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The Prostatic Problem

G. A. WINFIELD, M.D.

THERE is perhaps no problem more commonly known and more often met with by the general practitioner than that of the enlarged prostate. So old is this condition that its lineal ancestry probably dates from the very beginning of the human race. So universal has always been this affliction of old age that it is alluded to in Biblical writings. But although the ancients recognized the symptomatology of the disease, it was not until the middle of the sixteenth century that the actual anatomical existence of the enlarged prostate was described. Mercier in 1821 first incised the prostate for the relief of obstruction. Guthrie in 1834 is credited with the first perineal prostatectomy. McGill in 1887 is said to have performed the first suprapubic prostatectomy. The birth of the modern transurethral operation was in 1873, when Bottini first began his work, using cautery blades.

In spite of the universal occurrence of the condition, comparatively little advance was made in prostatic surgery until recent years. The laity, being quite familiar with the condition, its attendant dangers and long periods of suffering, often preferred to rely on the catheter until such a procedure became impossible. At such time the patient was often hopelessly infected and beyond surgical help.

For centuries prostatism was treated as a necessary and inevitable evil, and the required radical surgery was attempted in fear and trembling, with a resulting high mortality. Even to-day, with the advantages of modern surgery and science at hand, the mortality in radical prostatic surgery in skilled hands is said to average 15%. Much of this may be attributed to the fact that the condition occurs in old men who are at best poor operative risks. When seen by the surgeon they are usually of long standing, suffering from infection and renal impairment as a result of long continued back pressure on the kidneys.

With the advent of Urology as a specialty renewed interest was awakened in this troublesome problem, and within the past decade surprising advances have been made, both in diagnosis and surgical procedures for the relief of prostatism. At the present time over half the cases of enlarged prostate are suitable for transurethral procedures. These operations have cut the mortality to a very low figure, and have even more markedly reduced the morbidity. Also they have removed much of the horror from the condition, with the result that we now see patients earlier; younger patients with less enlargement, less cardio-renal damage, and comparative good general health, thus ensuring much more successful surgery. The outlook becomes steadily brighter. Many specialists in the larger centres have become so adept at transurethral procedures that they are attacking larger and larger glands, and several have almost abandoned the radical procedure, and attempt, with success, as many as 90% of all cases.

It is unfortunate that the cause of prostatic hypertrophy is unknown, for while it remains a mystery no prophylactic treatment can be instituted.

Benign hypertrophy is associated with senescence. Young notes that most of his patients have been married men, and that none have come from the celibate priesthood. Lower states that occupation is not a factor, nor does social status, whether married or single seem to influence it. It has been noted by many that where a previous inflammation such as gonorrhoea has existed, fibrosis and scarring with resultant atrophy of the prostate have occurred. All these theories are problematical, and as yet no solution has been found. Lower and his associates have been engaged for some years in extensive research on this problem, and their results would seem to indicate that hypertrophy of the prostate is not entirely a local condition but is closely bound up with the endocrine system. Some proof of this lies in the fact that atrophy of the prostate follows castration, or ligation of the blood supply to the testicle. It is not the purpose of this paper to enter into the various theories regarding the condition, but rather to briefly outline the clinical aspects of the problem, the various avenues of approach to diagnosis and correct interpretation of the condition, and the measures adopted during the present-day for its relief. If the writer is successful in arousing some interest in this age old subject, and perhaps removing some of the stigmata attached to it, he will be well satisfied.

All the profession are familiar with the symptomatology and to review this would be mere useless repetition. The essential point to be made is that in many cases radical surgery with its resultant heavy mortality is no longer necessary, and suitable patients can be relieved by a comparatively simple and safe procedure. The chief difficulty is in establishing the diagnosis and selecting the patient.

It has been estimated that about 60% of men past the age of fifty have some enlargement of the prostate, with retention. From the very beginning of this obstruction, changes occur in the genito-urinary tract. Due to pressure of retained urine the bladder becomes distended. In an effort to combat the increased pressure the bladder musculature thickens, and the trabeculation so common to the condition makes its appearance in the mucosa. Now, from further increased pressure weaker portions of the bladder wall may give way, with resulting formation of diverticuli, singly or multiple. Cases have been known where a diverticulum has reached a size greater than that of the bladder. In turn, some weakening of the ureteral musculature occurs, with relaxation allowing reflux of urine and producing hydronephrosis and hydronephrosis. One is frequently able to force solutions to the kidney from the bladder with very little effort. We now have the genito-urinary system dilated throughout its entire length, and devoid of tone. This in itself were bad enough, but always there is infection present. Caused in the first instance by the obstruction or trauma due to catheterization, it quickly and easily extends up the lax ureters to the kidney producing pyelitis or pyonephrosis.

Thus we have a patient cursed with frequency, dysuria, perhaps even fever and chills, who is never able to completely empty his bladder, and whose renal system is slowly becoming impaired from overdistension and infection. These last factors are perhaps more responsible than any others for the high mortality, because most deaths are due to renal or cardiac failure, or a combination of both.

Given the patient, the question now arising is "What can be done for him?" The final answer almost inevitably is Surgery, for, in spite of the countless remedies on the market for a credulous public, the fact remains that

in the first instance the cause is mechanical, obstruction, and the obvious remedy is removal of the obstruction. Frequently the patient presents himself with an acute retention. The reason is obvious. Prostatic hypertrophy is progressive. The patient experiences more and more difficulty. Then infection results, either from the obstruction and retention per se or as a result of repeated catheterization. The distended bladder is very susceptible to infection, and no matter how great the precautions taken in the procedure, sooner or later infection occurs. Acute retention may also follow exposure to cold, with resulting oedema and swelling superimposed on an already enlarged gland. This is sufficient to cause complete blockage of urine. Catheterization is indicated, perhaps even over a period of days. With adequate drainage the infection is decreased, the oedema and swelling diminish, and the patient is able to void again. The vast majority are lulled into a false sense of security. Dreading, as they do, any operative procedures, they convince themselves, that their troubles are over, and go on, the cycle recurring until a few weeks or months later another attack of acute retention occurs. This time the patient is older, his cardio-renal apparatus has suffered more damage, and he is a much poorer operative risk.

In order to determine the proper procedure in a case of prostatic obstruction, several questions must be answered. How much residual is the patient carrying? And for how long has he been carrying it? Of what type is his prostatic hypertrophy? What is the condition of his bladder as regards diverticuli? And most important of all, What is his general condition, especially from a cardio-renal point of view? To be answered properly, every available facility must be utilized.

When a patient presents himself with acute retention due to prostatic hypertrophy, with a bladder distended to the umbilicus, naturally the first thing occurring to the doctor is to relieve him, and here a word of warning is in order. While the writer is of the opinion that dangers from complete emptying of the distended bladder have perhaps been overemphasized, nevertheless, he believes that every case of retention of any standing should be emptied carefully and slowly. He has seen at least one death and many narrow escapes following sudden drainage. It is an easy matter to withdraw the urine gradually by frequent catheterization, or better still, by some type of decompression apparatus, and it is often a serious matter to combat the haemorrhage resulting from rapid drainage. The simplest type of decompression apparatus consists of an inverted Y tube of glass. One arm of the Y leads to the urethral catheter, the other to the tube draining into a bottle. This can be raised or lowered so that the urine drains at the desired speed. It should drain just slightly faster than it is excreted from the kidneys. Complete decompression may take a week, and should never take less than three days. Often cases are met with in whom it is impossible to pass a urethral catheter. In such cases, using extreme care, a catheter may be passed suprapubically into the bladder through a Lower trocar, and decompression carried out as before. Careful watch must be maintained for haemorrhage, and if this occurs drainage must be slowed, and the bladder washed clear. A double eyed catheter is of great value as a retention catheter.

By residual urine is meant not the amount of urine in the bladder at the time of catheterisation, but the amount constantly present. This is determined by having the patient void, and then passing a catheter and measuring the amount of urine obtained. Obviously this cannot at once be determined in cases of acute retention.

Having determined the residual we may now proceed to the prostate itself. Here the aid of the cystoscope is essential and should always be sought. The size of the prostate by rectal palpation is by no means an indication of the amount of intravesical prostatic intrusion, in fact the reverse may often be the case. But a valuable aid as to the type of gland present may be obtained by digital examination. If the sulcus between the two lateral lobes (median sulcus) is obliterated, in the majority of cases the obstruction is caused by the presence of an enlarged median lobe, and the case is probably suitable for transurethral procedures.

Cystoscopy is absolutely necessary in order to determine the type of hypertrophy present, and decide upon the type of operation to be done. Cystoscopy is a comparatively new procedure, but already it has gained an unenviable reputation among the laity. Painful examinations are unnecessary. Caudal anaesthesia is easily administered and is adequate in the majority of cases. If it be supplemented by mild analgesia, the patient more often than not has no unpleasant recollections of the procedure. By means of the cystoscope the bladder may be thoroughly searched for stone, tumour or diverticulum. Also the prostate may be visualized and its size and type definitely determined. Inasmuch as the orifices of diverticuli are sometimes difficult to locate, it is wise at this time to do a cystogram. This is accomplished by introducing through the cystoscope a sufficient amount of Sodium Iodide (7%-15%) to distend the bladder. An X-ray plate is then taken, usually in the anterior posterior dimension, but preferably in the lateral as well. The information obtained more than rewards the operator for his trouble. The presence and location of diverticuli are revealed, as well as any bladder tumour, and what is most important for our present purpose, the amount of prostatic intrusion is clearly seen. The question of treatment of diverticuli is in itself a separate subject, and space does not permit of its discussion here. Sufficient to say that where possible they should be excised prior to operative procedures on the prostate.

Having determined to our full satisfaction the patient's local condition, the next step is to ascertain his general condition. Blood chemistry studies must be done, as well as tests for renal function. The latter should be checked on several occasions. The results of these various investigations determine the length of the preoperative preparation. This should consist of bed rest, catheter drainage, forced fluids and the administration of a urinary antiseptic. It is essential that the urine be kept well on the acid side to prevent formation of encrustations. Intravenous glucose and saline is a valuable adjunct in lowering the blood chemistry and reestablishing a faulty kidney function. It is not always possible to bring these values to normal, but they can be stabilized at as low a level as possible. The time to undertake surgery cannot be stated absolutely for any case, and each patient must be judged on his own merits. This question is one which calls for keen judgment on the part of the surgeon. If the patient is suitable for transurethral procedures, the preoperative preparation need not necessarily be so rigid, but in any case it is well to err on the side of safety.

One important point far too often lost sight of merits mention here. I refer to the patient as an individual, and not as a case. Subjects for prostatectomy are for the most part elderly men, and apprehensive. There is, unfortunately, a tendency in large hospitals to lose sight of the patient himself, and to regard him more or less as an operation to be performed. An efficient

and interested house surgeon who will take time and trouble to carefully explain the patients problem to him, with the procedures to be undergone, and the expected results, will do much to allay his fears and to insure a happier and more co-operative patient. One excellent rule rigidly enforced by one of the great surgeons is "Never operate on a patient until he announces that he is ready for operation." The psychic side has been mentioned again and again, and perhaps even overemphasized, but the writer is of the opinion that every operative case is entitled to a clear and careful explanation of his condition. It is infinitely better to wait a day or two longer to accommodate the patient than to operate at the surgeons convenience. One might discuss this point at length, but it may be quickly summed up by saying that all operative cases, and especially elderly patients, should have their surroundings made as cheerful and pleasant as possible, so that they may build up confidence. It is a grave mistake, for example, to place a preoperative case beside a newly operated case in a ward.

There are two main procedures in vogue at present. Transurethral prostatectomy, and radical removal of the gland, either by the perineal route, or, as is more commonly done, suprapubically, in two stages. Within the last few years a wave of enthusiasm has swept the country regarding transurethral surgery. Conservative workers are of the opinion, however, that it will never entirely replace prostatectomy, and estimate that about 60% of all cases are suitable for this procedure. This percentage will undoubtedly increase with the skill and experience of the operator. The operation is not suited for the general surgeon. It calls for a knowledge of the bladder and urethra usually only possessed by urologists who are seeing large numbers of cases. Those most suited for the operation are median lobes, sclerotic median bars, and elevated bladder necks. The larger lateral or trilobar hypertrophies are better treated by the radical operation. Frequently more than one operation may be necessary by the transurethral route, but even at that it is still preferable to the radical operation in suitable cases. It is almost ideal for relief of obstruction incases of malignancy, especially when employed in conjunction with radium.

The transurethral case is usually ready for discharge 8-12 days after operation. In many cases this time is cut to a week or less. They require follow-up treatment consisting of bladder irrigations for a month or so. Relief is obtained as soon as the patient is able to void following removal of the catheter, usually about the fourth post operative day. Many carry a varying amount of residual for a few weeks, which is gradually reduced. The full benefit of the operation is not apparent for three months, by which time epithelisation of the operative bed is complete. Haemorrhage, epididymitis and infection constitute the greatest complications, and the greatest of these is haemorrhage. They are infrequent fortunately. In some 200 cases performed elsewhere the writer has seen but three cases of haemorrhage, one immediate and two delayed. None of these required operative interference or transfusion, and quickly subsided on bladder irrigations. Delayed haemorrhage usually occurs in the third week, and may be troublesome due to the filling of the bladder with clot. In most cases, as stated above, all that is necessary is bed rest and bladder irrigations using a hot solution. Infection has not been met with to any extent. Epididymitis does occur, but is seldom sufficient to cause alarm, and almost always subsides with conservative treatment. Many operators do a preliminary vasotomy, which is said to prevent

epididymitis. This is not altogether true, and cases have been observed following operation in spite of vasotomy. One operator, in addition to the vasotomy, divides the internal spermatic artery between ligatures, as it lies in the cord. This vessel is the chief blood supply to the testicle. In accordance with research on the prostatic problem, it has been found that castration results in a decrease in size of the prostate. But this operation carries with it a large psychic shock. It has been found that following ligation of the internal spermatics the same result is obtained without the shock, and an appreciable decrease in the size of the prostate has been observed as soon as two weeks after the procedure.

