

Pernicious Anemia*

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THE recognition of pernicious anemia is frequently one of the most difficult tasks assigned to the physician. The signs are often so indefinite that one rightly hesitates to crush a man with a diagnosis that up to the present has meant almost certain doom.

The etiology of pernicious or Addison's anemia is still unsolved. We do know that there is increased blood destruction and the constant absence of HCL and the frequent history of glossitis suggest a gastrointestinal origin. Evidence is gathering that the achlorhydria is frequently present for years before the onset of definite signs of pernicious anemia and we may ultimately find this to be a general rule. The absence of the antiseptic HCL may permit the entry of the specific organisms; we do know that the upper intestine contains more microorganisms, especially of the fecal types, in pernicious anemia than in health and that extracts of the intestine are highly toxic. The hemolysins responsible for the anemia are possibly elaborated here. Its familiar predilection may be also due to a transmitted acid deficiency.

SIGNS AND SYMPTOMS.

Our patient, frequently a male of middle life, shows a peculiar lemon pallor, usually without wasting. He gives a history of early fatigue, loss of ambition, dyspnoea and palpitation on exertion, drowsiness, vague digestive disturbances and frequently a history of a *sore tongue*, "as if scalded by hot tea." One may note the large flabby "bald" tongue (it is seldom coated in pernicious anemia), the frequent puffiness of the ankle and the ataxic or spastic gait. The *cord changes* should be especially emphasized, as they are frequently overlooked, occur in eighty per cent. of all moderately advanced cases and may, indeed, be the initial signs of the disease. The degenerative changes affect chiefly the posterior and lateral columns giving the picture of "subacute combined sclerosis," the posterior column lesions contributing the "pseudo-tabetic" signs of ataxic gait, rhombegism, lightning pains, "pins and needles" in the extremities, absent knee jerks and areas of anaesthesia, and the lateral column lesions the spastic changes, the positive Babinski and occasionally increased reflexes. One patient recently seen had been treated for *tabes dorsalis* for eight months.

*Address given before several County Societies in Nova Scotia during a Canadian Medical Association Postgraduate Tour in May and June 1927.

Two years ago another patient, ruddy faced, consulted the writer for "pins and needles" in the hands; his blood count and hemoglobin were normal but his smears showed early yet definite pernicious changes, a diagnosis confirmed by subsequent developments.

The *blood picture* gives us most help in diagnosis, although during remissions it may approach very closely to normal. The red cell count is lowered to a greater degree than is the hemoglobin, thus giving a color index higher than 1.0. Counts below two million are very common. On examining a smear one is at once impressed by the good color of the erythrocytes. No other disease shows such a preponderance of large red cells—the macrocytes. These are frequently up to 10 or 12 *m* in diameter. The average cell is 8 or 8.5 *m* in breadth as compared to the normal 7.6 *m* or the still lower diameter of the cells in secondary anemia. It is well to remember that cells shrink about one micron on drying in a smear and nearly two microns when stained. Megaloblasts, when found, are strongly suggestive of pernicious anemia, but they also occur in various skeletal tumors and, inasmuch as they are relatively rare in early pernicious anemia, one should not await their appearance to make a diagnosis. One finds a leucopenia, diminished platelets and mononuclears, and the polymorphs present are largely senile; i. e., the nuclei are multisegmented, many showing six, seven, or more divisions. This "uebersegmentierung" is carefully noted by the Viennese, who attach considerable importance to this "shift to the right."

The *Volume Index* is urged by various writers as an aid in diagnosis. It has this advantage over the color index that, while the C. I. may occasionally fall below 1.0, the V. I. never falls below 1.0. and averages about 1.19. No other anemia gives this reading. The disadvantage is that it requires the use of a haemotocrit, there may be several sources of error and it is essentially a laboratory procedure.

DIFFERENTIAL DIAGNOSIS.

While the foregoing signs are often present in a sufficient degree to permit us to make a definite diagnosis, we are, in many other cases confronted with a much more difficult problem. *Carcinoma of the stomach*, for instance, may give one digestive disturbances, a lemon tint to the skin and an achlorhydria. Carcinoma usually shows loss of weight, positive X-ray findings, a decreasing urobilinogen content in the urine and a leucocytosis. The free HCL may be present and has even been found increased. A large spleen suggests pernicious anemia rather than carcinoma of the stomach. It is well to remember when suspecting carcinoma that "a palpable spleen is the friend of the patient."

Anemia due to *sepsis* may confuse the diagnosis, especially if retinal and other hemorrhages occur. Here however, we have chills, fever, a leucocytosis, and the blood culture may be positive. The

disease progresses more rapidly than do most cases of pernicious anemia.

Hemolytic icterus must at times be ruled out, due to the signs common to both diseases of slight jaundice, hemorrhages, enlargement of the spleen and increased urobilin and urobilinogen in the feces and urine. One must remember that hemolytic icterus shows no achylia and the erythrocytes show diminished resistance to hypotonic saline. In pernicious anemia there is a normal or an increased resistance of the red cells. There is also an increase in the mononuclears in hemolytic jaundice. The anemia due to *dibothriocephalus latus* is probably the most difficult to rule out. One should pay special attention to the stool for any evidence of parasites and it may be of help to recall that in the helminthiasis anemia the skin tends to be a pale brown rather than lemon tinted.

TREATMENT.

