officer - -	DR. J. J. MACRITCHIE, Halifax.
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McNeil, J. R., New Aberdeen.
McLeod, J. K., Sydney.
O'Neil, F., Sydney (County), West Side.
Murray, R. L., North Sydney.
Townsend, H. J., Louisburg.
Gouthro, A. C., Little Bras d'Or Bridge, East Side.

COLCHESTER COUNTY

Eaton, F. F., Truro.
Havey, H. B., Stewiacke.
Johnston, T. R., Great Village (County)

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Bliss, G. C. W., Amherst.
Drury, D., Maccan (County).
Gilroy, J. R., Oxford.
Hill, F. L., Parrsboro.
Eaton, R. B., River Hebert (Joggins).
Withrow, R. R., Springhill.

DIGBY COUNTY

McCleave, J. R., Digby.
Rice, F. E., Sandy Cove (Mcpy.).
Belliveau. P. E., Meteghan.

GUYSBORO COUNTY

Chisholm, A. N., Port Hawkesbury (Mulgrave).
Sodero, G. W., Guysboro (County).
Moore, E. F., Canso.
Monaghan, T. E., Sherbrooke (St. Mary's Mcpy).

HALIFAX COUNTY

Almon, W. B., Halifax.
Forrest, W. D., Halifax (County).
Glenister, E. I., Dartmouth.

HANTS COUNTY

Bissett, E. E., Windsor.
MacLellan, R. A., Rawdon Gold Mines (East Hants Mcpy).
Reid, A. R., Windsor (West Hants Mcpy).
Shankel, F. R., Windsor (Hantsport).

INVERNESS COUNTY

MacLeod, J. R., Port Hawkesbury
Chisholm, D. M., Port Hood.
Chisholm, M., Margaree Harbour (County).
Ratchford, H. A., Inverness.

KINGS COUNTY

Bishop, B. S., Kentville.
Bethune, R. O., Berwick (Co. and Town).
deWitt, C. E. A., Wolfville.

LUNENBURG COUNTY

Marcus, S., Bridgewater (McPy.).
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.
MacMillan, J. L. Westville.
Stramberg, C. W., Trenton.
Sutherland, R. N., Pictou.
Benvie, R. M., Stellarton.

QUEENS COUNTY

Ford, T. R., Liverpool (Town and County).
Hebb, F. J., Liverpool.

RICHMOND COUNTY

Deveau, G. R., Arichat (County).

SHELBURNE COUNTY

Brown, G. W., Clark's Harbour.
Churchill, L. P., Shelburne (County).
Fuller, L. O., Shelburne.
Banks, H. H., Barrington Passage (Barrington Mcpy).
Herbin, C. A., Lockeport.

VICTORIA COUNTY

MacMillan, C. L., Baddeck (County).

YARMOUTH COUNTY

Blackadar, R. L., Port Maitland (County).
Burton, G. V., Yarmouth.
O'Brien, W. C., Wedgeport.
Siddall, A. M., Pubnico (Argyle Mcpy.).

Those physicians wishing to make use of the free diagnostic services offered by the Public Health Laboratory, will please address material to Dr. D. J. MacKenzie, Public Health Laboratory, Pathological Institute, Morris Street, Halifax. This free service has reference to the examination of such specimens as will assist in the diagnosis and control of communicable diseases; including Kahn test, Widal test, blood culture, cerebro spinal fluid, gonococci and sputa smears, bacteriological examination of pleural fluid, urine and faeces for tubercle or typhoid, water and milk analysis.

In connection with Cancer Control, tumor tissues are examined free. These should be addressed to Dr. R. P. Smith, Pathological Institute, Morris Street, Halifax.

All orders for Vaccines and sera are to be sent to the Department of the Public Health, Metropole Building, Halifax.

Report on Tissues sectioned and examined at the Provincial Pathologica Laboratory from May 1st., to June 1st., 1935.

The number of tissues sectioned is 201. In addition to this, 32 tissues from 9 autopsies were sectioned, making 224 tissues in all.