The radical procedure is commonly done in two stages. First a suprapubic cystotomy, followed usually in about ten days by the radical removal of the gland. The operation carries more shock, but when done under low spinal anaesthesia this is reduced to a minimum. The postoperative stay runs from three to six weeks. The chief complication to be feared here is unfortunately not preventable. I refer to pulmonary embolis. Other lesser complications include haemorrhage and infection, together with epididymitis. Many cases are slow to heal, and are left for long periods with a draining suprapubic sinus, which severely tries the patience of both the surgeon and his patient, and often proves most discouraging to the latter. It is often better to allow these patients out of bed with or without a urethral catheter depending on the case. They all close eventually, but many prove most troublesome. Occasionally it is preferable to allow the patient to go home following the first stage, with a suprapubic catheter. In these cases especially care must be taken to keep the urine acid, as the catheters rapidly become encrusted.

With advances in prostatic surgery patients become more hopeful, and cases are being seen at a much earlier date than formerly. Consequently, the mortality has been decreased as well as the morbidity. I believe the outlook for the prostatic has been made infinitely brighter, and will be even more so as further advances are made. Perhaps some of the indefatigable research workers may reach their goal and discover the cause of this most distressing ailment, thereby allowing us to institute prophylactic treatment, and in time perhaps even eradicate this most distressing condition from the human race.

Summary.

1. The clinical aspects of the prostatic problem have been briefly reviewed.
2. The necessity for complete investigation of all cases, generally, and by means of the cystoscope and X-Ray, has been pointed out.
3. The preoperative regime, with the various operative procedures have been outlined. Particular emphasis has been laid on the fact that well over half the cases of prostatic obstruction are suitable for minor transurethral operations.
4. The psychological aspect of the condition has been stressed.

REFERENCES

1. Young, Hugh H. and Davis, David M. "*Young's Practice of Urology.*" Saunders and Company, Philadelphia, 1927.
2. Lower, Wm. E. Endocrine Influence in the Production of Prostatic Hypertrophy. *American Journal of Surgery*, New Series, vol. xx No. 2, 230-253. May, 1933.

3. Lower, Wm. E. and Hicken, N. F. An experimental research by parabiosis showing the hypophyseal-gonadal influence on the growth and development of the prostate gland. *Jour. Urol.*, vol. XXVIII, No. 5, 601-606. November, 1932.
4. Lower, William E. Problems in the treatment of prostatic obstruction. *Penn. Med. Jour.*, July, 1930.
5. Engel, William J. and Lower William E. Individualizing the prostatic patient in selection of treatment. *J. A. M. A.*, 101-1361-1363. Oct. 28, 1933.
6. Bugbee, Henry G. Postoperative care of urological cases. *American Jour. Surg.*, New Series, vol. XIII, 1. 15-21. July, 1931.
7. Lower, William E. A discussion of the prostatic problem. *Urol. and Cut. Review.* vol. XXXVI, 9, 1932.

Changing Aspects of Nutrition

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THE thesis that the science of nutrition is one of the main pillars of the public health may be upheld by many facts. Yet the profession as a whole has been slow to show any interest in, or desire to apply, the established generalizations of that science. True, "diets" have been in vogue and out of vogue for centuries and the physician has used them in an empirical way for many years but rarely specifically and rationally, and frequently on faulty assumptions as to the principles involved. Fortunately the individual reacts strongly to marked errors in diet and possible harmful effects are slow to develop. Even within the profession semi-charlatanism and wild faddism have flourished to the discredit of the true science of nutrition. The latter has been expanding rapidly under the happy stimulus of a line of eminent leaders dating from the great chemist Lavoisier, of the days of the French Revolution.

It is the author's opinion that this state of affairs between the science of nutrition and the practice of medicine is rapidly changing. Diets are now being used more intelligently, notably in such conditions as obesity, diabetes, nephritis, gastric ulcer, the anaemias, tuberculosis and hyperthermias. McLester (1934) in a recent address before the American Medical Association stated, "The day was when, in order properly to nourish the sick person, the physician told him what he must not eat; now, he is told what he must eat. This changing concept of nutrition marks a great advance in clinical medicine."

The science of normal human nutrition twenty-five years ago was a simple story. It was recognized that certain determined amounts of proteins, fats and carbohydrates must be eaten in order to provide enough energy for life, growth and health. Statistical analyses of the gross consumption of foodstuffs in such cities as London, Paris and Munich provided evidence as to what the public was actually eating. The daily needs of the average man were determined to be equivalent to about three thousand calories. It was also realized that an adequate number of inorganic salts must be present in our diet, some six or seven, in proportions that were unknown. In all, the older nutrition recognized a dozen chemical elements in compound form, whether inorganic or organic, to be necessary for growth and the maintenance of life.

The difficult progress of the Great War compelled the politicians to turn for advice in matters pertaining to the feeding of nations to the physicians and physiologists. The latter found themselves in the position that no advice was frequently possible because the facts were not known. To such queries as the following there were no answers. What is the minimum daily protein requirement of the adult? What is the minimum daily calory requirement? Does quality in protein matter? Starling (1919) has summarized the problems

of that time in his little book entitled "The Feeding of Nations". The conception of vitamins in nutrition was only at that time in the process of birth. The family has been growing up since then and now numbers eight with excellent prospects of further additions. The War served as a tremendous stimulus to the intensive investigation of nutrition in its national aspects.

In the 1933 list of chemical elements issued by the International Commission on Atomic Weights there are ninety-two names. Few of these elements are to be found in relative abundance on our planet. Many of them have been shown by various types of analysis to be present in foodstuffs. The past century has been notable for the tremendous number of new substances which have been made in the laboratories of the organic chemist. It is estimated that there are now some 300,000 of them as compiled in Beilstein's *Handbuch der Organischen Chemie*. Most of these compounds have been actually *created* by man, and in so far as is known do not occur in nature. A goodly number however do. The investigator of twenty-five years ago, knowing the complexity of our foodstuffs and to a less extent of the human body, must have been a naive person to imagine that complete nutrition was achieved by protein, fat, carbohydrate and six or seven inorganic salts.

It is the purpose of this article to review relatively recent advances in our knowledge of the nutritional value of the metallic elements which are found in our diet only in traces. This has constituted a fertile field of investigation during the past ten years. The importance of iron and of iodine has been acknowledged for many years, both physiologically and clinically, although the daily requirements of the normal adult are one-fifth of a grain (0.010gm.) of iron (Sherman, 1917), and about one two thousandths of a grain of iodine or less (Fellenberg, 1923 (0.00005gm)). It will thus be readily appreciated why these substances are spoken of as "trace" elements in nutrition. And it will be evident further that estimation of such small amounts presents technical difficulties to the analyst. A recent approach to the problem of the determination of the elements essential to living matter has been made by a spectrographic analysis of the elements in specimens of human tissues obtained from post-mortem and foetal material, (Sheldon & Ramage, 1931). Sodium, potassium, calcium, magnesium, iron and copper were found in *all* tissues. The finding of this general occurrence of copper was unexpected and it was further estimated to be present in foetal liver in ten times the concentration of the maternal. Manganese was detected spasmodically but especially in liver, pancreas, kidney and adrenals. Rubidium was found widely distributed and in greatest amounts in voluntary and cardiac muscle. Such elements as silver, lead, lithium and strontium were noted occasionally. Besides the elements mentioned above aluminum, fluorine, cobalt, nickel, silver and zinc have been detected and aroused considerable investigation. Even gold has been found in traces in human blood.

Do these facts mean that *all* these elements are necessary to human nutrition? Or is the occurrence of traces of some of them merely fortuitous because of their presence in our food? The answer to these questions is naturally incomplete and requires an enormous amount of very careful experimentation on thousands of animals. The human is obligated to the services of the white rat in no small measure in solving the puzzles of nature as regards his own nutrition. Only those elements to which a satisfactory answer is attached will be discussed below. That the problem is not merely an academic one is well illustrated by the case of iodine and endemic goitre.

Aluminum—Aluminum is the most abundant metallic element in the earth's crust and has been found in a large variety of plant and animal tissues. The question of its toxicity is of importance because of the widespread use of aluminum cooking utensils and of alum baking powders. Undoubtedly small amounts must be dissolved from cooking utensils especially if alkali or sodium chloride be present. An estimate of the natural aluminum content of a week's diet for one adult consuming a good variety of ordinary American foods showed a total of 3.3 gms. of the metal (Smith, 1928). The foods richest in aluminum salts are milk and eggs, beans, potatoes and carrots, walnut and peanut meal, and beef (Kahlenberg and Closs, 1929). Analyses of human tissues from autopsy material showed aluminum in brain, heart, liver, kidney and spleen (Myers & Mull, 1928).

As to the necessity for aluminum in the dietary of animals, the evidence is mainly in the negative. In an interesting paper from the Johns Hopkins School of Hygiene and Public Health, McCollum and his colleagues, (1928), have submitted evidence based on spectrographic analyses in experiments with rats. They have found that aluminum occurs in appreciable quantities only in the integument, lungs and intestinal tract,—tissues in intimate contact with dust, dirt and foreign material in which aluminum is invariably present. From feeding experiments with young rats continued for as long as eight months no difference could be noted between those given small amounts of alum baking powder and the controls. They conclude that aluminum compounds are not absorbed when present in the diet, are not toxic when present up to 600 parts per million, and exert no deleterious action on growth, reproduction or general health of the experimental animals.

From other evidence it would seem justified to conclude that over long periods of high aluminum intake some increase in the amount in the body results, especially in the liver. This is only slowly excreted, but the toxicity is very low.

Copper—That copper is an essential constituent of the blood of many marine animals has been known since 1878 when Fredericq demonstrated it to be a constituent of haemocyanin in blood of the octopus,—analogous to the iron in haemoglobin. The role of copper, in conjunction with iron, in the important function of the production of haemoglobin in man, was first suggested by Hart and his co-workers (1928).

It has been stated that no product of either vegetable or animal matter has been found entirely free from copper. The usual amounts are extremely small. In animal tissues copper occurs in much the greatest concentration in hair, bones and liver. That infants are continually receiving small amounts of copper in their milk is proven by the analyses of Hess, Supplee and Bellis (1923), who have found 0.6—.7 mg. per kg. in commercial pasteurized milk and 0.4—0.6mg. per kg. in human milk. Furthermore they have demonstrated the presence of copper in the urine of infants and children. Our foods richest in copper are liver, salmon, shell fish, chocolate, cocoa, molasses, nuts, currants and apricots.

The function of copper in nutrition is of both physiological and clinical importance. It was first demonstrated to be effective in haemoglobin regeneration in the type of nutritional anaemia produced in young rats restricted to a milk diet. The animals usually grew well on this exclusive cow's milk diet for four to six weeks when they ceased growing, developed a bloodless appearance and died about the eighth week. The haemoglobin concentration

was reduced to 40 per cent. and the r. b. c. count to even less as compared with normal controls. Such animals obviously furnish excellent material for a critical experimental examination of the efficacy of inorganic therapy. Purified iron salts alone were found to be ineffective despite increased storage in both liver and spleen. On the addition of 0.25 mgm. copper sulphate to this diet daily the stored iron in the liver was used directly in the formation of haemoglobin and erythrocytes (Elvehjem & Sherman, 1932). The response was marked in a period of two weeks, haemoglobin percentage rising from 25 to 90. These results were of such a startling character as to stimulate immediate repetition. Thus it was shown that the anaemia produced in dogs by repeated haemorrhage and cured by treatment with the ash obtained from apricots, liver or kidney involved the administration of copper as a constituent of that ash. It was further shown however, that copper salts alone in equivalent amounts did not promote a rapid recovery. Other investigators have proved the readiness with which copper salts are excreted and that the presence of one hundred times the "normal" amount of copper in the diet is not detrimental to either young or adult rats (Cunningham, 1931). It has been suggested by various experimenters within the past two years that nickel, cobalt and manganese salts separately may supplement iron in the cure of nutritional anaemia. Suggestive papers by Stein and Lewis (1933) and Schultze (1932) record feeding experiments in which copper salts without any iron were used in the study of nutritional anaemia. Here evidence is published showing that copper has a definite *erythropoietic action* without any influence on haemoglobin formation. That the formation of pigment and stroma of the red blood cell may be two distinct processes is not difficult to conceive *a priori* and indeed is suggested already clinically in the classification of the anaemias as hyperchromic and hypochromic.

Has the nutritional anaemia of animals a counterpart in the clinic? The application of this experimental work to human anaemia is now beginning. The studies of the Medical Research Council of Great Britain as carried out by McKay (1931) claim nutritional anaemia in infancy as a clinical entity and the counterpart of chlorosis in the adult. Iron in dried milk is definitely recommended for the anaemia which was observed in both breast-fed and artificially-fed infants. The value of copper is not certain. In the experience of Maurer, Greengard and Kluver (1932) copper and iron without other therapy failed to produce remission in 50 per cent. of their cases of infantile anaemia. The subsequent addition of liver cured the condition. Copper alone or along with iron was not a potent cure for anaemia in premature infants in the experience of Schiff and Joffe (1931). Mills (1930) has found that addition of copper carbonate (0.004 gm.) to iron (4-6 gms. Bland's pills daily) is remarkably beneficial in the treatment of chronic idiopathic hypochromic anaemia (chlorosis) and his results have been confirmed by Adamson and Smith (1931), and Waugh (1931). Winthrope and Beebe (1933) in a recent review of this type of anaemia claim that the fault of the latter observers lay in the use of Bland's pills. They have found the administration of iron as 6-12 gms. of ferric ammonium citrate daily most effective and not requiring of any copper supplement.

It is apparent that the evidence at present available does not permit the direct translation of experimental results to human experience in the matter of anaemia. Nevertheless the studies of nutritional anaemia in experimental animals are contributing to a better understanding of the confused field of the clinical anaemias and to therapeutics.

Silicon—The physiology of silicon in relation to animals is a new adventure in science. Heretofore it was recognized that silica could be detected in very small amounts in most animal tissues. There was no adequate method for its estimation so that its possible function could not be investigated. It has, of course, long been known to occur in plant tissues varying from 1 per cent. of the ash in the yeast cell to 68 per cent. in wheat straw.