It is difficult to properly assess the various treatments employed for we must remember that approximately 80% of all cases have at least one remission—no matter how treated. Some of these remissions may last for years—five, seven or longer. Most clinicians agree that symptomatic improvement follows the administration of *acid hydrochlor. dil.* How much should be given? The B. P. dose is quite inadequate. There is practically no germicidal activity below a free HCL value of 10 and Shaw has determined that 1.5 to 2.5 drachms of acid hydrochlor. dil. (B. P.) given by the continuous method over a period of 2.25 hours following meals will restore the effective germicidal activity of the gastric juice. These large doses should be commenced gradually and the acid given in six or eight ounces of orangeade, weak lemonade or other drinks which can be sipped during the meal and for two hours afterward. Some physicians favor the oral or hypodermic use of *arsenic*. Iron is not indicated—the patient has already more available than can be utilized.

Blood transfusion has yielded rapid and prolonged remissions in many cases, but the results are not constant and, as with the acid treatment, the patients sooner or later fail to respond. It is generally agreed that smaller transfusions of 300 to 500 c.c., frequently repeated, are more efficacious than a single large transfusion. To be effective, blood transfusion should be given early, not as a last resort when the patient is dying. I have found it to be the best agent for instituting a remission.

Very recently Minot and Murphy have recommended a diet high in *liver*. This is combined with an abundance of fruits and fresh vegetables; fat is reduced to a minimum. Such a diet, in cases studied so far, seems to improve the patients' condition quite rapidly and has a very favorable influence on the blood picture. I have been quite impressed by the progress made by some of these patients. It is advisable, of course, to serve the liver in as many varied ways as

possible. The liver may be fried, it may be served as a liver soup, as a German "leberwurst" or in several other ways. The menu recommended at the Toronto Western Hospital is as follows:

GENERAL INSTRUCTIONS: PERNICIOUS ANAEMIA.

At least 12 hours rest in bed, from 10 P. M. to 10 A. M., and then again from 1 P. M. to 3 P. M. preferably with windows wide open or outside on porch.

BREAKFAST: 8 A. M.

Fruit—Orange, grapefruit, pineapple, etc.
 Cereal—Oatmeal, farina, bran foods.
 Liver—4 ozs.
 Milk—4 ozs.
 Whole wheat toast.
 Tea or coffee.
 Cream—2 tbsp.
 Butter— $\frac{1}{2}$ patty.
 No Bacon or Cream Cheese. Sugar very sparingly.

DINNER:

Fresh liver, 4 ozs. Cook without fat. Boil, broil, bake, mince or make into soup.
 Plain vegetable broths or soups.
 Raw or scraped beef, boiled or broiled steak, broiled chops, boiled, broiled or roasted chicken, 2-4 ozs.
 Two or three vegetables from the following:—
 Asparagus, lettuce, spinach, peas, string beans, cabbage, cauliflower, tomatoes, celery, onions.
 Fresh fruit such as:—
 Peaches, apricots, pineapple, oranges, grapefruit, berries.
 Dates, prunes, figs and raisins to be eaten freely.
 Bread as desired. Butter very little.

4 P. M.:

Fruit juices.
 Two zwiebacks or biscuits.

SUPPER:

Baked fresh liver, 4 ozs.
 Lean meat or fish, 4 ozs. or 1 egg, raw, poached or boiled.
 Two or three vegetables as above.
 Dessert in the form of custard, puddings or jellies.
 Cream, 2 tablespoons.
 Butter, $\frac{1}{2}$ patty.
 Whole wheat toast, rusks, biscuits.

MUST NOT HAVE:

Fats of any kind. Meats must be lean, all fats trimmed off. Only four tablespoons of cream, butter, 1 patty. No fried foods of any kind. Not more than 8 ozs. milk daily. Avoid excess of salt.
 The liver is essential and must be weighed.
 Beef, calves, chicken, lamb's liver or kidney, prepared in any way but without fat.

One is frequently requested by patients on a liver diet for some recipes that will enable them to get away from the usual fried liver. Our dietitian has kindly prepared the following list:

PREPARATION OF CALVES' LIVER FOR PERNICIOUS ANEMIC DIETS.

LIVER JUICE:

Score the raw liver and sear slightly in a pan, for less than a minute. Place the seared liver in a square made of gauze (several folds) and squeeze out the juice. About 150 cc of juice from 2 lbs. of liver. *Serve cold.* Orange juice may be taken after it.

BROILED LIVER:

Dash liver in hot water, remove the skin, and broil until done, or pan broil in mineral oil. Five minutes are generally allowed for cooking.

SCRAPED OR SIEVED LIVER:

Dash liver in hot water and remove the skin. Broil the liver 5 to 10 minutes (until cooked through) and scrape through sieve, or press through potato ricer.

LIVER STUFFED IN GREEN PEPPERS OR TOMATOES.

Stuff sieved or finely chopped liver (cooked) which has been moistened with tomato juice or broth, in the tomato or green pepper and bake. Onion may be added to the chopped liver for flavor. One pepper or tomato will hold 60 grams of liver.

LIVER SOUP.

Add 90 grams of scraped or sieved liver to 200cc. of clear tomato or chicken broth with fat removed. Season with onion if desired.

LIVER SOUP. (CREAMED).

120 grams chopped liver, 220cc. milk, 4 tsp. flour, 10 grams butter. Make white sauce and add liver.

LIVER HASH.