Tumours, malignant	24
Tumours, simple	6
Tumours, suspicious	0
Other conditions	162
Tissues from 9 autopsies	32
	—224

Communicable Diseases Reported by the Medical Health Officers for the month of May, 1935.

County	Cer-Spi. Meningtis	Chicken Pox	Diphtheria	Influenza	Measles	Mumps	Pneumonia	Scarlet Fever	Tbc. Plumonary	Tbc. other Forms	V. D. G.	V. D. S.	Whooping Cough	German Measles	Paratyphoid	Erysipelas	Pink Eye	Lethargic Encephalctis	TOTAL
Annapolis	..	..	..	1	13	42	..	..	..	..	1	..	2	..	..	..	..	..	59
Antigonish	..	..	..	...	...	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Cape Breton	..	1	1	2	...	..	1	..	..	..	1	10	..	1	1	..	1	..	19
Colchester	..	..	..	5	48	..	3	8	..	..	..	1	3	..	..	..	..	..	68
Cumberland	..	..	..	...	1	..	..	2	..	..	..	..	..	6	..	..	..	..	9
Digby	..	7	..	...	93	5	1	4	1	..	..	..	..	1	..	..	..	..	117
Guysboro	..	..	..	...	1	..	1	..	..	..	..	..	..	..	..	..	..	..	2
Halifax City	..	1	7	...	1	..	..	25	4	..	..	..	1	61	..	..	..	..	100
Halifax	..	..	..	...	...	..	..	..	..	..	..	..	..	2	..	..	..	..	2
Hants	..	..	..	3	...	..	1	..	..	..	..	..	..	5	..	..	..	..	9
Inverness	..	..	..	...	...	1	..	..	4	..	..	..	..	..	..	..	..	..	5
Kings	..	..	..	9	16	..	..	..	2	..	1	..	..	10	..	..	..	..	38
Lunenburg	..	1	..	...	...	..	..	2	..	..	..	..	..	..	..	..	..	..	3
Pictou	..	..	..	18	...	..	6	..	..	..	2	..	..	3	..	..	..	..	29
Queens	2	..	..	...	...	..	1	5	..	..	..	..	..	2	..	..	..	..	10
Richmond	..	..	..	...	...	...	..	..	..	..	..	..	..	..	..	..	..	..	...
Shelburne	..	..	..	8	...	...	1	..	..	..	..	..	..	17	..	..	..	..	26
Victoria	..	..	..	...	...	...	..	..	..	..	..	..	..	..	..	..	..	..	...
Yarmouth	..	..	..	...	...	...	..	3	1	..	..	..	..	..	..	..	..	..	4
TOTAL	2	10	8	46	178	48	15	49	12	..	5	11	6	108	1	..	1	..	500

Positive cases Tbc. reported by D. M. H. O's. 83.

RETURNS VITAL STATISTICS FOR APRIL, 1935.

County	Births		Marriages	Deaths		Stillbirths
	M	F		M	F	
Annapolis	12	11	9	11	12	2
Antigonish	10	11	1	14	13	1
Cape Breton	80	67	42	19	23	7
Colchester	27	21	11	15	8	2
Cumberland	22	28	17	14	10	3
Digby	22	18	5	5	7	0
Guysboro	8	6	1	9	6	0
Halifax	103	90	58	76	47	4
Hants	17	18	13	17	7	0
Inverness	19	12	6	11	12	3
Kings	10	16	13	4	4	1
Lunenburg	24	22	15	15	12	0
Pictou	21	18	24	19	13	1
Queens	14	9	9	5	14	0
Richmond	5	6	3	6	4	1
Shelburne	14	12	7	10	8	0
Victoria	7	2	2	1	4	1
Yarmouth	15	19	7	18	7	2
	430	386	243	269	211	28

Personal Interest Notes

Hotel Accommodation at Sydney.