Recently a series of papers emanating from the Banting Institute, Toronto, by King et al. (1933) have contributed some interesting information about the occurrence of silica in normal and pathological tissues. A simple method of estimation was first devised. It was next shown that the urine of carnivorous animals was much lower in its silicon content than that from herbivorous. Herbivores ingest large amounts of silica in grains and grass so that some must be absorbed from the intestine. This has been proved experimentally in human beings. Human blood contains approximately 1 mgm. per 100cc. while that of miners with or without silicosis has considerably more. Foetal tissue contains some silica demonstrating the permeability of the placenta as well as the kidney to sodium silicate, because this must be the form in which it exists in the blood. In the case of silica entering the lungs as fine particles of dust there is no ready means of exit. Probably the majority of particles are transferred by the cilia of the bronchial passages to be later swallowed or expectorated. The smallest particles probably lodge in the alveoli and are then only eliminated by phagocytosis or by slow solution in the mildly alkaline tissue fluid. The variation in the actual content of silica of the lungs is enormous. Normal lung may be said to contain about 100 mgms. per 100 gms. of dry tissue while silicotic lung has ten fold to forty fold this amount. In individuals exposed to much dust not only the lungs but also the liver, spleen and mesenteric lymph glands are markedly increased in silica content. In animal experiments in which finely powdered quartz or neutralized sodium silicate was administered to dogs by stomach tube there was a prompt excretion of silica in the urine. Sodium silicate introduced intravenously at a very slow rate was excreted slowly and incompletely. There is at present no evidence of the biological necessity of silicon to the mammal. It would appear unlikely because of the rapidity with which it is excreted.

Fluorine—Scattered through the scientific and medical literature in several languages, there have appeared during the past fifty years numerous papers on the toxicity and physiology of the element fluorine and its components. Only within the last ten years has the serious nature of fluorine toxicity been realized. The public health aspect of fluorine appears in industrial hygiene, in agriculture and in foods. The increasing use of fluorides as insecticides in agriculture and in the home increases the importance of the problem. Chronic intoxication is well recognized and may develop on as little as 0.1 mgm. per kilo. of body weight per day, when taken by mouth. Some baking powders have been shown to contain appreciable quantities of fluoride as impurity. In animals fluorine is associated with bones and teeth especially. In one experiment a dog was fed 403 gms. of sodium fluoride over a period of 21 months. 82 per cent. was excreted in urine or faeces. Of the 65 gms. retained 92 per cent. was contained in the skeleton. This concentration of fluorine in bone is readily explained on the basis of the formation of the insoluble calcium fluoride. Animals have been reared on fluorine-free diets and found to be practically fluorine-free themselves without suffering any deleterious effect, (Sharpless and McCollum, 1933). Briefly it may be

said that the evidence at present supports the idea that fluorine plays no important biological role. Dental enamel has singly the richest store of fluorine in the body. Mottled enamel, a condition of absence of intercementing material, is very prevalent in certain sections of this continent. This has been associated with excessive amounts of fluoride in the local drinking water.

The toxicity of fluorides has been adequately explained on the basis of liberation of hydrofluoric acid in the stomach and precipitation of the calcium of the blood with consequent loss of clotting power, vasomotor paralysis, and poisoning of the respiratory centre. Salivation, vomiting, diarrhoea, are initial symptoms. Stupor and weakness develop, then tremors, convulsions and finally general paralysis with cessation of respiration. Cardiac stoppage occurs subsequently. Many cases of fatal poisoning are recorded in the literature, mostly accidental in nature, due to the use of sodium fluoride in place of baking powder.

Cobalt, Manganese and Zinc—Of a whole series of metals claimed by Myers and Beard in 1931 to act as supplements in the cure of nutritional anaemia in rats by iron-copper therapy, cobalt and manganese salts have received confirmation. It has been calculated that on well diversified menus the average daily adult intake of copper was 2.26 mgm., of manganese 2.39 mgm., and of iron 15.44 mgm. Cereals furnished most of the copper and manganese while considerable iron came from vegetables. Sherman has placed the iron requirement of the adult at about 10 mgm. a day. It is thus apparent that the amounts under consideration are extremely small. Special studies on manganese-free diets have demonstrated disturbances of the oestrus cycle, failure of development of mammary tissue, deficient lactation and degeneration of testicular epithelium. This work has not progressed to such a point as to justify clinical application.

The haemopoietic effect of cobalt has been studied as a supplement to the iron-copper treatment of nutritional anaemia by Orton, Underhill, Mugrage and Lewis (1933). The red cells increased from a normal value of 8,300,000 to 12,200,000, and the haemoglobin rose from 13.2 gm. to 18.3 mg. This marked polycythemia was produced by 0.5 mgm. of cobaltous chloride or sulphate. The same effect has been noted by Stare and Elvehjem (1933). Further developments are awaited with interest.

Zinc is very widely distributed in the plant world. In the human the total content of the average man has been estimated to be 2.2 gms.—almost as much as the total amount of iron, 2.8 gms. The largest amounts were found in bone, hair, liver, kidney and muscles. Feeding experiments have demonstrated its general lack of toxicity and the readiness of its excretion. No specific role has been attributed to it and its necessity as a nutritive element is questionable.

Colloidal Metallic Preparations—Some fifteen years ago when chemists were developing the new field of colloids this new weapon was grasped by the adventurous therapeutists with the usual conflicting results, good, bad and indifferent. At the present time the uses of colloidal preparations in practical medicine are well established. Some are still speculative. Colloidal gold has its definite position as a diagnostic tool in the examination of luetic cerebrospinal fluid. The various preparations of colloidal silver protein are in general use in the therapeutics of gonorrhoea.

The uses of colloidal iodine, antimony, arsenic, tin, iron, nickel, manganese, sulphur have all been discredited as being no more effective than the ordinary

preparations. For oral administration colloidal preparations are useless because the condition is immediately changed on entry to the stomach and the metals precipitated. An amusing instance of this was recently noted in the circulation of preparations of so-called "colloidal" tin in *solid* form for oral administration—a double fallacy, because the colloidal state would be destroyed in producing the solid and nothing absorbed.

That colloidal lead and possibly colloidal arsenic may be of some use in the treatment of inoperable malignant conditions has been suggested. In these cases intravenous administration is used.

REFERENCES

- Adamson, J. D., and Smith, F. H., *Canadian Med. Assoc. J.*, 24, 793 (1931).
 Elevehjem, C. A. and Sherman, W. C., *J. Biol. Chem.*, 98, 309 (1932).
 Fellenberg, Th. von, *Biochem. Z.*, 142, 246 (1923).
 Hart, E. B., Steenbock, H., Elvehjem, C. A. and Waddell, J., *J. Biol. Chem.*, 77, 797 (1928).
 Kahlenberg, L. and Closs, J. O., *Science*, 69, 186 (1929).
 King et al., *Biochem. J.*, 27, 990-1021 (1933).
 Mackay, H. M. M., Medical Research Council Sp. Rep. 157 (1931).
 McCollum, E. V. Rask, O. S., and Becker, J. E., *J. Biol. Chem.*, 77, 753 (1928).
 McLester, J. S., *J. Amer. Med. Assoc.*, 103, 383 (1934).
 Maurer, S., Greengard, J. and Kluver, C., *J. Amer. Med. Assoc.*, 98, 1069 (1932).
 Mills, E. S., *Canadian Med. Assoc. J.*, 22, 175 (1930).
 Myers, V. C. and Mull, J. W., *J. Biol. Chem.*, 78, 625 (1928).
 Schiff, E. and Joffe, N., *Klin. Wochschr.*, 10, 1946 (1931).
 Schultze, K. W., *Klin. Wochschr.*, 11, 497 (1932).
 Sharpless, G. R. and McCollum, E. V., *J. Nutrition*, 6, 163 (1933).
 Sheldon, J. H. and Ramage, H., *Biochem. J.*, 25, 1608 (1931).
 Sherman, H. C., Harvey Lectures, (1917-1919).
 Smith, E. E., Aluminum Compounds in Food, New York (1928).
 Starling, E. H., The Feeding of Nations, London (1919).
 Stein, H. B. and Lewis, R. C., *J. Nutrition*, 6, 465 (1933).
 Wintrobe, N. M. and Beebe, R. T., *Medicine*, 12, 187 (1933).

Entamoeba Living in Man*

By Dr. E. T. TANTON, Summerside, P. E. I.

Representative of the Prince Edward Island Medical Society.

Mr. Chairman and Gentlemen:—

With the great interest which has developed during recent years in the promotion of public health and the reduction of mortality from diseases, there has at times tended to be a wide divergence between those engaged in the care of the sick and those engaged in promoting the health of the community.

The Physician has his attention fixed on the cure of the patient under his care, while the Public Health worker is concerned only about the welfare of the entire group and often uninterested in the diagnosis or treatment of the diseased individual.

Fortunately, there is to-day a tendency to change this state of affairs and for the public health agencies and clinic, to render assistance to physicians in diagnosis and treatment, and on the other hand, for the physician to look beyond the individual patient and be actively interested in reducing the prevalence of disease in his community. It has seemed fitting, therefore, to discuss briefly to-day the question of Entamoeba living in man in the broader and particular aspects, with the purpose of calling attention to the fact that the problem of treating dysentery is probably dependent upon the careful study of the individual case, and upon the most accurate investigation of the details of the infectious process, as well as upon the execution of scientific public health measures through governmental and private agencies.

Time was, within the memory of the older physicians, when the terms "inflammation of bowels" or "enteric fever" included all varieties of dysentery, appendicitis, even typhoid fever, to say nothing of the various kinds of paratyphoid.

A very practical reason exists for the differentiation of the infecting organism, and this can be carried out with the aid of any properly equipped laboratory.

My attention was first directed to this Entamoeba question by a patient whom I sent to Montreal—a case of advanced carcinoma of the sigmoid in a man who had chronic dysenteric symptoms for three years. Report came back that he was also suffering from Entamoeba Histolytica. This led me to investigate another case in a patient 64 years old, who had abdominal cramps, bloody stools and periodic attacks of diarrhoea; and yet another case who had been at the Chicago Exhibition. Dr. Cunningham our pathologist tells me also that he has frequently found the E. Histolytica and the E. Coli in the stools of foxes, an animal very common to Eastern Canada and especially the Province of Prince Edward Island.

A great many amoeba live in man, and in this paper I shall not attempt to give a systematic account of all the species of amoeba from man, but merely

*Read at the annual meeting of the Medical Society of Nova Scotia, Yarmouth, N. S. July 5th, 1934.

to indicate the more important ones and discuss briefly amoebic dysentery in some of its clinical and other aspects that interest the busy small town or country practitioner.

The synopsis of Genera and species of amoeba living in man is as follows:—

Genus I. Entamoeba (Casagrandi 1895).

Species in Man: E. Coli.
E. Histolytica.
E. Gingivalis.

Genus II. Entolimax (Kuenen 1917), only species known, hence type E. Nana.

Genus III. Iodamoeba, only species, hence type: I bütschlii.

Genus IV. Dientamoeba, only species, hence type: D. fragilis.

Historic—Entamoeba histolytica, the dysentery of man was discovered by Losch in 1873, in the stools of a young Russian peasant named Markoff, who had come from his village in the government of Archangel, to look for work in Petrograd.

Here he contracted dysentery, and after spending about 5 months in hospital, died from an intercurrent attack of Pneumonia. Losch has left descriptions of the patient, the parasites, and the post-mortem findings, which leave no room for any doubts concerning the interpretations of his case. He states the patient suffered from "persistently relapsing dysentery, with bloody mucous stools in which large numbers of very active amoeba were often present". They measured from 20-30 as a rule, though sometimes more; and "not seldom" they contained red blood corpuscles, and occasionally leucocytes and fragments of epithelial cells. He mistook them, however, for Amoeba Coli, but his drawings indicate that he saw the organism that is now called Loeschia histolytica.

In 1891 Councilman and Lafleur introduced the term "Amoebic dysentery" and as such is named in Osler's work. Many others, of course, came into the history of this disease and Lambe in 1860 even noticed amoeba in the motions of a child suffering from diarrhoea.

Climatology—Amoebic dysentery is found throughout the tropical world and it also occurs in the temperate zone. It therefore has wide distribution and is more prevalent in the wet season, which probably means that the chance of drinking polluted water is greater at that time, though flies are also very important.

Aetiology—Entamoeba Histolytica. In the trophic stage or active stage, it ingests red blood corpuscles, lives on the destroyed submucosa of the gut. It secretes a proteolytic ferment. In the precystic stage it rests. In the cystic stage, it is quadrimucate, i.e. 4 in a capsule, chromidia present. In the active stage it is not infectious, while in the cystic stage it carries. Woodcock and Drew have shown that cysts can retain their vitality for more than a fortnight in water. Drying kills. Vegetables and flies carry. Cysts are very persistent in the sub-mucosa.

Pathology—The spores of the amoeba enter the body by drinking water, and by food contaminated by cysts, often deposited by flies and produce the young amoeba on arrival in the large bowel. The young amoeba forms enter the mucosa probably passing between the cells lining Lieberkuhn's follicles, and then entering the lymphatics make their way through the muscularis mucosae into the submucosa, where they live and feed upon tissue cells, red

cells, and perhaps leucocytes. Here they invade not merely the tissues of the submucosa, but also enter the radicles of the portal vein, and at times the branches of the mesenteric arteries, in which they cause thrombosis. From the radicles of the portal vein they may be carried to the liver, and cause hepatitis and hepatic abscess.

In the gut mucosa they induce cellular oedematous infiltration, and by the joint action of the bacteria in the gut produce ulcers, that lie in the transverse direction of the bowel.

These ulcers may deepen and lead to haemorrhage and perforation and subsequent death from toxemia, peritonitis and exhaustion in acute cases. Variation in this depends upon the host and not on the parasite. The main complication is liver abscess, usually solitary, more in the right lobe, hepatitis, etc. Abscesses may occur in spleen, salivary glands, and when it occurs in the lungs there is bloody sputum with amoeba in it.