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| ½ cup ground liver (75 grams) | ½ cup boiled rice (100 grams) |
| ½ tsp. salt. | ½ tsp. chopped onion. |
| Pepper. | ¼ tsp. chopped parsley. |
| 1 tb. bread crumbs. | ½ egg or 1 egg white. |

Add the beaten egg to the liver, then the seasoning and rice. Mix well, turn into a buttered casserole, cover with bread crumbs and bake 30 minutes.

This may be served with tomato sauce. To vary the flavor add ¼ cup chopped green pepper or celery.

BROWNEED HASH.

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| ½ cup ground liver (75 grams). | ½ cup mashed potato. |
| 2 slices bacon. | 1 tsp. chopped onion. |
| ½ tsp. salt. | Pepper. |

Grind or chop bacon, turn into a hot frying pan and brown. Mix remaining ingredients and add to bacon, pouring off any excess fat. Brown well and serve on toast.

LIVER CROQUETTES.

$\frac{1}{2}$ cup ground liver (100 grams).	$\frac{1}{2}$ tsp. salt.
$\frac{1}{4}$ cup milk.	Pepper.
1 tb. flour.	Celery salt.
1 tsp. butter.	1 tsp. chopped onion.
Egg.	$\frac{1}{4}$ tsp. lemon juice.
2 tb. bread crumbs.	

Add seasoning to the ground liver. Make a sauce of butter, flour and milk. Add liver; mix well and shape; roll in egg and in bread crumbs. Cook in hot fat. Drain and serve immediately.

LIVER PATTIES.

$\frac{1}{4}$ cup liver (75 grams).	1 tsp. butter.
2 or 3 mushrooms.	$\frac{1}{2}$ tb. flour.
$\frac{1}{2}$ tsp. salt.	4 tb. milk.
Pepper.	

Make a white sauce of butter, flour and milk. Add liver and mushrooms which have been chopped or ground and continue cooking for ten minutes. Turn into a patty shell or casserole and serve at once.

LIVER BALLS WITH SOUP.

$\frac{1}{2}$ cup ground liver (150 grams).	2 tb. flour.
1 egg.	1 tsp. salt.
1 tsp. onion juice.	$\frac{1}{2}$ tsp. pepper.

Combine the ground liver and beaten egg; add seasoning and flour. Drop by teaspoonfuls into boiling vegetable soup and let cook for fifteen minutes.

May substitute $\frac{1}{2}$ cup rice or potato for flour in making the liver balls.

Two teaspoons chopped green pepper may be substituted for onion juice.

The Registered Nurse's Association of Nova Scotia has appointed its Board of Examiners for the year 1927-28. These are,—Doctors G. H. Murphy and K. A. McKenzie of Halifax, Mrs. B. B. Barker of Highland View Hospital, Amherst; Sister Mary Rita, St. Joseph's Hospital, Glace Bay; Miss M. A. S. Watson, General Hospital Yarmouth, and Miss Gladys E. Strum of the Victoria General Hospital, Halifax. These examinations are held in May and October in Halifax and Sydney. It is rumored that this Association is moving to have the preliminary requirements materially raised. This move should be supported.

Heard in the railway town of Stellarton:—Mrs. Carr, the Engineer's wife, carrying her latest baby, the tenth, meets Mrs. Murphy, who exclaims "Arrah now, Mrs. Carr, and there ye are up and around with another little Carr!" "Yes, Norah, another little Carr it is, and as far as I am concerned I pray the Lord its the caboose."

Essential Hypertension

Practical Considerations in its Management.

Part I

THE writer believes that the handling of this condition is often too stereotyped, that disheartening restrictions are often placed on patients in the realm of diet, exercise, etc., and that far too much reliance is still placed on drugs as vascular depressants in its treatment. By the term essential Hypertension we mean to-day a state of primary vascular hypertension without the coexistence of such demonstrable renal impairment as can be determined by any test of kidney function. (Hyperpiesia of Allbutt, and the hypertensive cardio-vascular disease of Janeway).

Because of its great frequency, obscure origin and pathogenesis, and its suspected relation to vascular cardiac and renal disease, interest in this condition has been untiring.

A recent review of the literature recalled a paper by Du Bray, Instructor of Medicine in Univ. of California Medical School, May, 1924, which he regards as sound and rational and as representing fairly his own position to-day.

He summarizes the article for the benefit of his confrères.

What are the Underlying Factors in the Production of Hypertension.

With a mere reference to the two explanations of the increased resistance in the vascular bed which have so long held the field, viz the chemical and the mechanical, we may assume the modern position of a careful observer like Christian of Harvard, who believes that the cardio-vascular mechanism is disturbed from a multiplicity of causes. A rational therapy of any disease begins with a complete understanding of the fundamental cause. We have not yet attained this goal in essential hypertension, and it behooves us therefore to keep our views in the fluid state. The management of the condition must, therefore, be largely on an empiric base. Notwithstanding this, there is a growing feeling that much can be done in early cases by preventing premature and unnecessary break-downs.

What are the Reasons that the Early Management of Essential Hypertension is of Especial Importance?

T. Janeway's accurate observations show that death among patients in private practice occurs in the following ways, arranged in the order of their frequency: (1) By gradual cardiac insufficiency;

(2) With uraemic symptoms; (3) Apoplexy; (4) from some complicating acute infection; (5) in an attack of angina pectoris. For this reason essential hypertension offers an unusual opportunity for the study and control of early disease. A large number of the patients are seen in the incipient stage, and if properly managed before too great strain has been imposed on the circulatory apparatus, much can be done to arrest, modify and retard the process.