Members of the Society who wish hotel accommodation at Sydney during the Annual Meeting are advised to book early as it is quite likely the hotels will not be able to accommodate everybody. A list of private homes, offering accommodation, with addresses and rates, will be at the registration booth and also at the Isle Royale Hotel. Dr. M. J. Macaulay is Chairman of Housing. The meeting place in Sydney will be in the County Court House, which is on Charlotte Street, north of the Post Office.

DR. WALTER C. MacKENZIE of Baddeck, and for the past year employed at the Mayo Institute at Rochester, has arrived home and plans to spend the summer in Cape Breton.

At the annual closing exercises of the City Hospital at Sydney on May 21st five nurses received their diplomas. The graduates were, Mabel Clarke of Clarkesville, Hants County; Helen M. Campbell, Pembroke, Hants County; Jean Price, New Waterford; Glen Morrison, Sydney, and Grace Davis, Windsor. Mayor Muggah of Sydney presided and the nurses were addressed by the Hon. F. R. Davis, M.D., Minister of Public Health.

Dr. and Mrs. B. I. Chiasson returned to their home at Eel Brook, Digby County, from Boston, the latter part of May.

Dr. George Cox and daughter Isabel, who have been spending the winter in Saint Petersburg, Florida, have returned to their home in New Glagow.

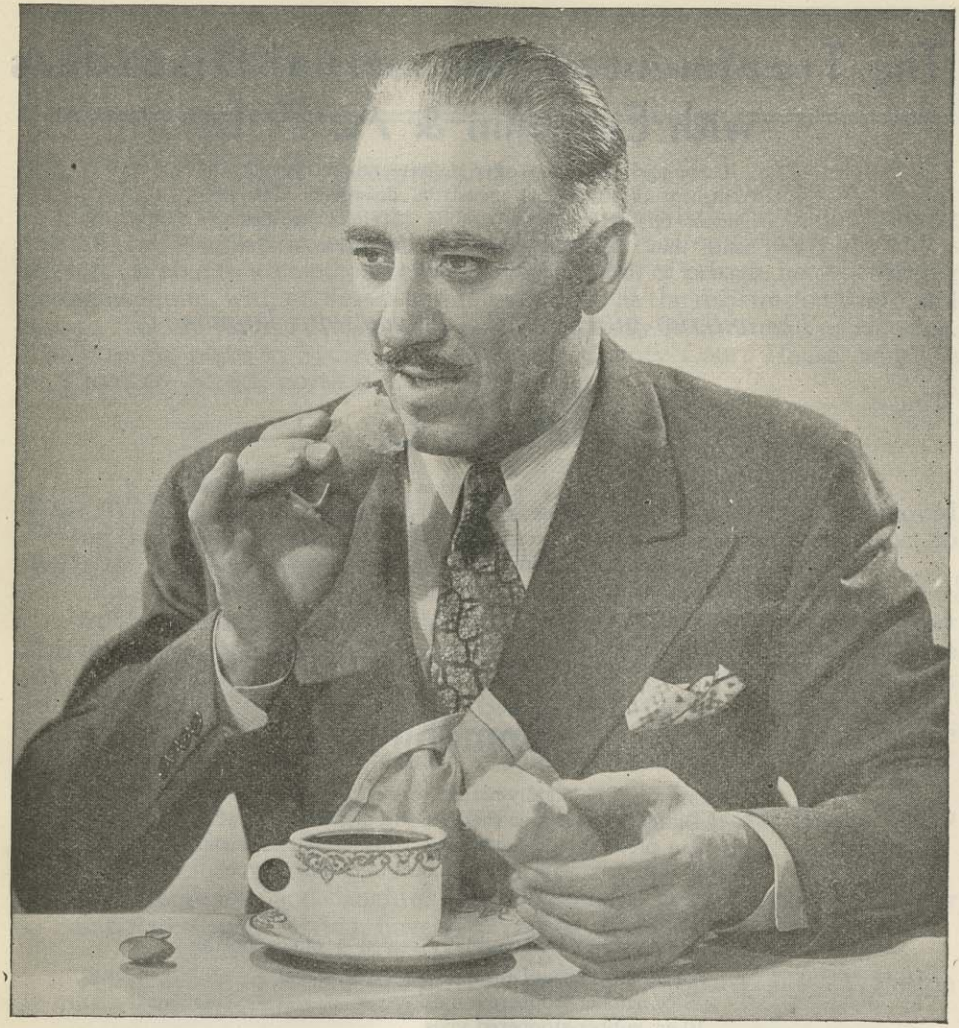
The marriage took place at Parrsboro on May 11th of Dr. J. W. T. Patton of Truro and Miss Thelma Beatrice Yorke.