The Morbid Anatomy—Person's body, dying from amoebic dysentery, is emaciated, and abdomen sunken. Rigor mortis passes off quickly and decomposition sets in early. The gut ulcers are covered with a dark reddish slough, edges undermined.

The spleen is usually normal, but may contain an abscess, while the liver is fatty and shows oftener one or more abscesses, and the lung, especially the right lung, may show a hepato-pulmonary abscess.

Symptoms—The symptoms of amoebic dysentery may be classified into four types, acute, chronic, latent and mixed.

In the acute type the onset is abrupt, a few days of slight diarrhoea alternating with constipation. Pain is felt in lower abdomen, which may become very severe while the motions are attended with much riping and straining—rarely exceeding 30 per day.

In the chronic stage, which may follow an acute attack, but in many cases may begin quite insidiously, the symptoms being merely those of diarrhoea, abdominal pain, frothy motions mixed with blood, the number of motions may not exceed 12 per day, while between exacerbations there may be constipation. Chronic dysentery may persist for years and cause the patient to slowly emaciate.

In the latent type, dysenteric symptoms may be absent and yet easily lead to an acute attack and to liver abscess and no doubt these amoeba carriers are the source of dissemination of the infection.

In the mixed type there is a mixed infection of amoeba histolytic and the Shiga-Kruse bacillus, and there exists, from the first, numerous motions accompanied by fever, nausea, vomiting and great constitutional disturbance.

In amoebic fever, in which there are no dysenteric symptoms and no signs of hepatitis and in which a few cysts are found in the stools, emetine induces a prompt disappearance of the fever, and may serve as a therapeutic test as potassium iodide used to do, before the Wasserman test became known, in Syphilis.

Diagnosis—The diagnosis between bacterial and amoebic dysentery by clinical phenomena only, is, in my opinion impossible, though several observers have attempted to define some differential points.

These authors state that amoebic dysentery is to be distinguished from bacillary dysentery by its chronic course, its rare pyrexia, and the absence of toxic symptoms, while it is often followed by liver abscess.

Apart from the last feature, cases do occur of amoebic dysentery with fever and toxic symptoms.

The only certain way or method of diagnosis is by the discovery of *E. histolytica* in the stools. The routine examination of stools in hospital laboratory will often settle the question, and clear up an obscure case.

Prognosis in gangrenous cases poor, better in acute, still better in mild chronic cases, but the danger of latency, after an apparent cure must be remembered. Hepatic abscesses even in the mildest case may be a sequela, and the cure induced by emetine and ipecacuanha, though striking, is often merely clinical, complete sterilization *not* being attained.

Treatment—General—Rest—Bland diet—Morphia—Hot fomentations. *Specific.* Ipecac in acute cases, emetine is more powerful, grains 3 three times a day for 10 days. Don't give too much or too long. Emetine and bismuth-iodide, in keratin coated capsules, are useful in carriers, and may induce disappearance of the cysts. Yatrin recommends 20 X sodium bicarbonate for colonic irrigation about 200 c.c. Treatment must be persistent for one year or so. Faeces should be carefully sterilized. Skin about anus may be infected. Liver abscess occurs in about 1.5 X of the cases and may cure itself. According to the statistics obtained by the Royal Victoria Hospital as a result of researches by Dr. Annie Porter amoebic dysentery in Montreal has an incidence markedly higher than typhoid fever at the present time, and the number of carriers is many more than the open cases.

To Summarize.

- (1) Amoebic Dysentery has a wide distribution beyond the Tropics.
- (2) Persistent diarrhoea bloody stools with or without fever should receive careful laboratory investigation.
- (3) It is disseminated by vegetables, fruit, water and milk, contaminated by human and animal carriers who may or may not show signs of the disease.
- (4) Clinics in hospitals and Public Health Departments can help the small town or country Doctor (Family Doctor) to diagnose the condition, and locate carriers.
- (5) Its control is largely a matter of Public Health measures.

The Nova Scotia Medical Bulletin

Official Organ of The Medical Society of Nova Scotia.

Published on the 5th of each month and mailed to all physicians and hospitals in Nova Scotia: Advertising forms close on the 15th of the preceding month. All Mss should be in the hands of the Business Editor on or before the 10th of the month. Subscription Price:—\$3.00 per year.

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VOL. XIII.

SEPTEMBER, 1934

No. 9

Dalhousie Refresher Course 1934

NEARLY a hundred of our confreres registered for this annual short course. Among them was the usual group of seniors, who have scarcely missed an attendance since the inception of the series, and an increasing number of juniors, including a sprightly group from New Brunswick, who are taking an increasingly lively interest in its proceedings.

Since it is a matter affecting such a number of members each year, The BULLETIN was interested in receiving views and criticisms of this event from representative registrants, and so that any possible local prejudice may be kept out of this column, we are glad to present here those views and criticisms in preference to our own. We have, furthermore, been able to pass them along to the Refresher Course authorities and are happy to record their reactions at the same time.

It seems to be accepted that this year's effort was up to average and therefore quite satisfactory. Now while that judgment "up to average" is accepted by Refresher Course authorities, we believe that its corollary "therefore satisfactory" is not, the retort made to us being that to be satisfactory there must be improvement. This surely is a most healthy statement and worthy of its sponsors.

The clinics were well attended and generally favourably commented upon. Particularly popular were those conducted by Professor Austin whose fund of knowledge and humour, inimitable style and fluency of diction established him as a most successful teacher.

The afternoon meetings carried on the symposium idea of other years, led off in each case by one of the guest speakers. These were held on four of the afternoons and gave opportunity for both Dr. Austin and Dr. Simpson to display their very excellent wares in more formal fashion. The contributions from our local men were also of quite high order.

The innovation on Wednesday afternoon of "Recent Advances" put on entirely by local men came in for a good bit of criticism, favourable and otherwise. It was freely stated that the idea was well conceived, but that twelve ten minute periods are far too many for one afternoon. It was crowding

things too much, and even with the chairman's determination to run on schedule there was no time for any discussion. For most of the contributions ten minutes was too little time and for others, that they were too technical for men in general practice was also heard. This seems to have been a pure experiment, and we are informed that its weaknesses were already apparent to the committee and will be guarded against in future. We are not however, quite able to subscribe to the idea that no advances in medicine should be mentioned unless it particularly bears upon our ordinary daily work, for no practice, general or special, should exist in such narrow confines.

The effort to have contributors talk their stuff rather than read it, though an advance in itself, was not entirely successful, the differences in temperament and experience coupled with the inexorable time-limit, hanging over one's head like the sword of Damocles and never very far from it, produced some interesting results. However, recognizing the value of these contributions, a suggestion has been made that a copy of each address or clinic be handed to men registered for the Course or be mailed to them afterwards so that at their leisure they may ruminate upon the various matters presented and thus facilitate their more complete digestion. This suggestion, as one might expect, came from Pictou. It was made in a small group and was subscribed to with avidity by the other visitors in the group. To our objection that the cost would be great when there were no funds for the purpose the further suggestion was made that registration be raised to five dollars as a way out. We thought that this was against the policy of the management to raise the registration, even to that, but recognizing the value of the original suggestion we duly delayed it to the constituted authorities where it was well received. We understand that a meeting has already been held to consider suggestions for the course for next year and that this one was given prominence and means considered for its adoption. We understand that some other major changes are contemplated looking to a great improvement in the course.

As the mouthpiece of the Medical Society of Nova Scotia The BULLETIN pays grateful tribute to the Dalhousie Faculty of Medicine for the important contribution to Medical Education which this course represents. We are glad to feel that the plane of Medicine in this province is a high one, but we believe that its maintenance upon that plane depends to no small degree upon the continuation and improvement of such courses as this and upon our taking full advantage of them.

It would be trite to speak of the dynamic nature of Medical Education but we might re-employ the statement of Dr. Schwartz, modified to our purpose above, "To be satisfactory there must be improvement"; and that's a life-long job.

N. H. G.

Report of the Annual Meeting of the Canadian Medical Association*

By DR. GRANT FLEMING.

MAY I, first of all, express to you my appreciation of having this opportunity to attend your Annual Meeting and for your kindness in asking me to speak? It had been the intention of the General Secretary, Doctor T. C. Routley, to be present, but unfortunately an urgent need for surgical care has placed him in hospital instead of among the sea-breezes of Yarmouth.

The annual meeting of the Canadian Medical Association, held at Calgary during the month of June, was a success. The attendance was large, the scientific programme excellent, the hospitality bountiful, to all of which was added fine weather, leaving nothing to be desired.

The first two days of the meeting were given over to the Council, which is made up of the duly-appointed delegates from the Provincial Medical Associations, the constituent bodies of the Canadian Medical Association. Because of the composition of Council, it is obvious that it is the Provincial Associations which, through their representatives, control the policy of the Canadian Medical Association, and it is the Provincial Associations which are responsible for the success or failure of the national body.

There are those who believe that the Canadian Medical Association has, like a developing child, outgrown its garments—the constitution and by-laws. For this reason, during the coming year, the constitution and by-laws will be reviewed with the idea of bringing them to cover adequately the more mature body which has developed. The Provincial Associations are asked to make any suggestions they desire to bring about such alterations in the constitution and by-laws as may be deemed desirable.

A pleasant interlude in the reading of reports came in the form of an invitation from the American Medical Association to join it in a combined meeting of the American Medical Association and the Canadian Medical Association to be held at Atlantic City in June, 1935. The invitation was received and accepted with enthusiasm, so, for the first time in its history, the Canadian Medical Association will meet next year outside the borders of Canada.

To Council, the Executive Committee reported the action taken during the past year with regard to medical relief. While the Prime Minister of Canada refused to approve of the inclusion of medical relief with food, clothing and shelter, as necessities of life, thereby not acceding to the request of the Canadian Medical Association, nevertheless the situation was clarified by the action taken.

The income tax situation remains the same. It is a matter of practical importance to note that the deductions now allowed, through the activities of the Canadian Medical Association, mean a saving of a minimum of \$15.00 to every physician in Canada who pays a Dominion Income Tax.

*Delivered at the annual meeting of The Medical Society of Nova Scotia, Yarmouth, N. S., July 4th, 1934.

The regular departments reported their work for the past year. The Hospital Service Committee is undertaking, through a special committee, a study of group hospital insurance. The Department of Health Education will, next year, offer a series of health booklets for sale to the public. The high esteem in which the Journal is held was evidenced by the applause which greeted mention of the Journal, or of its Editor, Doctor Nicholls.

Council passed a resolution protesting the action of the Dominion Government in relinquishing direct responsibility for work in the fields of maternal and child hygiene by the discontinuance of the Division of Child Welfare of the Department of National Health, and reiterated its belief that the Dominion Government should give leadership to public health in Canada.

The last session of Council was devoted to a consideration of the report of the Committee on Economics on Health Insurance. This somewhat voluminous report is presented in three parts. The first is a general review of the subject, and describes health insurance in other countries, also giving a digest of reports on health insurance and allied subjects. Part two deals with conditions of medical practice in Canada and developments in Canada. Part three is a Plan for State Health Insurance in Canada.

The purpose of the report of the Committee on Economics is to ascertain if the medical profession of Canada is in general agreement upon certain principles to be included in any health insurance legislation, if and when such legislation is introduced. The underlying principles are that physicians should be paid for their services, and that it should be made reasonably easy for people to pay. The plan is set out in seventeen "Principles". The report was received by Council, and it was decided to refer it to the Provincial Associations for their comment, criticisms and suggestions. When these have been received, the Executive Committee will determine future action, reporting to Council next year. In other words, it is the Provincial Associations which will determine what they wish the Canadian Medical Association to do in the matter.

It is anticipated that a very large delegation will go from Nova Scotia to the joint meeting with the American Medical Association in Atlantic City next year.

CANCER

THE PREVENTION OF CANCER OF THE CERVIX

By H. B. ATLEE, M.D.C.M., F.R.C.S. (Ed. & Can.)

TO the worker in a gynecological clinic the particular tragedy of cancer of the cervix uteri is that it comes to us too late for really effective treatment. In eleven years at the Victoria General Hospital I can count on two hands the number of early cases that presented themselves, and by early cases I mean those in which the disease was confined to the cervix and presented no evidence of infiltration into the parametric tissues. Most of my cases, the vast majority of them in fact, have presented evidence of extension down one or both vaginal walls, infiltration into the parametric tissues, and extension into the more distant gland areas. Is it any wonder that our results with treatment, that the results with treatment all over the world, are so pitiful?

We must become—to use the modern phraseology—more cervix-conscious if we are going to deal more effectively with this common killer of our mothers and sisters. We must go back beyond the beginning of cancer to the garden in which it grows and do more work with those particularly fertile soils in which the disease grows. We can, with a certain amount of assurance, make two fairly dogmatic statements. First; that, wherever we have a woman with a family history of cancer who has had children, that woman's cervix should be suspected, no matter whether she has symptoms or not, but particularly if she has a discharge. Second: we should, in the case of every woman who has had children and now has a discharge, take steps to clear up that discharge whether it is associated with an erosion of the cervix or not. Third: every woman should be examined sometime between three to six months after the birth of every baby to make certain that her cervix is normal, and that she has neither cervicitis alone, nor cervicitis plus erosion, nor a laceration plus erosion.

Supposing she has a cervicitis, with erosion. There is here, in the case of some erosions, the definite duty to make certain whether it is a simple erosion or an early carcinoma. There are several ways in which the diagnosis can be made. First: one may take a small sharp curette and scrape suspicious area. If any friable tissue can be gouged away the condition is certainly carcinoma. Second: one may remove with a knife a section of the cervix and send it for microscopic examination.