Du Bray deals mainly with the management of the early stage, and then very briefly with the advanced and late stages.

The Early Stage.

Discovered accidentally or in the course of routine medical examinations, the majority of the early cases are asymptomatic and consequently do not consider themselves sick. This fact may lead to halfhearted co-operation unless the nature of the process as we know it is discussed clearly and frankly at the time it is discovered. But confidence and hope must be inspired and undue fears dispelled in the discussion. The realization that the height of the blood-pressure is of far less importance than the conditions which underlie it must be firmly established. The importance of an intimate knowledge of the patient's daily life is stressed. A careful history to ascertain the type and surroundings of his work, the amount, kind and regularity of food, the personal habits, the amount and kind of exercise, the presences of nervous strain and excitement, the amount of recreation, the hours and regularity of sleep, the frequency and length of vacations, and other such details. The importance of these facts in planning a regime at once practical, acceptable and beneficial to the patient cannot be over-estimated.

Rest and Relaxation.

In the early cases complete rest in bed for a short time may be indicated for those showing evidence of circulatory strain. A change of occupation may be advisable, but can usually be avoided by reducing the number of working hours, or by rest periods after meals. Complete giving up of business is rarely advisable—it often hastens deterioration, and may be disastrous at this stage. No new enterprises with increased responsibilities should be taken on. Regular vacations should be insisted on. Regular hours for sleep must be firmly established. Refraction errors should be corrected. A morning saline or dose of mineral oil is often helpful. Hurry and worry must be reduced to a minimum and every effort made to get the patient's mind relaxed and tranquil. Exercise and Recreation. Systematic exercise is necessary, and important in maintaining circulatory efficiency. Golf, walking, swimming, horseback riding and gardening are all excellent recreations for early cases. The spasmodic week-end orgies of activity are taboo. Walter Camp's book is recommended by Du Bray, with its well known daily dozen exercises as a substitute for

outdoor activities. The cultivation of some hobby is most useful and helps avert useless introspection.

The Problem of Diet Regulation.

No rigid restrictions are necessary in the early cases except in those who habitually abuse food. The low-total caloric, low-protein diets formerly advocated now seem undesirable. Patients definitely over-weight as determined by one of the modern formulae should be slowly reduced: (1) By a limitation of the total diet; and (2) by a sharp reduction in the fats. Patients definitely underweight who are quite numerous should be built up by additions to the fat and carbohydrate components. The diet used by Du Bray is simple, well balanced, contains (.8 gm. to 1 gm. protein per kilo of body weight), sufficient caloric value for the energy requirements (2,000 to 3,000 calories per day), easily digestible, suitable to the powers of mastication of the individual, and is free from excess of meat extractives, condiments and salt.

The method of prescribing a diet based on the foregoing principles is somewhat as follows: The articles of the diet and the amounts which are to be allowed for the total 24 hour period, are checked on a specially prepared diet card containing lists of all the ordinary foods and their proportion of protein, fat and carbohydrate. In this way fairly wide latitude in the choice of foods of approximately the same food value can be allowed. The method is so simple and practical that the patient soon acquires a sufficient knowledge to use the diet card intelligently, with a little supervision.

Sodium Chloride.

This question is still unsettled. Mosenthal, Christian and others (in opposition to Allen's views) do not find that salt restriction influences the B. P. Du Bray himself finds a salt poor diet (2 to 3 grms. per diem) even over prolonged periods does not affect the pressure, but is effective in relieving symptoms especially the characteristic morning headache.

Physiotherapy, Hydrotherapy, etc.

In early cases the bathing habits need not be modified. Hydrotherapy is a valuable aid to diet restriction and exercise in weight reduction cures and may be utilized for this end. High frequency current produces temporary results. It should only be tried when supervised by an expert. Massage is very useful in elderly patients with vascular changes.

Infection, Syphilis and Tobacco.

Focal infections should be noted in the preliminary survey and, although no direct relationship has been established, Du Bray thinks that they should be gradually and carefully eradicated. This is to be done for two reasons (1) to maintain the general resistance of the patient,

and (2) to protect the cardio-vascular mechanism from added strain from infection.

Ophuls has recently pointed out the injury to the arteries which may arise from these chronic septic foci.

Patients with essential hypertension stand anaesthesia and surgical trauma surprisingly well, especially if given a short period of preparation. Syphilis, as far as we know, plays little or no part in the production of essential hypertension. Its incidence is found to be very low in hypertensive statistics.

Tobacco is better restricted in all cases, but positively interdicted in those who show tachycardia and cardiac irregularities.

Drugs and Organotherapy.

We have no drugs which directly influence the course of the condition. Digitalis may be useful at times in early cases that are beginning to show circulating strain. Short courses of this drug combined with rest should *not* be withheld until there is definite cardiac failure.

Insomnia and nocturnal restlessness must be controlled. The best remedy is chloral hydrate. In therapeutic doses it is not a cardiac depressant. Fifteen to 20 gr. taken in warm milk at bed time will usually ensure a good night. The nitrates are only of value for emergency use. Potassium iodide is useless except in suspected lues or advanced arterio-sclerosis.

The Management of the Advanced and the Late Stages.