Dr. C. B. Crummey of Ship Harbour, was a patient recently at the Victoria General Hospital, Halifax.

Dr. and Mrs. W. A. Hewat of Lunenburg are receiving congratulations on the birth of a daughter on Saturday, May 11th.

Dr. and Mrs. Ralph P. Smith of Halifax sailed by the Nova Scotian early in May to spend the summer visiting relatives in England.

Dr. Victor O. Mader, who has been visiting surgical clinics at Montreal, Saranac and Boston, has returned home. Dr. Mader was accompanied by Mrs. Mader.



The "Continental" Breakfast
is not suitable for a growing child

In far too many homes, a breakfast of a roll and a cup of coffee is the fare for children as well as adults. Woefully deficient in vitamins and minerals, such a meal furnishes little more than a small amount of calories. A dish of Pablum and milk, however, is just as easily prepared as a "continental breakfast," but furnishes a variety of minerals (calcium, phosphorus, iron, and copper) and vitamins (A, B, G, and E) not found so abundantly in any other cereal or breadstuff. The addition of a glass of orange juice and one Mead's Capsule of Viosterol in Halibut Liver Oil can easily build up this simple breakfast into a nourishing meal for the children of the family as well as the adult members. It is within the physician's province to inquire into and advise upon such matters, especially since Mead Products are never advertised to the public. *Servamus Fidem*, "We Are Keeping the Faith."

Pablum (Mead's Cereal pre-cooked) is a palatable cereal enriched with vitamin- and mineral-containing foods, consisting of wheatmeal, oatmeal, cornmeal, wheat embryo, alfalfa leaf, beef bone, brewers' yeast, iron salt, sodium chloride.

Please send professional card to Mead Johnson & Co. of Canada, Ltd., Belleville, Ont., when requesting samples of Mead Products to cooperate in preventing their reaching unauthorized persons.

Dr. and Mrs. A. C. Fales, who have spent the winter in the south, have returned to their home in Wolfville.

Dr. F. G. MacAskill of Glace Bay heads the Cape Breton Medical Society for 1935.

Halifax Man Elected to Fellowship in the Royal College of Surgeons, England.

Word has been received in Halifax of the election of Dr. Harry S. Morton, son of Dr. C. S. Morton of Halifax, to a fellowship in the Royal College of Surgeons, England. Dr. Morton received his M.Sc. at Dalhousie in 1927 later receiving his M.B.B.S. from London University. After obtaining his degree at London, he immediately entered on an interneship in the London Hospital. Serving in various departments he finally became Supervisor of Minor Surgery.

OBITUARY

In the passing of Dr. George Kerr Thompson, Dean of the Dental Faculty of Dalhousie University the dental profession lost one of their outstanding members. In the opinion of the medical profession he was strongly impressed with the idea of co-operation that should inspire these two professions, and his passing is regarded as a distinct loss to medical education. He died at his residence, 277 Tower Road, Halifax, May 2nd, 1935, after a brief illness. Interment took place at his former home in Annapolis Royal.

Society Meetings

THE 28th annual meeting of the Valley Medical Society was held at the Cornwallis Inn, Kentville, on May 16th. Dr. P. S. Cochrane of Wolfville presided and delivered the annual presidential address and a paper on Parkinsons Disease.

Two papers were presented on Preventive Medicine, one, "The Use of Vaccines and Sera" by Dr. A. L. McLean, of the Department of Preventive Medicine, Dalhousie University, and one on the "Public Health Aspects of Tuberculosis" by Dr. C. J. W. Beckwith of the Nova Scotia Sanatorium.