What is one to do in the case of a simple erosion or of simple cervicitis. Here again there are three procedures which may be undertaken. First: the cervical canal may be painted with a probe or round wooden applicator, rolled for an inch at the end with wool and dipped into any such solution as Mercurochrome 5%, Tr. Metaphen, saturated solution of picric acid, Tr. Iodine, etc. I have found that all of these, excepting the Mercurochrome, when applied regularly, cause a decided irritation of the vaginal mucosa and

in some cases actually make the erosion larger. In addition to these applications tampons soaked in glycerine and left in over night aid in a cure. Second: the cervical canal and the erosion may be treated with linear cauterizations of an electric cautery. As this procedure can be carried out at one's office and causes the patient in most cases very little discomfort, and as it is a very simple and efficient method of clearing up the condition, I believe that the time will come when every practitioner will have such a cautery in his armamentarium. It is surprising how often one finds a use for it, if one examines every woman after every baby! Third: the erosion and the mucosa lining the cervical canal can be removed by the Sturmdorf operation, which is a coring out of the cervical canal. I would do this operation in preference to using the other methods of treatment in those cases of cervicitis and erosion where there is a family history of carcinoma, and particularly if such a history is present on both sides of the house.

I do not mention here diathermy and ionization, efficient as these methods are, because they require the possession of machinery much more expensive than the average practitioner can economically maintain.

So much for the prevention of carcinoma of the cervix. But there is one other point I wish to stress, and it has to do with the early recognition of the disease. I lay it down dogmatically—and without any apology for the dogmatism—that any woman, of any age who, having at any time been pregnant (whether the pregnancy terminated at full time or in a miscarriage) who bleeds irregularly between her periods, or bleeds after coitus, after hard work, or while at stool, should be handled as a case of carcinoma of the cervix *until she has been proved not to have that dread disease*. There is no exception under heaven to that statement. If you cannot satisfy yourself that such a woman has not got cancer of the cervix send her in to the cancer clinic. If the patient wishes to procrastinate inform her nearest relatives of the danger—as a last resort put it up to herself. *Delay is dangerous*. I have seen women who gave a history of only three months bleeding who had cancers of the cervix so far advanced as to make treatment the merest gamble.

One other thing: *Early cancer is curable*. Many practitioners believe that the radium treatment of cancer of the cervix is usually unsuccessful in so far as permanent cure is concerned. This is not so. The reason the idea has risen is because most cancers of the cervix come to treatment when the disease is too far advanced for any art of man to cure. If we could get the radium to the cancer when the disease was still confined to the cervix alone we could cure a large percentage of cases. We can only do that if we suspect every irregularly bleeding woman of cancer until we prove it otherwise.

And a last thing: Cancer of the cervix is not a disease of older women primarily. For some reason here in Nova Scotia we get an appallingly large number of cases in the early thirties. I think our statistics would show that taking five-year periods, the age-group 30-35 years is as likely to cancer as any other. I have seen a case in a girl of 19 years, who had had a miscarriage three years previously and no other pregnancy. Both her father's and her mother's family were carcinomatous. She was treated for several weeks as a chancre of the cervix.

Cancer of the cervix is preventable! Cancer of the cervix is curable!

**PHYSICIANS REGISTERED AT DALHOUSIE
REFRESHER COURSE**

September 3rd to 7th, 1934.

- Dr. Arthur Green, Glace Bay.
Dr. F. T. Densmore, Dominion.
Dr. C. M. Bethune, Halifax.
Dr. N. H. Gosse, Halifax.
Dr. H. W. Schwartz, Halifax.
Dr. L. P. Churchill, Shelburne.
Dr. E. B. Hall, Bridgetown.
Dr. Eric W. Macdonald, Reserve Mines.
Dr. M. G. Tompkins, Dominion.
Dr. V. O. Mader, Halifax.
Dr. H. B. Atlee, Halifax.
Dr. H. R. Corbett, Kentville.
Dr. M. J. Macaulay, Sydney.
Dr. A. K. Roy, North Sydney.
Dr. G. A. Winfield, Halifax.
Dr. M. R. Young, Pictou.
Dr. A. L. Winsor, Norton, N. B.
Dr. V. A. Snow, Hampton, N. B.
Dr. W. G. Colwell, Halifax.
Dr. L. J. Austin, Kingston, Ont.
Dr. C. E. Kinley, Halifax.
Dr. Gerald R. Burns, Halifax.
D. H. G. Grant, Halifax.
Dr. Dan Murray, Tatamagouche.
Dr. M. A. B. Smith, Dartmouth.
Dr. F. L. Hill, Parrsboro.
Dr. W. L. Muir, Halifax.
Dr. W. E. Fultz, Glace Bay.
Dr. H. S. Wright, Fredericton, N. B.
Dr. Allan R. Morton, Halifax.
Dr. A. McD. Morton, Halifax.
Dr. C. O. Homans, Hubbards.
Dr. W. A. Hewat, Lunenburg.
Dr. R. H. Stoddard, Halifax.
Dr. J. A. Noble, Halifax.
Dr. C. W. Holland, Halifax.
Dr. F. V. Woodbury, Halifax.
Dr. W. Alan Curry, Halifax.
Dr. Frank G. Mack, Halifax.
Dr. J. J. Carroll, Antigonish.
Dr. R. B. Eaton, River Hebert.
Dr. G. E. Rice, Halifax.
Dr. H. C. S. Elliot, Halifax.
Dr. S. A. Adlington, Bedford.
Dr. P. S. Campbell, Halifax.
Dr. Russell C. Zinck, Lunenburg.
Dr. G. H. Murphy, Halifax.
Dr. M. J. Carney, Halifax.
Dr. H. K. MacDonald, Halifax.
Dr. R. C. G. Hawkins, Halifax.
Dr. E. T. Granville, Bedford.
Dr. A. E. Murray, Halifax.
Dr. J. A. Reid, Halifax.
Dr. K. A. MacKenzie, Halifax.
Dr. H. H. Banks, Barrington Passage.
Dr. C. B. Smith, Goldboro.
Dr. J. J. MacDonald, New Glasgow.
Dr. D. F. McInnis, Shubenacadie.
Dr. A. L. Murphy, Halifax.
Dr. R. M. Benvie, Stellarton.
Dr. D. S. McCurdy, Truro.
Dr. A. M. Marshall, Halifax.
Dr. J. R. Corston, Halifax.
Dr. Anna Creighton Laing, Rockville Centre,
New York.
Dr. Ralph P. Smith, Halifax.
Dr. John J. Roy, Sydney.
Dr. M. G. Patterson, Dartmouth.
Dr. F. J. MacLeod, Inverness.
Dr. J. M. Murdoch, Halifax.
Dr. Gordon Wiswell, Halifax.
Dr. J. W. Sutherland, Amherst.
Dr. D. Drury, Maccan.
Dr. A. F. McGregor, New Glasgow.
Dr. K. P. Hayes, Halifax.
Dr. L. R. Morse, Lawrencetown.
Dr. J. A. Sponagle, Middleton.
Dr. R. H. Suherland, Pictou.
Dr. Roy W. Simpson, Toronto, Ont.
Dr. A. A. Schaffner, Halifax.
Dr. A. I. Mader, Halifax.
Dr. S. R. Johnston, Halifax.
Dr. C. H. Morris, Windsor.
Dr. J. N. McDonald, Halifax.
Dr. C. L. MacMillan, Baddeck.
Dr. E. E. Bissett, Windsor.
Dr. Chas. J. W. Beckwith, Kentville.
Dr. B. W. Skinner, Mahone Bay.
Dr. M. R. Elliott, Wolfville.
Dr. O. B. Keddy, Windsor.
Dr. H. B. Havey, Stewiacke.
Dr. J. C. Murray, Tatamagouche.
Dr. J. C. Wickwire, Liverpool.
Dr. R. A. MacLellan, Rawdon Gold Mines.
Dr. Ian Macdonald, Halifax.

Minutes of the Annual Business Meeting

(Continuation of Wed. Morning's Meeting).

Cogswell Library.

The following report of the Cogswell Library Committee was read by Dr. Corston.

To the President,

Medical Society of Nova Scotia.

The Committee on the Cogswell Library begs to report that the usual contribution of this Society to the revenue of the Medical Library at Dalhousie University, namely, the proceeds of the Cogswell bequest, have been applied in the usual manner.

It may be noted that the Medical Library during the past few years has had a considerable number of clinical journals in the different specialities such as—

Journal of Bone and Joint Surgery,
American Journal of Cancer,
British Journal of Ophthalmology,
Practitioner,
American Journal of Roentgenology,
Journal of Paediatrics,
American Journal of Clinical Pathology.

These, as are all other journals in the Library, are available to practitioners throughout the Province. It is noted that during the past two years particularly there has been a marked increase in the number of practitioners throughout the province who are using the reference library offered by this Library. This increase in the case of Halifax City practitioners has amounted to about 50%. The further use of this Library by the members of this Society in accordance with the regulations is invited. The Library would be glad to receive at any time back files of medical journals in any of the following subjects—Urology, Paediatrics, Otology, Otolaryngology, Ophthalmology.

Respectfully submitted,

(Sgd.) J. R. Corston, Chairman,
Cogswell Library Committee.

Dr. Corston moved the adoption of this report which was seconded by Dr. Atlee. Carried.

Dr. Farish advised that he had a lot of medical books which he would be very glad to donate to the Library. Dr. Corston replied that the Library would be very glad to have them, and suggested Dr. Farish send the Library a list so that the librarian could select those not now possessed by the Library.

The business of the meeting was temporarily suspended to receive an address of welcome presented by His Worship, Mayor Walker.

Victorian Order of Nurses.

In the absence of Dr. C. S. Morton, of Halifax, the report of the Victorian Order of Nurses was read by Dr. Grant.

To the President and Executive
of the Medical Society of Nova Scotia.

Gentlemen:

Re Victorian Order of Nurses.

Although no new centres have been opened up during the past year, the Order has been carrying on its usual activities—caring for the sick in the home, demonstrating nursing methods and aiding in the prevention of disease and maintenance of health.

There are 14 centres and 35 nurses in Nova Scotia—and they have in some 50 thousand visits attended 10 thousand cases—of which over 2,000 were obstetrical; the balance covered every type of bedside nursing with major and minor surgery.

Educational work, included prenatal care, infant welfare and T. B. instruction also preschool dental.

Classes work included Home nursing, Girl's Health, League group talks to mothers, etc.

The public as well as the medical profession of the province are greatly indebted to the Order. I wonder if we ever stop to consider how much!

Respectfully submitted,

(Sgd.) C. S. Morton.

Dr. Grant moved that this report be received, which was seconded and carried.

Council C. M. A.

The report of the Council C. M. A. was read by Dr. Williamson.

Dr. H. G. Grant,

Secretary Medical Society of Nova Scotia.

I wish to report that no business has come before the Council C. M. A. during the past year.

(Sgd.) S. W. Williamson.

Nova Scotia Society for Cripple Children.

In the absence of Dr. Morse, of Lawrencetown, the following report was read by Dr. Grant.

Dr. H. G. Grant,

Secretary Medical Society of Nova Scotia.

Your Committee of Board of Management of Nova Scotia Society for Cripple Children beg to report that the N. S. Branch of the Canadian Red Cross Society has been carrying on work for crippled children by holding clinics at various centres through the province.

Excellent work is being done by this Society and it deserves the support of the medical profession of this province.

Every medical practitioner is urged to get in touch with these clinics if any child under his care requires further advice.

Attached is the Red Cross Society report of work from June 15th, 1933, to June 15th, 1934, inclusive.

(Sgd.) L. R. Morse, Chairman.

Work for Crippled Children in Nova Scotia.

June 15th, 1933—June 15th, 1934, inclusive.

1. *Junior Red Cross.*

Clinics held.....	16
Patients examined.....	384
New patients.....	119
Advised re home treatment, exercises, etc.....	255
Treated at local hospitals during clinics in Halifax.....	9
Discharged cured, etc.....	38
Clinics to date under Junior Red Cross.....	100
Patients to date.....	935
Treated to date (in hospital).....	208

Crippled Children's Clinics are organized on request from the district either through a Senior Red Cross Society or some active Service Club. Junior Red Cross Branches must be organized in the schools as many of the Clinic patients requiring hospitalization, braces, etc., are dependent on help from the Crippled Children's Fund—a Fund made up of money earned and saved by the Junior members of the Red Cross.

All child patients thus helped must be reported through a Junior Red Cross Branch in the district. Through this method boys and girls who are the prospective Senior Red Cross workers, Rotarians, Kiwanians, Church workers, etc., actively participate in acts of service to others.

Clinics are held Spring and Fall at the hospital in Sydney, Sydney Mines, Glace Bay (both hospitals), New Waterford, Digby and Windsor. They are also held at Kentville, and once a year at Liverpool, New Glasgow and Antigonish. Stops are sometimes made at other points when requested by a doctor.

Halifax Clinics. Since November, 1924, held weekly at Dalhousie Health Centre; previously held by Junior Red Cross.

Yarmouth Clinics. Opened in 1925 by Junior Red Cross. Subsequent clinics held Spring and Fall under the local Rotary Club, with Junior Red Cross assisting. To date 16 have been held.

Junior Red Cross Clinics are open to underprivileged children under sixteen years of age.

Gradually parents are bringing in their babies as deformities are noticed, or before they occur, which is an infinitely better situation than found when the clinics were first inaugurated.

The Supervisor of Attendance Department of Education now issues Disability Forms to all teachers in the Province. He sends Junior Red Cross the names of all crippled children thus reported to him, when they are checked up with our clinic lists, and, if new, are notified to report at the next one in the locality.

The Canadian Red Cross Society, Nova Scotia Division, is deeply appreciative of the co-operation from the medical profession in every centre.

The adoption of this report was moved by Dr. O'Neil and seconded by Dr. D. W. Archibald. Carried.

Advisory Committee to Public Health.

The following report was read by Dr. Farish.

Dr. H. G. Grant,
Secretary Medical Society of Nova Scotia.

As Chairman of the Advisory Committee to Public Health may say that there has been no meeting of this Committee with the Public Health since our last annual meeting of the Medical Society of Nova Scotia.

(Sgd.) G. W. T. Farish, Chairman.

Public Health and Health Publicity Committees.

In the absence of Dr. P. S. Campbell, of Halifax, the following report was read by Dr. Grant.

Dr. H. G. Grant,

Secretary, Medical Society of Nova Scotia.

Dear Dr. Grant:

I have your letters of May 30th asking for a report of Public Health and Health Publicity Committees of the Nova Scotia Medical Society.