Characterized by both subjective and objective findings, cardiac hypertrophy, thickened arteries, and accentuated, aortic second sounds are almost always present. In spite of slight urinary findings the renal function remains comparatively good. The clinical picture at this stage of the process may remain indefinitely in statu quo, and management requires no special measures beyond those outlined already for the early cases.

The Three Important Complications of Advanced Essential Hypertension.

Myocardial Insufficiency. The management requires rest in bed, reduction in diet and fluid intake and digitalis. The Karrell diet, or a modification of it, serves to reduce the food and fluids. Violent purging should be avoided—vegetable laxatives or enemata are safer. Digitalis is of great service. In the so called *high blood-pressure stasis* by its redistribution of the blood from venous to arterial side its effects may be dramatic. Eggleston has shown that digitalis has little influence on the systolic pressure, that it tends to produce a definite reduction in the diastolic, and especially to increase the pulse pressure.

In the presence of good kidneys, the skillful use of short courses of diuretics, such as theocin, may be effective in increasing elimination

by the kidney. Venesection of 500 to 800 c. c. of blood should be considered, particularly in cases where the circulatory apparatus appears to be primarily at fault, and the kidneys to be in comparatively good condition.

Threatened Cerebral Haemorrhage and Renal Insufficiency with Uraemia.

The former requires complete rest, an ice-cap, vaso-dilators (e.g. nitrites), sedatives, and possibly lumbar puncture. The management of uraemic states with retention of nitrogen, etc., is not within the scope of this paper.

Summary.

It appears that the management of individuals manifesting essential hypertension is best planned on broad lines, tentatively accepting the postulate that the process results from a disturbance of the cardio vascular mechanism incited by several underlying conditions. Bad heredity, unhygienic living, excessive mental and physical strain, and infection, may all play a part. A regime for each case should be based on a careful study of the individual's daily life and habits. The readjustment of the manner of living should take into consideration the patient's work, food, exercise, recreation, interests, etc., and all obvious faults be corrected. The large number of early cases observed in comparatively young people offer an unusual opportunity for preventive medicine, since much can be accomplished by simple measures without enforcing a life of invalidism upon them. The fact that over half of all cases of essential hypertension eventually die of some form of circulatory disease, emphasizes the paramount importance of protecting the cardio-vascular system from any unnecessary strain and supporting the heart as emergencies arise.

It is stated that a Truro farmer proposes to apply to the Supreme Court of Nova Scotia for an Injunction against having the restricted area for bovine tuberculosis made effective in this province. Why have not the medical men of Nova Scotia given their cordial support to this effort to lessen the ravages of this disease? Against our best knowledge we let a misguided farmer for questionable reasons lead the campaign against the proposal without letting him know where he gets off at. Shirking as usual.

General practice is still, in spite of increased specialism, the future field of activity for the largest number—probably three quarters—of qualified medical men, and there is plenty of scope and opportunity. (Lancet).

Scientific Medicine

The Contribution of Pharmaceutical Houses to Medical Therapy

F. A. Millard M. D.

EMPIRICAL therapeutics, formerly a domain ruled by the general practitioner, later invaded by the specialist and more recently taken over in greater and greater proportions by the trained laboratory worker, has been carried through this process of evolutionary development by the operation of forces, a few of which may be discussed in their relation to the practice of what is generally known as "Scientific Medicine." The number of physicians who resent the encroachment of exact scientific inquiry, preferring, instead, recourse to observation and experienced judgment, is growing small by degrees and beautifully less, for while clinical experience is an asset of incalculable value to the physician, no one can afford to ignore the service that has been and is being rendered to the profession of medicine by such related sciences as Biology, Pharmacy, Botany, Physics, Chemistry, Mechanics, Heredity and Sociology.

To physics we owe microscopes, x-rays, ultra-violet radiations, blood-pressure determinations, high-pressure sterilizers, correction lenses for ocular defects, not to mention telephones and other conveniences which have now become indispensable. No less wonderful have been the contributions made by the chemist. To him we owe the antiseptic and the anesthetic. Modern physicians or surgeons would shudder at the thought of trying to carry on without the assistance of contributory sciences. Carbolic acid, bichloride of mercury, silver nitrate, chloroform, nitrous oxide (to name only a few) were contributed to the service of the healing art by scientific workers who knew little or nothing about the practice of medicine or surgery. And who can estimate the full importance of such discoveries as radium and the roentgen rays?

To what extent Biology has served to fashion medical conceptions into previously strange and unfamiliar forms, it is impossible to estimate. The various metamorphoses, once regarded as fixed biological dicta, but now studied as adaptations to environment, are being turned to good account in the scientific treatment of hereditary susceptibility to disease. A brief microscopic study of a rickety epiphysis restored by vitamin "D" illustrates the profound and far-reaching influence exerted by the trained biologist who wrested from nature the vital secret that

seems to control the metabolism of calcium and phosphorus as related to bone growth.

Inasmuch as the employment of herbs represents probably the most primitive as well as the most universal attempt to control or alleviate human suffering, an intimate knowledge of the history of pharmaceutical manufacture would be of first-class value to every member of the medical profession. From comparatively small beginnings during the latter part of the last century we now see vast organizations engaged in making galenical preparations by scientific methods. So intimately is this branch of scientific endeavor linked up with the physician's daily routine that a closer examination of the methods employed, in converting crude drugs into familiar products, would be of interest to the careful and discriminating physician.