Dr. V. D. Schaffner of Kentville gave an interesting paper with report of a case on Cardiospasm.

Dr. Arthur Burns of Kentville spoke briefly on the management of the so-called functional nervous disorders.

Dr. C. E. Kinley of the staff of the Victoria General Hospital, Halifax, gave a paper illustrated with X-ray films, on non-union of fractures.

The following officers were elected for the coming year; President, Dr. L. J. Lovett, Bear River: Vice-President, (Digby), Dr. E. A. Ferguson, Weymouth: Vice-President, (Annapolis), Dr. O. R. Stone, Bridgetown: Vice-President, (Kings), Dr. H. E. Killam, Kinsman's Corner: Secretary-Treasurer, Dr. H. E. Kelley, Middleton, (re-elected): Members of the Executive of the Medical Society of Nova Scotia: Dr. P. S. Cochrane, Wolfville: Dr. John R. McCleave, Digby.

Following the business session, dinner was served at the Inn.

The annual meeting of the Colchester and East Hants Medical Society was held at Truro the last week of May.

Papers were given by Dr. Dan Murray of Tatamagouche, Dr. J. W. T. Patton of Truro, and Dr. C. E. Kinley of Halifax.

The following officers were elected: President, Dr. W. R. Dunbar, Truro; Vice-President, Dr. Dan Murray, Tatamagouche; Executive, Dr. E. M Curtis and Dr. J. W. T. Patton, Truro; Medical Society of Nova Scotia representatives, Dr. F. F. Eaton, Truro and Dr. D. F. McInnis, Shubenacadie.

The Western Nova Scotia Medical Association held their annual meeting at Yarmouth on Monday, May 27th. The following officers were elected: President, Dr. L. F. Doiron, Little Brook, Yarmouth Co.; Vice-President, Shelburne County, Dr. H. H. Banks, Barrington; Digby County, Dr. L. J. Lovett, Bear River; Yarmouth County, Dr. W. D. O'Brien, Wedgeport.

The whole meeting was given over to a discussion of a paper prepared by Dr. C. A. Webster (which is published in this edition of the BULLETIN) on the question of Health Insurance and State Medicine. The following resolution was unanimously passed:

> "Resolved that our Association go on record as being strongly opposed to the present manner in which medical fees are denied Physicians for the treatment of the indigent poor; also that our Association is unanimously in favor of any form of health insurance which is acceptable to the majority of the members of the Nova Scotia Medical Society, having in mind the general principles covering this matter as suggested in the recent report of the Economic Committee of the Canadian Medical Association."

Deciphered.

An invitation to dinner had been sent to the newly settled doctor. In reply the hostess received an absolutely illegible letter.

"I must know if he accepts or refuses," she declared.

"If I were you," suggested her husband, "I should take it to the chemist. Chemists can always read doctors' letters, however badly they are written.

The chemist looked at the slip of notepaper, went into his dispensary, and returned a few minutes later with a bottle, which he handed over the counter.

"There you are, madam," he said. "That will be three-and-sixpence."

HOPE.

(R. Emmett Buckley)

Let your laughter ripple
Tho' the skies are grey,
Clouds can't last forever,
They will pass away.
Trouble may be with you
But 'twill soon be gone—
Never saw a night yet
That didn't have a dawn.

Cares are only passing,
Each one has his pile,
Find they aren't so heavy
If you wear a smile.
Life is seldom easy
But when all is said;
Don't you know in winter
Springtime is ahead.

Dreams may all go fading,
Plans may go astray,
Still that shouldn't hold,
Block you on the way.
We are just like rivers
Flowing swift and free—
Never saw a river
That didn't reach the sea.

Never saw a road yet
That didn't have a bend.
Never saw a trouble
That didn't have an end.
Even tho' you're bearing
Care with all its smart
Keep, and you aren't beaten—
Hope within your heart.