Before this date I was not aware of my appointment as Chairman of the above named committees, consequently so far as I know, no meetings were held during the year. It would likely be difficult at this late date to get the various members of both committees together, since the men are scattered throughout the province. I do not know of any thing at present that would warrant attempting this.

I would suggest that in future the work of both these committees could be done by one, or perhaps the work of both could be passed over to the Advisory Committee in public health. This, of course is a matter for the consideration of the executive of the Society at its regular meeting.

Yours very truly,

(Sgd.) P. S. Campbell, M. D.
Chief Health Officer.

Dr. Grant advised that at the Executive meeting held last night it had been moved by Dr. Atlee and seconded by Dr. O'Neil that these three committees, namely, Advisory Committee to Public Health, Public Health, and Health Publicity be merged into one committee, and that the chairman of this committee always be a medical practitioner who is a public health official.

It was moved by Dr. Atlee and seconded by Dr. A. McD. Morton that the Executive resolution re Public Health Committees be passed. Carried.

Historical Medicine.

In the absence of Dr. Scammell, of Halifax, Dr. Grant read the following report. Dr. H. G. Grant,

Secretary Nova Scotia Medical Society.

Dear Dr. Grant—

To the President, Officers and members of the Medical Society of Nova Scotia, I beg to present the report of the Committee on Historical Medicine.

During the past year your committee did not hold a meeting. In co-operation with the Secretary circular letters were sent to a large number of practitioners in the province asking for data on local medical superstitions and household remedies in their communities. It was felt that this would awaken interest and the data collected would prove of great historic interest. With but one exception no answers were received. The collection of historic medical books, instruments and sundries has been augmented by the addition

of several items of interest. The co-operation of the members in securing material for this collection before it is either lost or destroyed is earnestly requested.

It is quite obvious that much more should be done by this committee yet the work at present must be undertaken by the members individually, as they are too widely scattered to meet as frequently as the study of some specific historical subject would demand. I therefore beg that the Nova Scotia Medical Society in this regard consider the following scheme.

Let the Committee on Historical Medicine of the Society be selected each year in turn from one of the Branch Societies. The object of its work to be the general study of historical medicine as it applies to the province at large, but more particularly for the collection of data from its own district.

This scheme has the following advantages.

1. It permits of a systematic search of the province for items of interest.
2. It allows the committee to meet frequently.
3. It will stimulate a certain healthy interest and rivalry. No Branch Society will wish to be outdone by another.

In addition might I suggest that a small prize be offered annually by the Society for the best paper presenting original historical material, presented by a member, to become the property of the Society. The details of this may be worked out as deemed advisable.

Respectfully submitted,

(Sgd.) H. L. Scammell.

It was moved by Dr. Gosse and seconded by Dr. D. W. Archibald that this report be received. Carried.

Dr. Grant advised that at last night's executive meeting it had been moved by Dr. Atlee and seconded by Dr. Dunbar that this report be adopted but that the Executive did not recommend a prize be given at the present time.

It was moved by Dr. Gosse and seconded by Dr. Archibald that the resolution of the Executive Committee be accepted. Carried.

Provincial Medical Board of Nova Scotia.

In the absence of Dr. MacDougall, of Halifax, the report was read by Dr. Grant.

To the President and Members
of the Nova Scotia Medical Society.

As Chairman of your Committee on the Provincial Medical Board of Nova Scotia, I beg to report regarding the activities of that body as follows:

Since the last meeting of this Society two meetings of the Provincial Medical Board have been held. The first of these was the Annual Meeting on November 1st, 1933. At this meeting besides routine business the following items of general interest were dealt with:

(a) *Medical Ethics.* It was reported to the Board that students were being graduated and licensed to practise without receiving any rudimentary instruction in Medical Ethics. The Board felt its obligation in this regard and directed the Registrar, Dr. H. L. Scammell, to arrange for a series of three lectures in this subject to be given to senior students in co-operation with Dalhousie University. I may say that these lectures were given by

Dr. G. H. Murphy, Dr. H. L. Scammell and myself, considering the matter under the following heads. 1. The Doctor in his relation to the profession. 2. The Doctor in his relation to his patient. 3. The Doctor in his relation to the public. It is the intention of the Board that these lectures be delivered yearly.

(b) *The Hattie Foundation.* On behalf of his Committee, Dr. H. K. MacDonald reported the steps taken to establish a fitting memorial to Dr. W. H. Hattie, who died in the late Autumn of 1931. He asked the Board to consider the matter carefully with the view to contributing to this Foundation from its funds. The Board was highly sympathetic with the proposed move but felt that before contributing to it, an opinion should be secured from its solicitor as to the legal right of the Board to do so, this to be presented at the next meeting.

(c) *Financial Aid to Medical Students.* Many times during his course a student in Medicine is in urgent need of obtaining financial assistance. The Board was asked to consider the establishment of a loan fund for this purpose. Sentimentally the Board was much inclined to the proposal but again instructed the Registrar to obtain the opinion of the solicitor.

(d) *At the next meeting of the Board held on May 8th, 1934,* the matter of these contributions was again brought up. The Solicitor had fully reviewed the subject and gave it as his considered opinion that the Provincial Medical Board had no legal right to give money from its funds to either the Hattie Foundation or to a Loan Fund for medical students. The Board accordingly felt that under the circumstances it must, with regret, proceed no farther with these matters.

Application for Registration was considered from two medical gentlemen living in retirement in Nova Scotia. Both had graduated from Medical Schools in which the course of study covered four years. As the Medical Act required Registrants to have had a medical course of at least five years, the Board felt itself unable to grant these requests unless the applicants were prepared to continue their studies and submit to an examination.

The Reported Activities of a Chiropractor in the Town of Dartmouth were considered. The Registrar was instructed to secure all the evidence possible and place it in the hands of the solicitor, and obtain his opinion as to whether it would be advisable to proceed with an action against him.

The remainder of the time was spent in routine business including the consideration of the results of the Fifth and Fourth year examinations held conjointly with Dalhousie University and that day completed. The following is the membership of the Board at present and its committees:

Members appointed by the Government of Nova Scotia.

1. J. J. Cameron, M.D., Antigonish.
2. J. B. Reid, M.D., Truro.
3. Daniel MacDonald, M.D., North Sydney.
4. J. G. MacAskill, M.D., Glace Bay
5. M. G. Burris, M.D., Dartmouth.
6. C. S. Morton, M.D., Halifax.
7. J. A. Sponagle, M.D., Middleton.

Members appointed by the Nova Scotia Medical Society.

1. H. K. MacDonald, M.D., Halifax.
2. J. G. MacDougall, M.D., Halifax.
3. M. G. Tompkins, M.D., Dominion.
4. M. G. MacLeod, M.D., Whycomogagh.
5. A. B. Campbell, M.D., Bear River.
6. A. E. Mackintosh, M.D., Amherst.

Officers.

President, J. G. MacDougall, M.D., Halifax.
 Registrar and Secretary-Treasurer, H. L. Scammell, M.D., Halifax.

Executive Committee.

J. J. Cameron, C. S. Morton, M. G. Burris.

Discipline Committee.

M. G. Tompkins, J. A. Sponagle.

Solicitor.

L. A. Lovett, K.C.

Respectfully submitted,

(Sgd.) J. G. MacDougall,
 per H. L. Scammell.

It was moved by Dr. Corston and seconded by Dr. Gosse that the report be received. Carried.

Narcotic Drugs.

The following report was read by Dr. D. W. Archibald.
 Dr. H. G. Grant,
 Secretary, Nova Scotia Medical Society.

Dear Sir:

As Chairman of the Committee on Narcotic Drugs, I beg to submit the following report:

As yet, no statistics are available for the past year, but the following notes obtained through the Department of Health are interesting.

It is the opinion of the Federal Department that while it may not be found practical to completely stamp out the traffic in Canada, a considerable improvement is apparent as compared with some few years ago. During the year ending September 30th, 1932, which is the last year that figures are available, there were 340 convictions in all of Canada: 138 for possession of drugs, 45 for selling or distributing, 4 for importing without a license, 2 for transporting drugs without a license, 71 for smoking opium, 51 for frequenting opium dens, 25 for possession of pipes, 3 for obtaining drugs from more than one physician, and one professional case.

During this time there was only one conviction in the Province of Nova Scotia, namely, that of a Chinaman, for smoking opium. In the Dominion of Canada, during the calendar year 1932, 66 aliens were deported after imprisonment for narcotic offences; of the same, 53 were Chinese. Of the drugs seized during the calendar year 1932, there was a decrease in opium, heroin, and cocaine, and an increase in morphine. Seizures of cannabis sativa in the form of cigarettes, commonly known as marihuana, were made for the

first time. The use of these cigarettes, which are related to the Oriental addiction known as hashish, has increased of late years in the United States, so that special efforts are being made to control the same in Canada.

All the Narcotic seizures under the opium and Narcotic Drug Act were destroyed. Fourteen and one-half pounds of gum opium seized under the Customs Act, were sold by the Department of National Revenue to licensed Narcotic Wholesalers.

It has been suggested by a member of the Committee that the Medical Society of Nova Scotia request the Department of Health of the Province of Nova Scotia to notify all practising physicians in the province of the regulations concerning the admission of patients suffering from drug addiction to the Nova Scotia Hospital, Dartmouth. This hospital is now named by the Local Government as the one for care and treatment of this condition. Few of the men in practice know how to go about sending such a patient to the Hospital.

Very respectfully submitted,

(Sgd.) D. W. Archibald.

It was moved by Dr. D. W. Archibald and seconded by Dr. Dunbar that the report be adopted. Carried.

Dr. J. J. Roy asked how patients could be committed to the institution, or if they were not willing to be committed and still willing to receive treatment, what could be done about it.

Legislative Committee.

In the absence of Dr. Kinley of Halifax the following report was read by Dr. H. G. Grant, Secretary,
Nova Scotia Medical Society.

Dear Sir:—

The following is the report of the Legislature Committee of the Society: Your Committee brought to the attention of the Minister the resolution submitted to the Nova Scotia Medical Society by the Valley Medical Society, re appointments to the Provincial Medical Board.

Owing to a fundamental objection to the principle involved, it was considered advisable not to bring the matter before the legislature in the form of a Bill—in this your Committee concurs.

It was, however, agreed that the membership of the Board was unnecessarily large and has been reduced by two, bringing the total membership back to its original number.

Respectfully submitted,

(Sgd.) C. E. Kinley, M.D.,
J. G. MacDougall, M.D.

After some discussion it was moved by Dr. Gosse and seconded by Dr. Mack that the incoming Executive be instructed to gather information as to what is being done in other Provinces and also the connection between the British Medical Committee and the British Government and present it at the next meeting. Carried.

Joint Study Committee on Nursing Education.

In the absence of Dr. K. A. MacKenzie, of Halifax, the report was read by Dr. Grant.

In 1929 Dr. G. M. Weir, Professor of Education and Head of the Department of Education, University of British Columbia, was invited to direct

a survey of nursing education in Canada. He was supported by a strong central committee of six as follows—

Representing the Nursing Profession—

Miss Jean Gunn, Superintendent of Nurses, Toronto General Hospital;
Miss Kathleen Russell, Director, Department of Nursing, Toronto University;

Miss Jean Browne, Secretary, Junior Red Cross;

Representing the Canadian Medical Association—

Dr. A. T. Bazin; Dr. Duncan Graham; Dr. G. Stewart Cameron.

Questionnaires were sent out and completed returns received from 2,369 doctors and 4,576 nurses. The Director visited all parts of Canada travelling 35,000 miles, inspected 145 training schools and held 600 conferences at many of which there was lay representation. Information thus gathered was subjected to a careful study and analysis and the results obtained were embodied in a report of 600 pages which appeared in 1932. All phases of the nursing problem were discussed, valuable statistics tabulated and many recommendations offered. New committees were formed to study ways and means of applying the information to the practical problems of nursing in Canada. In addition to central committees, sub-committees were appointed in each province. In Nova Scotia this sub-committee consists of six members as follows: Miss Anne Slattery, Miss Lenta Hall, and Miss Winslow by the Nurses Association, and Drs. H. B. Atlee, O. B. Keddy and K. A. MacKenzie by the Medical Society of Nova Scotia.

This committee has met three times and discussed various features of the report with special reference to local conditions. For details of the report the original volume must be read. There are, however, some features which may be presented at this time. The number of nurses in Canada in 1901 was 280; in 1930, 18,174. In addition, there are at this date 9,594 student nurses. During this period the number of doctors increased from 3,053 in 1901 to 9,292 in 1930. Proportion of doctors to population 1-1000. Of nurses—1-550. It will be seen that there is an overproduction of nurses at the present time and this is a serious feature in regard to subsequent employment. The average earning of nurses is \$735.00 a year.

The report is mainly concerned with educational matters. It is found that there is a great lack of uniformity in training schools and some suggestions are made to remedy these conditions.

1. A minimum matriculation entrance equal to grade XI high school.

2. A careful study of the Curriculum. There should be more uniformity and all schools should be compelled to come up to a minimum standard. Hospitals unable to meet these requirements should discontinue teaching. In Nova Scotia there are 13 training schools. The committee recommend that training schools be discontinued in special hospitals. The Nova Scotia Sanatorium has already done this, and it is hoped that the Nova Scotia Hospital in Dartmouth will see its way to do likewise. It may then be possible to have affiliation with these institutions so that all nurses may have a period of training in mental hospitals and sanatoria. It is also recommended that the minimum number of beds for a training school be 75, and that there should be at least one full time teacher in each school. Graduates should be in proportion of one to three student nurses.

Registration. It is desirable that some form of Dominion registration should be established. As there are many obstacles in the way of such a scheme and many lessons may be learned from the experience of the medical

profession in securing Dominion registration, it is felt that a great deal of work must be done before progress in this direction can be made. In the meantime, efforts should be made to bring the provincial bodies up to a high standard.

3. The question of nursing employment is worthy of consideration and some scheme of part time service well organized may solve the problem of unemployment and at the same time furnish a more useful service to the public.

A superannuation scheme was discussed and the committee had the services of Mr. Shinner of the Department of Education, Nova Scotia. He outlined the detail of the Nova Scotia's Teacher's Pension Scheme, and it is possible with some difficulty to organize a similar scheme for nurses.