Raw materials for the manufacture of pharmaceutical products are gathered under all conceivable conditions, so that their rigid inspection by a botanist becomes imperative. The extent to which this trained scientist safeguards the doctor and his patients, no less than the pharmaceutical manufacture, is demonstrated by the huge tonnage of useless substitutes that he discards every year. Eternal vigilance is, here as elsewhere, the price of safety. When the doctor enters the sick-room, much of his power for good or ill is indissolubly linked up with the scientific accuracy and conscientious integrity of the botanist who o. k's the crude plants from which his prescription is dispensed.

Some of the larger pharmaceutical houses have their own herb gardens for the growing of such plants as digitalis, cannabis, and belladonna. Under the supervision of a botanist this plan is said to work out satisfactorily, inasmuch as it facilitates selective cultivation and the consequent retention of those strains that yield the highest active medicinal content.

Well selected raw materials are only half the story, however. Unscientific methods of extraction may not only waste valuable raw material but partially destroy some of the most valuable curative properties of the drug. Evaporation *in acuo* is one of the more modern devices whereby concentration is obtained at a temperature much below that required at ordinary atmospheric pressure. In view of the injurious action of heat upon many organic compounds, the value of this procedure becomes apparent.

Fifty years ago, when many practitioners not only dispensed but actually manufactured their own remedies, they could safeguard their patients more effectively than can the present-day physicians who buy or prescribe unstandardized pharmaceuticals. More particularly does this apply to the hyperpotent series, such as atropine, hyoscyamine, digitalin, physostigmine, and to extracts of thyroid, pituitary, adrenal and other ductless glands. Standardization of these active principles by trained technicians offers the only safeguard against over-dosage and the only guarantee of normal activity. The fact that strictly standardized medicinal preparations cost more than others is naturally

to be expected, inasmuch as more care is taken at every stage of their manufacture. Standardization, at first chemical, now includes testing on animals and, in some laboratories, clinical experimentation.

The more recent advances made in the prophylaxis and treatment of such disorders as diphtheria, scarlet fever, tetanus, typhoid fever, pertussis, rabies, venereal disease, rickets and malnutrition, have enormously complicated the processes of manufacture. Highly trained biologists, chemists, bacteriologists, pathologists, and other scientific workers have been multiplied within recent years to meet the requirements incident to the manufacture of such products as specific antitoxins, vaccines, parasiticides, endocrine products, antigens, vitamins, and various other curative and immunizing preparations.

As knowledge of disease extends, microscopic and chemical analysis goes far to replace clinical observation in the matter of diagnosis. So we have the Wassermann, Kahn, and other tests for syphilis, gonococcus antigen, tuberculin and tubercle antigen, and serums for the differential diagnosis of dysentery, meningitis, typhoid and paratyphoid fevers, etc., all contributed by research workers in commercial or endowed institutions apart from the direct practice of medicine.

Only a comparatively small proportion of medical practitioners can ever hope to familiarize themselves, even in the most general way, with the minutiae of pharmaceutical manufacture. It is necessary for the great majority to rely upon the integrity of the manufacturing house. Anxiety on the part of pharmaceutical manufacturers to live up to this high trust has led to the founding of expensive biological laboratories manned by doctors of medicine, pharmacists, chemists, biologists, bacteriologists and other scientific research men and technicians. Innumerable suggestions, clinical observations, theories and experimental data submitted by physicians, surgeons and other scientific workers, supply such a laboratory with an abundance of raw material, and the process of refinement, acceptance and rejection goes on interminably.

When a discovery that seems to possess therapeutic promise is made in the laboratory, it is the practice of some manufacturers to subject it to clinical trial. Certain physicians who have unusual opportunities for making clinical observations are asked to try out and report on the efficiency of the new remedy. Should the preponderance of clinical evidence prove favorable, the preparation is carefully standardized, protected as far as possible from deterioration, and offered to the profession generally. New medicinal preparations offered by firms which adopt this system of making a clinical assay are not, therefore, novel, in the strict sense, but have already passed safely through the first degree in their initiation into the family of official remedies. Reluctance on the part of many members of the profession to be the first to adopt or encourage innovations has, possibly, been unduly featured in the past as a commendable conservatism, but it seems questionable whether it will continue to be so regarded

as scientific accuracy more and more replaces guesswork in the diagnosis and treatment of disease.

Scientific methods combined with systematic business principles dominate all branches of industry to a more marked degree with each succeeding year. The Curies discover radium, and organized business offers it to the world; Banting isolates insulin, and pharmaceutical manufacturers prepare it for the profession; chemists invent tetraiodo-dephenylphthalein and Roentgen discovers the x-rays, and by means of these, supplied by commercial houses, the gall-bladder becomes visible; and this is the history of all material contributions that are now being made to the healing art.

The practice of medicine is no longer an isolated profession. In the light of modern thought it may rather be conceived as one of the great scientific developments of the past half-century. Like all other branches of human endeavor, it has been profoundly modified by the general advance in knowledge, and the rising generation of physicians and surgeons are regarding the pharmaceutical manufacturer more and more as a sort of central clearing house wherein therapeutic agents are analyzed and sifted before they are recommended for general use by the medical profession.

“THREE CAUSES OF TUBERCULOSIS.”

Advice by *Chiropractor* (“Dr.”) Frank McCoy for the Attention of the Nova Scotia Commission on Tuberculosis.

“There are only three important underlying causes of Tuberculosis. I will mention them in the order of their importance.”—

1. “Every Tubercular patient has a Tight, almost Immovable Diaphragm.”
2. “Enervation always Precedes the State of Tuberculosis.”
3. “Dietetic Errors Create Toxins in the Blood which Furnish the Soil for the Growth of Tuberculosis.”

Should any reader of the newspapers publishing such *valuable* information, as that just given, desire further information on matters or “questions on Health and Diet,” instead of consulting the Chairman of the Tuberculosis Commission, or its Medical Adviser, or its Medical Commissioner, or its staffs of consulting and examining doctors and visiting Nurses, why not just write to “Dr.” Frank McCoy, c/o the paper from which you read the article; he will gladly answer. Do not forget to enclose stamped, addressed *large* envelope for reply.

S. L. W.

The Nova Scotia Medical Bulletin

Official Organ of The Medical Society of Nova Scotia.

Confined to, and Covering every Practising Physician in Nova Scotia.
Published on the 5th of each month. Advertising Forms close on the
1st of month of issue. Subscription Price:—\$3.00 per year.

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VOL. VI.

OCTOBER 1927

No. 10

Doctors in Literature

OLIVER Holmes and Oliver Goldsmith have sometimes been compared. In judging the relative merits of two such men and basing one's judgment on the impression a reading of their works has left upon him, the verdict seems to be one of wide contrast. Similarity ends with the consideration that they were both poets and both doctors. Holmes was a brilliant conversationalist, a wit and social idol, all of which poor old Goldsmith was not. The latter was much the greater poet; the former had the more stable mind, the more practical vision and withal was much the greater scientist. Goldsmith's scientific knowledge was but an incident in his life, used only under pressure when he was compelled to turn out something on natural history for an exacting publisher, and where the question of his bread and meat played a more important part in directing his efforts than the exactness of his observations or his fondness for the work. His work on Natural History, we are told, abounds in errors. Having his attention drawn to some of the most palpable ones by his critics gave him little or no concern and they might go "the primrose path;" for such a work was not the offspring of his choice; it was born out of wedlock, for his real love was poetry; and on this child of his fine fancy he lavished all the affections of his soul. The best he would do for the illegitimate offspring of science was to clothe it in the fine raiment of his pure literary style; and so well did he do this that many of the blemishes and deformities of the infant were successfully concealed, or at least forgiven.

It ought to be said, however, whatever evidence of a scientific training Goldsmith showed was in the realm of Natural History. Among the birds and the beasts and the insects, with their varieties of shapes and habits and colors, he found elements which touched his poetic fancy. He was a naturalist only insofar as the phenomena presented by the objects of his study had enough in them of the poetic

and the dramatic to arouse his interest. Consequently his observations were not necessarily accurate. They bore about the same relation to real objective truth as a standard work of fiction bears to the tale in real life which furnished its basis and inspiration. We have no record to the effect, nor can we conceive of Goldsmith in hip boots wading through pools and swamps searching for some slimy specimen of protozoa and chuckling with real scientific ardour over the prospects of solving the problems of organic life. Searching for first causes was not to his liking and he generally made shift to go without such mental exertion.

So little of a scientist was Goldsmith that it has been questioned that he ever obtained a medical degree. There is not a suggestion in any of his literary productions that he had a medically trained mind. Dr. Oliver Wendell Holmes, on the contrary, is full of medical thoughts. Goldsmith announced himself a doctor on his arrival in London and while members of his famous club are on record as having cracked jokes on his knowledge, or lack of knowledge, of physic, there seems to be no evidence of any questioning his right to the title, Doctor; and it was as Dr. Goldsmith he was referred to by press reports and by his friends. If he were not a doctor of medicine he certainly was not a doctor of anything. Even Dr. Johnston addressed him as Dr. Goldsmith, and we can hardly conceive of this renowned old scholar making use of a title or term if there were attached to it the least suspicion of its being spurious or undeserved.

So it would seem that we must give him formal admission to our ranks; but having done this, we have conceded about all his most exacting apologists could demand in the way of placing any measure of fame or recognition on the medical exploits of Oliver Goldsmith. Once or twice during his life he made a gesture toward medicine. He presented himself once at Surgeon's Hall to have his medical qualifications examined into with a view to an appointment in the East Indian Company. He probably failed, because he did not get the appointment. He refused to discuss the incident afterward. His last medical feat was his insistence in treating his own case. He carried on with a perfectly normal amount of disaster until Burke and Johnson tried to save him from himself by calling a real physician. Perhaps nothing could have saved him. He was then a broken down, prematurely aged man; probably suffering from Brights Disease. He was laid to rest in the churchyard of the Temple in an unmarked grave, long since lost and forgotten. Even Washington Irving, who has written the most sympathetic Life of Goldsmith, finds little to tell of the effects of Goldsmith's death on the members of the club. Burke, he says, burst into tears, and Reynolds laid by his brush for the day. But the unmarked grave, the absence of any public statements of appreciation by the intellectuals composing the historic club show a strange indifference to the memory of one, who with all his faults, was in the words of Dr. Johnston, "A very great man."

G. H. M.

A Golden Jubilee

A Presentation to be made to Doctor John Stewart.

As was noted in the Proceedings of the last Annual Meeting of the Medical Society of Nova Scotia reference was made in the Presidential address to the Golden Jubilee of Doctor John Stewart, being a graduate of Edinburgh University of 1877. In the Minutes, August BULLETIN, page 30, the record is,—“The President was instructed to name a Committee of three to carry out the suggestion. The President subsequently named,—Dr. E. V. Hogan, Halifax; Dr. G. W. T. Farrish, Yarmouth; Dr. M. T. Sullivan, Glace Bay.”