The committee express the hope that the *Bulletin* of this Society will aid in publicity of the Weir report. It is hoped also that the Medical Society of Nova Scotia will give some attention to the nursing problem. Nursing is an essential factor in the work of the medical men, and any efforts to increase the efficiency of nursing will greatly aid medical men in their work, and in turn convey to the sick public the benefits of medical aid in an enhanced degree.

The committee has made a resume of the Weir report for distribution among hospitals, training schools and interested individuals. It was felt that the Report being such a bulky document it was not likely to be read except by the very interested few. The Committee's resume contains those recommendations of the Report which it was felt might be applicable to local institutions.

Submitted on behalf of the Committee.

(Sgd.) K. A. MacKenzie.

The adoption of the report was moved and seconded by Dr. Morton.

Dr. Roy: "What control has the Medical Society over the nursing organization?"

Dr. Webster: "The Medical Society of Nova Scotia has no control over the education of nurses; it should have. I think Nova Scotia conditions should be studied by that Committee. We have hospitals at Digby, Yarmouth, Bridgewater, Middleton and Windsor, the training schools must be smaller."

Dr. Keddy: "I am a member of that Committee. I feel it necessary to take exception to one clause, referring to 75 beds. There will be a certain handicap in graduating nurses from the larger hospitals, but as you will remember not many years ago the minimum number of beds for training schools was 50. Certain hospitals went to quite an expenditure to raise that 50. The principle may be all right to raise from 50 to 75, then up to 100; it does not appeal to me at all and might place a hardship on certain communities. I am not prepared to support any movement which would place any embarrassment on the hospitals, and I think we have the public to consider as well as the graduating nurse. I would like very much to see the Society favour the smaller hospitals. I think with regard to that one item we should go a little bit slowly."

Dr. Atlee: "I am one of the other members of this Committee. Dr. K. A. MacKenzie took abstracts of the Weir report, and we did give it some attention and discussion. It was the question of unemployment among nurses, as such a large number are being turned out to-day."

Dr. Williamson: "I am of the opinion that hospitals should not have training schools that have not got 75 beds. The small hospitals, less than 75 beds, would be very much better off without training schools."

Dr. Webster moved that the report be received, and that the Medical Society of Nova Scotia appoint a committee to investigate nursing conditions in Nova Scotia, and in Nova Scotia Hospitals and bring a report at the next annual meeting. Seconded by Dr. Keddy.

Dr. Atlee advised that the ground had been very thoroughly covered by the Weir committee, and the Society would be going over the same ground, unless definitely given some further instructions.

Dr. Webster replied that the Society wanted the investigation carried on for Nova Scotia, not Canada as a whole.

Dr. Atlee: "If we limit the number of beds in about five or ten years the number of beds will be raised again. I think we must accept the fact that higher requirements will be required."

Dr. Burton: "I am not thinking so much of the work in the hospital itself, as the efficiency of private nursing in the communities in which the graduates are placed. As far as private nursing goes we find it very difficult to place other graduates. We might find that if we did not have these small training schools throughout the province we might find it very difficult to get graduate nurses."

Dr. McLeod: "There seems to be great difference of opinion. The graduates from our hospitals in Cape Breton compare very well with any other graduates. I am going to vote for it. I move to lay the report on the table until next year and continue the investigation."

It was moved by Dr. Williamson and seconded by Dr. LeBlanc that the report of the Committee be adopted, and that Dr. Webster be chairman of the Committee.

Dr. Muir: "Time would be saved if the President would make the nominations to that Committee." Seconded by Dr. Webster.

Dr. Grant read the following letter from the Directors of the Yarmouth Hospital Society.

Dr. T. A. Lebbetter, M.D.,

President, Medical Society of Nova Scotia.

Dear Dr. Lebbetter:—

The Directors of the Yarmouth Hospital Society extend a welcome to the members of the Medical Society of Nova Scotia, their guests and friends, who are coming to Yarmouth to attend the eighty-first annual meeting of the Society, on July 4th and 5th.

If there is anything that we, as a body, or as individuals, can do to help make your convention a success, please call on us.

The Hospital staff is at the service of your members and will gladly furnish any information in regard to the operation of the Hospital.

We would appreciate any suggestions or criticisms from your members in regard to the running of the Hospital, and would gladly welcome information in regard to the outside institutions that your members may be associated with.

Sincerely yours,

(Sgd.) Marcia G. Monk, R.N.

G. W. T. Farish, M.D.

G. Prescott Baker.

Committee, appointed by the Board of Directors.

It was moved and seconded that this communication be received and accepted with thanks. Carried.

Meeting adjourned at one p. m.

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

Chief Health Officer - - - - DR. P. S. CAMPBELL, Halifax.
Divisional Medical Health Officer - - DR. C. M. BAYNE, Sydney.
Divisional Medical Health Officer - - DR. J. J. MACRITCHIE, Halifax.
Director of Public Health Laboratory - - DR. D. J. MACKENZIE, Halifax.
Pathologist - - - - DR. R. P. SMITH, Halifax.
Psychiatrist - - - - DR. ELIZA P. BRISON, Halifax.
Superintendent Nursing Service - - - MISS M. E. MACKENZIE, Reg. N., Halifax.

OFFICERS OF THE PROVINCIAL HEALTH OFFICERS' ASSOCIATION

President - - - - DR. A. E. BLACKETT, - - - - New Glasgow.
1st Vice President - - - - DR. F. O'NEIL, - - - - Sydney.
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COUNCIL

DR. W. R. DUNBAR - - - - Truro.
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 DR. F. R. HILL - - - - Parrsboro.

MEDICAL HEALTH OFFICERS FOR CITIES, TOWNS AND COUNTIES

ANNAPOLIS COUNTY

Hall, E. B., Bridgetown.
 Braine, L. B. W., Annapolis Royal.
 Kelley, H. E., Middleton.
 Messenger, Carl, Granville Ferry (County).

O'Neil, F., Sydney (County).
 Murray, R. L., North Sydney.
 Townsend, H. J., Louisburg.

COLCHESTER COUNTY

ANTIGONISH COUNTY

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

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

CAPE BRETON COUNTY

Tompkins, M. G., Dominion.
 Fraser, R. H., New Waterford.
 MacDonald, N., Sydney Mines.
 Archibald, B. C., Glace Bay.
 McLeod, J. K., Sydney.

CUMBERLAND COUNTY

Bliss, G. C. W., Amherst.
 Drury, D., Maccan (County).
 Gilroy, J. R., Oxford.
 Henderson, C. S., Parrsboro.
 Eaton, R. B., River Hebert (Joggins).
 Walsh, F. E., Springhill.

DIGBY COUNTY

Dickie, W. R., Digby.
Melanson, H. J., Weymouth (County).
Doiron, L. F., Little Brook (Clare Mcpy).

GUYSBORO COUNTY

Chisholm, A. N., Port Hawkesbury (Mulgrave).
Sutherland, H. F., 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).
Payzant, H. A., 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
LeBlanc, L. J., Cheticamp (County).
Proudfoot, J. A., Inverness.
Chisholm, D. M., Port Hood.

KINGS COUNTY

MacKinnon, Hugh, Berwick.
Bishop, B. S., Kentville.
Burns, A. S., Kentville (County).
deWitt, C. E. A., Wolfville.

LUNENBURG COUNTY

Cole, W. H., New Germany (County).
Reh fuss, 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.
McKay, W. A., Thorburn (County).
Whitman, H. B., Westville.
Stramberg, C. W., Trenton.
Dunn, G. A., Pictou.
Whitman, G. W., Stellarton.

QUEENS COUNTY

Ford, T. R., Liverpool (Town and County).

RICHMOND COUNTY

LeBlanc, B. A., 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

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

YARMOUTH COUNTY

Blackadar, R. L., Port Maitland (County).
Burton, G. V., Yarmouth.
O'Brien, W. C., Wedgeport.
Fox, C. J., 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 sent for examination to the Pathological Laboratory, from August 1st, to September 1st, 1934.

The number of tissues sectioned is 248. In addition to this, 29 tissues from six autopsies were sectioned, making 277 tissues in all.

Tumours, malignant.....	32
Tumours, simple.....	26
Tumours, suspicious.....	4
Other conditions.....	185
Awaiting Section.....	1
Tissues from six autopsies.....	29

Communicable Diseases Reported by the Medical Health Officers for the month of August, 1934.

County	Chicken Pox	Diphtheria	Infantile Paralysis	Influenza	Measles	Paratyphoid	Pneumonia	Scarlet Fever	Tbc. Pulmonary	V. D. G.	V. D. S.	Whooping Cough	German Measles	Scabies	Pink Eye	Tbc. other forms	Septic Sore Throat	Enteritis	Erysipelas	Goitre	TOTAL	
	Annapolis...	1	1
Antigonish...	..	..	..	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5
Cape Breton...	..	..	..	8	..	..	..	3	..	..	..	..	2	..	..	..	..	..	..	..	..	13
Colchester...	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Cumberland...	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1
Digby...	..	..	..	3	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	4
Guysboro...	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	2
Halifax City...	2	3	1	..	..	..	..	13	..	..	..	9	..	..	..	..	..	..	..	2	..	30
Halifax...	..	..	..	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	3
Hants...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Inverness...	2	2	..	3	4	..	4	..	7	..	..	..	..	6	..	..	..	..	..	..	1	29
Kings...	..	..	..	1	..	..	..	..	2	..	3	..	..	..	..	..	3	2	..	..	..	11
Lunenburg...	..	..	..	..	..	..	..	6	..	2	..	..	..	..	..	..	..	..	..	..	..	8
Pictou...	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2	..	..	..	..	..	..	4
Queens...	..	..	..	..	..	..	4	2	..	..	..	..	..	..	..	..	..	..	..	..	..	6
Richmond...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Shelburne...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Victoria...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Yarmouth...	..	1	1	2	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	5
TOTAL.....	5	6	2	17	9	1	8	25	1	11	3	15	5	6	2	..	3	2	2	1	124	

RETURNS VITAL STATISTICS FOR JULY, 1934.

County	Births		Marriages	Deaths		Stillbirths
	M	F		M	F	
Annapolis.....	10	13	7	12	6	1
Antigonish.....	12	14	7	11	6	1
Cape Breton.....	10	108	56	31	27	7
Colchester.....	14	26	23	8	14	1
Cumberland.....	29	35	29	25	14	3
Digby.....	13	13	5	9	7	1
Guysboro.....	19	9	14	12	4	3
Halifax.....	76	90	81	49	36	4
Hants.....	12	6	11	8	7	0
Inverness.....	15	12	14	9	3	2
Kings.....	28	26	22	18	16	1
Lunenburg.....	24	20	14	8	6	0
Pictou.....	24	26	23	12	6	1
Queens.....	7	9	6	3	1	1
Richmond.....	8	8	2	3	1	1
Shelburne.....	9	4	6	4	3	0
Victoria.....	2	2	1	3	2	0
Yarmouth.....	19	11	17	4	8	0
TOTAL.....	421	432	338	229	167	27

OBITUARY

MR. CATHERINE PRIMROSE, seventy-one, widow of Dr. Samuel C. Primrose, for many years one of the outstanding and most popular physicians in Western Nova Scotia, passed away at Granville Ferry on August 8th. Mrs. Primrose was a daughter of the late Mr. and Mrs. D. W. Landers, Margaretsville. She is survived by three sisters, Mrs. C. L. Dodge, Kentville; Mrs. A. G. Blair, Watertown, Mass.; Miss Lottie Landers, Boston.

There passed away at Eelbrook on Sunday, August 5th, Mr. Sylvian Pothier, father of Dr. H. J. Pothier of Weymouth. Mr. Pothier was eighty-three years of age, and was well-known through the province. He had conducted business at Eelbrook for over sixty years.

Dr. D. M. MacKay, sixty-five, one of Vancouver's leading physicians, died at his home on August 30th. Dr. MacKay was born in Lorne, Pictou County. He was educated at Pictou Academy, Dalhousie University and Jefferson Medical College, Philadelphia.

EDMUND OLIVER HALLETT, M. D.

At Weymouth, on Monday, September 3rd, there died one of the well-known practitioners of the province. Doctor Hallett was born November 19, 1860, in Sussex, New Brunswick. The family subsequently moved to Truro, N. S., where "Ned" (as he was known to his closest friends) grew up the youngest of seven children. He early evinced a love of nature which he retained and developed throughout his life. His education was obtained at the Collegiate School in Windsor, at King's College (then situated in Windsor) and finally his medical training at McGill University, from which he graduated in 1885. He started his medical career in D'Escouse, Cape Breton. He married Ina Smith, daughter of Mr. and Mrs. John R. Smith of Arichat, granddaughter of the Le Grand family, well-known ship merchants of the day. A few years afterward he moved to Weymouth, where he and the recently deceased Judge Grierson became life long friends for over forty years. Of rugged physique he carried on an ever increasing practice over many miles of country. His love of nature, sociability, and fellowship was soon manifest, for he was a pioneer in this territory in snipe and woodcock shooting, and in fly rod fishing. He was most devoted to his wife through her long illness. As a practitioner he had great sympathy and understanding, untiring conscientious attention and most of all a high development of professional common sense. He was president of the Nova Scotia Medical Society from 1929 to 1930.

His lovable disposition endeared him to his friends and patients. He gave of his time and professional experience without regard to monetary reimbursement. His whole life was that of a great sportsman, a lover of man-

kind, a lover of animal life. So he lived his life to the end. During the past Winter Dr. Hallett visited both New York and Boston in an attempt to regain his health, returning to Weymouth in May. From that time he rapidly declined and after a visit with his daughter, Barberie, and her family at his favorite camp on Lake Wentworth he slowly sank and died on September 3rd. His friend of long standing, Judge Grierson, predeceased him by a few months.

He was indeed a noble son, a sincere lover of man and beast and a true christian gentleman. His passing is a great loss to his family, his many friends, and to the medical profession. He is survived by a sister, Mrs. Frances G. Ogle, of Brockville, Ont.; by three daughters, Mrs. Roderick O. Bethune, of Berwick; Mrs. Torr Wagner Harmer, of Boston; and Mrs. Gordon Bruce, of New York; and a son, Mr. R. Stanley Hallett, of Weymouth and nine grandchildren.

MODERATE COUNSEL.

To the Editor of *The Globe*: The Corbeil quintuplet recalls a story that was current some time ago. Mike met his old friend Pat three years after Pat and Nora had married.

"And how is married loife, Pat?"

"Begory, it's foine," says Pat.

"And have ye any childer?" says Mike.

"Sure," says Pat, with a proud smile; "we have foive."

"Foive?" says the astonished Mike. "But ye've only been married three years!"

"Sure," says Pat, "But the way of it was this: The first year we were married we lived at Twin City, and me woife had twins. Then we moved to Three Rivers, and me woife had triplets, and there ye are, foive, and they're a foine bunch o' kiddies, Oim tellin' ye."

"Well," says Mike, "If ye'll be takin' my advice, ye'll kape away from the Thousand Islands!"

M. W. S.

HARRIET M. GILES *Hats*

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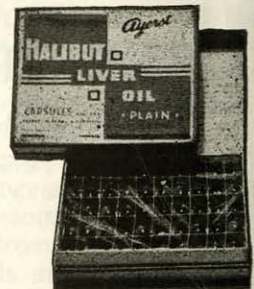
UNQUESTIONABLY, Halibut Liver Oil has definite therapeutic merit—so has, of course, Cod Liver Oil. But Halibut Liver Oil cannot take the place of Cod Liver Oil. Halibut Liver Oil is being widely advertised as a substitute for Cod Liver Oil. It is NOT a true substitute and cannot be properly described as "Cod Liver Oil by the drop." Halibut Liver Oil is rich in vitamin A and provides an excellent medium for VITAMIN A THERAPY, but, being relatively low in vitamin D, it cannot be used economically as an anti-rachitic agent.

Cod Liver Oil is the "gold standard" of vitamin A and D therapy, and long clinical experience has established the fact that the vitamin A and D ratio in Cod Liver Oil is sound and practical. Every physician appreciates the value of Cod Liver Oil "by the teaspoonful," and it is probable that Halibut Liver Oil has had its greatest appeal because of the convenience of its capsule form. Where convenience is a factor in Cod Liver Oil therapy we offer Alphamette Liquid, and the capsule forms, Alphamettes and "Calcium A." These three products are prepared for the convenient application of Cod Liver Oil therapy and faithfully retain the same "gold standard" values of vitamins A and D as exhibited in good medicinal Cod Liver Oil. Each Alphamette exhibits the full vitamin value of three teaspoonfuls of Cod Liver Oil and each "Calcium A" capsule that of one teaspoonful in association with organically combined calcium and phosphorus. The choice as between Halibut Liver Oil and Cod Liver Oil rests primarily with the physician. We endeavour to supply products which meet the demands of the profession, and therefore, offer capsules of Halibut Liver Oil "Plain" and "250D" which conform with the standards of potency set by the Council on Pharmacy and Chemistry of the A. M. A.

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Personal Interest Notes

Vaccination against Infantile Paralysis.—On August 17th it was announced by Dr. John A. Kolmer, Temple University Professor and Medical Research Director at Philadelphia, that after three years of effort he had perfected a successful vaccine against the infection of infantile paralysis.

Miss Anna M. Rule, a native of Halifax, daughter of Mrs. Annie and the late John Rule, and brother of James Rule of Halifax, a co-worker with Dr. Kolmer for the past fifteen years at Philadelphia shares the glory of the discovery. She and Dr. Kolmer after experimenting with monkeys injected the immunizing vaccine into their own bodies. Proof of the power of the vaccine discovered by Dr. Kolmer after years of work was demonstrated on monkeys.

Dr. Kolmer stated that to produce immunization the vaccine has to be injected at least six weeks before infection is acquired. There have been many vaccines and serums used in the prophylaxis and cure of infantile paralysis. The BULLETIN sincerely hopes that Dr. Kolmer is correct in believing that he now has a vaccine which will confer immunity against the disease.

Dr. V. D. Shaffner, son of Mr. and Mrs. R. J. Shaffner of Lawrencetown, has settled in Kentville to conduct a purely surgical practice. Dr. Shaffner is a graduate of Lawrencetown High School, and took his B. A. at Acadia. In 1930 he graduated from McGill in medicine and surgery. Since then he has been attached to the Royal Victoria Hospital, Montreal.

The Halifax newspapers have announced the appointment of Dr. J. L. Churchill as Superintendent of the Nova Scotia Hospital. Dr. Churchill succeeds Dr. F. E. Lawlor, who is retiring owing to ill health. The new official, a graduate of Acadia University, received his medical degree from McGill University and did post-graduate work in New York. He will spend the next four months in survey work before taking over his new position. Dr. Churchill is on the Dalhousie Medical Faculty and is a former chairman of the City Health Board.

Dr. E. L. McQuade of Saint John, graduate in medicine from Dalhousie, has been appointed State Director of Rural Health for Virginia. Leaving Canada Dr. McQuade first took a position under the Rockefeller Foundation in the State of Ohio. Following that he served as County Health Officer in Virginia, and from there went to the Johns Hopkins University where he received the degree of Doctor of Public Health. The last two years he has been acting as Health Officer of the City of Charlottesville and the of County Albermarle, Virginia.

Dr. Catherine Whittier and Dr. Jean Whittier have been spending a few days in Halifax the guests of their brother, R. B. Whittier, 93 Albert Street. After visiting their home in Rawdon, Hants County, they will sail for India in September where they will be engaged in medical missionary work under the United Church of Canada.

Therapeutic Effect is dependent on Solubility . . .

Even if spirochetes were localized at the site of injection the only effective portion of the antisymphilitic agent used would be the portion in solution.

Thio-Bismol is in solution when injected . .

Being soluble in tissue fluids it is not appreciably precipitated in the body, as many bismuth preparations are, but is promptly dispersed by the circulating blood, thus establishing a high concentration of spirocheticidal bismuth salt in the tissues.

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THIO-BISMOL (Sodium bismuth thioglycollate) contains 37.5% of metallic bismuth.

Package . . .

Boxes of 12 and 100 2-cc. ampoules (No. 156), each ampoule containing one average dose (0.2 Gm.—3 grains of THIO-BISMOL). This may be dissolved as needed in sterile distilled water, a sufficient supply of which is provided in each package.

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Dr. Rayfield G. A. Wood, Dalhousie graduate of 1932, has recently returned from New York, and is visiting his parents, Mr. and Mrs. Alfred Wood at Lunenburg. Dr. Wood has completed two years post-graduate at Cleveland, Ohio, one year of which was spent at the Cleveland Charity Hospital, the second at St. Anns Hospital.

Dr. and Mrs. Samuel Marcus, Bridgewater, have been receiving congratulations on the birth of a son, born August 20th, at the Dawson Memorial Hospital.

Dr. W. J. Barton, Halifax, recently sailed by the S. S. Lady Hawkins for Bermuda and the West Indies, anticipating an absence of five weeks.

The marriage took place at Yarmouth on August 10th at the home of Dr. and Mrs. S. W. Williamson of their daughter, Brenda Campbell, to Mr. John Frank LeCain, only son of Mr. and Mrs. Frank LeCain.

Dr. Hubert Lyons, New York, accompanied by Mrs. Lyons and two sons, Hubert and David, has recently been spending a vacation with his father, Postmaster J. R. Lyons, Kentville.

Dr. G. R. Mahaney of Wolfville has taken over the practice of Dr. C. F. Messenger in Granville Ferry, and the latter has gone to take a post-graduate course.

Dr. and Mrs. H. V. Kent and daughter, Miss Margaret V. Kent, returned to Truro on August 19th, from a two month's trip to Great Britain and the continent.

Dr. Monte Haslam of New Hampshire, has recently been visiting in Lunenburg.

The regular meeting of the Cape Breton Medical Society took place in July at St. Joseph's Hospital. About twenty medical men from Glace Bay and surrounding districts were in attendance. Previous to the meeting the members of the medical fraternity were guests at a banquet tendered by the Superintendent and staff of St. Joseph's Hospital, which was held in the Nurses' dining room, housed in the new annex completed this year. Following the banquet, the business meeting was held, at which Dr. Daniel Macdonald, President of the Society, presided. Some cases of more than usual interest were presented by Dr. MacKiggan, Dominion No. 6; Dr. Tompkins, Dominion; Dr. Eric Macdonald, Reserve, and Dr. Morash, Glace Bay. Dr. J. K. McLeod of Sydney in moving a vote of thanks to the hospital and staff, expressed his appreciation of the benefits derived from such gatherings. The President announced that the next meeting would take place in Sydney, on the last Thursday in August.

Twenty-five Years Ago. At a meeting of the Council of the Children's Aid Society, Halifax, a staff of physicians and surgeons was appointed for the Children's Hospital as follows: Consulting surgeons, Dr. John Stewart and Dr. Murdock Chisholm; Consulting physician, Dr. D. A. Campbell; Surgeons,



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TABLETS: tubes of 10 and bottles of 100 and 250 tablets
of 5 and 7½ grains each.

POWDER: bottles of 1 oz. and 4 ozs.

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Dr. Philip Weatherbe, Dr. E. B. Roach, Dr. E. B. Farrell; Assistant surgeons, Dr. L. M. Murray, Dr. W. A. Eagar, Dr. M. A. Macaulay; Specialists, Eye, Ear and Nose, Dr. Evatt Mathers; Skin diseases, Dr. James Ross; Dentistry, Dr. W. C. Oxner. Note the many changes in twenty-five years.

The marriage took place on Saturday, August 28th of Miss Margaret Vicars Kent, daughter of Dr. and Mrs. H. V. Kent, Truro, to Dr. Lennox Herbert Douglas of Galt, Ontario.

Dr. S. G. MacKenzie of the staff of Camp Hill Hospital, with a party of friends from Halifax, spent a few days last month at Mulgrave, N. S.

Dr. Yale Brody, Dalhousie, '34 of Sydney, has been appointed an interne in the Brooklyn Hospital, N. Y. He proposes to specialize in surgery and radiology.

On August 15th, Miss Anne Charlotte Egan, daughter of Dr. and Mrs. W. J. Egan of Sydney, was united in marriage to Mr. G. William Curtis.

Dr. W. H. Eagar of Wolfville recently visited Newfoundland, presumably on sporting pleasure bent.

Dr. and Mrs. C. E. Kinley of Halifax recently had as visitors Mrs. Kinley's parents, Mr. and Mrs. Hummer of Illinois, U. S. A.

Dr. Hugh Martin of Sydney Mines has left for Boston where he will take a post-graduate course in surgery and children's diseases at the Lahey Clinic. For the past three years Dr. Martin has been associated in practice with Dr. Lewis Johnstone, M.P.

Dr. and Mrs. Cordon A. McCurdy arrived from England on August 31st on the S. S. Newfoundland. Dr. McCurdy, whose home is in Sydney has been appointed to the staff of the Dalhousie Medical School, and will be assistant to Professor R. P. Smith, Professor of Pathology. Mrs. McCurdy, formerly Miss Minnie Black, talented pianist and leading soprano of St. Mark's Church, will be a member of the staff of the Maritime Academy of Music.

The BULLETIN extends congratulations to Dr. T. M. Sieniewicz for his fine showing at the Provincial Nova Scotia Rifle Meet at Bedford when he won the Grand Aggregate and the Governor-General's Aggregate. At Ottawa Dr. Sieniewicz led the Nova Scotian contingent for the third year at the Dominion Rifle Association meet.

DOCTORS FEW IN OLD COLONY COASTAL PORTS.

Life is hard in Newfoundland outports. The struggle for existence is waged against heavy odds—the chance of the fisheries, with its almost continual poverty, and disease. And the toll of life is high, for poverty breeds disease and medical attention is often lacking.

Doctors are few in the outports. In the summer, one doctor may have to care for the residents of a half dozen or more communities. In the winter, the problem of providing medical treatment becomes more acute. Roads are, more often than not, blocked with snow, and travelling from village to village is almost impossible.

The villagers live through the winter—often they die—without seeing a doctor. A demand for provision of more adequate medical facilities to cope with this condition is made in the press by Rev. John Watkins of Harbor Buffett, one of the coastal communities.

In certain parts of the country, he said, there is “grave neglect” of the sick poor. The Board of Health, he declares, should take steps to see that medical aid is provided the year round. Of late, he has been confronted with “lamentable cases.” He cites one:

“To-day I was informed a man was about to die, and I was applied to for further aid. This man was well and fishing all summer. Later in the Fall he developed some trouble in his back, and had to cease work.

“Living in the home were his wife and himself. His disability soon brought the fuel supply short, and the dole was the only means of sustenance. For weeks these people lived this way, till a nephew took them into his home to save them from actually perishing of cold.”

The clergyman told of his ineffectual efforts to get assistance from St. John's. And then he says: “This man will die to-night or very soon.”

The letter goes on for several more paragraphs: Below the signature is a terse postscript: “Before submitting this to the post, word has been received that a doctor is being sent—but the man is now dead.”

He describes another case. A man had been stricken blind. “The wife, daughter and son were sorely frightened when they arrived at my house. The suffering father had gone temporarily insane through the pain. The relieving officer reported his condition and, after receiving no instruction, eventually issued a pass for the man to go to St. John's. But he was told not to send him, and but for the sympathy and compassion of a few friends, who raised enough to pay his travelling expenses, he might be now permanently insane or possibly dead.”

“Enough of tragedy,” the Minister writes. “My point is this; cannot some solution be found? This section of Newfoundland that I am called to live in, is open for navigation all the year round, and there is a coastal boat on continually. In view of this fact, there is no pardonable excuse for the conditions above related. However short the public funds may be, it is the duty of the State to care in some measure for those of her citizens who are no longer able to care for themselves. Will not then the existing authority become alive to the situation and make some provision for the cause of the sick poor? They are human and we must have in practice some measure of modern civilization and do for them the best possible. Which we strive to do for even the lower orders of life.—From *Sydney Post Record*.