This Committee has been actively working under the chairmanship of Dr. E. V. Hogan, and arrangements are now completed for what will be a very pleasant function. Seldom is a professional man after 50 years of service permitted to know that his confreres and his patients and friends love and respect him without an equivocating thought or reservation, altho nothing can be said or done at the proposed banquet in honor of Dr. Stewart to give adequate expression of our admiration of his life of truly christian service in lessening the physical ills which frail human bodies acquire, inherit or develop.

At the Halifax Hotel, on Thursday evening at 8 o'clock, October 6th, a banquet will be tendered to Dr. Stewart by those who have interested themselves in this Jubilee recognition. Dr. E. V. Hogan will preside, Dr. M. T. Sullivan will read the Address, while Dr. G. W. T. Farish will make the presentation. It is expected that there will be a large delegation present from Cape Breton, Pictou County and Yarmouth. The Medical Society of Nova Scotia is under a very considerable debt to this Committee for the valuable work in arranging for this function. Thanks are also due Dr. W. L. Muir, who acted as the Secretary-Treasurer for the Committee. We feel assured that every medical man invited to this Banquet will be present if possible.

Aberdonian Closeness

Closeness is better than meanness and the Scotch may be close but they cannot be mean.

A stranger entered a compartment of a train with three other occupants. He claimed to be able to read from the face and actions the nationality of the person observed. One of the travellers said: "Where do I come from?" the answer came,— "I think you come from San Diego, Cal." "By Jove. You are right. That is where I live." The second said, "Where do I come from?" "You look like a Canadian and likely came from Ontario, somewhere near Hamilton or Toronto." "Well this is remarkable. I come from Oakville exactly between the two places." The third man, sickly looking in a weak voice, said,— "Where do you think I come from?" The stranger looked hard at him, appeared to be a bit puzzled, scratched his head and looked him all over again. Finally he said,— "You stump me a bit, but I will make a guess, you come from Aberdeen, Scotland." "No, H-No, you are wrong this time. I have been in the hospital for the last six weeks. That is what makes me look so D— mean."

All of which reminds the writer of an incident that occurred many years ago. I was born in a house directly across from the Jail on the street later known as West Prince Street, Truro. In the fifties and sixties of the last century there were a number of eccentric or simple persons wandering around the country-side. Oftentimes, however, they were gifted with a ready tongue and wit, very observing and of keen intellect. One Jock M. was specially noted for a similar trait as noted above. In England from dialect and manner one can often give a persons's proper domain. Now in Nova Scotia this can even yet be noted in a number of families, strong, virile types that perpetuated their special characteristics readily. It was frequently Jock's custom to call out a good morning Miss A. or Mr. B. as the case might be. He so often gave the family name correctly that it became the custom to test him out from time to time. Generally in these tests he came out on top, or his nimble wit saved him. One day George J. D.—called to him that he was one man he could not call by name. Jock admitted that he failed to recognize him, but, to ease up his failure, he suggested he could tell where he came from. As G. J. D. was a stranger to Truro he felt safe in accepting, whereupon Jock said, "You came from Pictou." "How did you know" came the inquiry, because he did come from the Blue Mountain. Quick as a flash came the reply,— "Oh, I got a whuff of the oatmeal as you came down around the corner." That's all very well for sixty years ago, perhaps.

S. L. W.

Post Graduate Study

The Dalhousie Refresher Course 1927.

SOME question arose in the summer as to the desirability of holding a post graduate series of medical lectures this year in view of the very many opportunities our profession has had to hear teachers from other Provinces during the past two years. That the recent course was most successful is shown both by the number in attendance and their unqualified approval of the lectures. The personal element enters largely into the amount of profits to be obtained by this Refresher Course. Every year the visitors have been uniformly striking and pleasing in person and manner and their teaching authoritative. To this 1927 was no exception. At this point it would not be amiss to compliment our own Society on the good work, especially in the clinics, carried on by practitioners of Halifax and members of the Hospital and College staffs.

Both for the purpose of refreshing the minds of those present and for the information of those unable to attend a short resume of the work is given herewith.

Monday—Sept. 5th, 1927.

Morning Clinic. Dr. W. Alan Curry. Case of Haemorrhoids with such profound anaemia that two transfusions were required before operation could be attempted. Caudal anaesthesia carried out by Dr. Mack. Augmented by N20 ligating operation performed.

Second Clinic. At Children's Hospital. Dr. J. V. Graham, presented a case of congenital dislocation of hip with X-rays of condition before, during and after treatment, which was carried out in the home. Emphasis was placed on the fact that, with the exception of the X-ray control of position, the practitioner may treat these cases with complete success providing they are attempted under the age of four years.

A second case of tuberculous glands of the neck was shown as a complete cure after the aspiration and injection treatment.

Third. Dr. M. T. Carney discussed in general the clinical aspect of the spinal cord and its lesions presenting finally a case of paralysis of two years duration—of which more would be heard.

About twenty doctors were present on this the opening morning.

Tuesday—Sept. 6th.

Dr. H. K. McDonald discussed Thorocoplasty and its indications.

Dr. K. A. McKenzie presented five heart cases,—One of auricular flutter with pulse 160 and treated with digitalis. Another of syphilitic aortitis and three with mitral lesions.

Dr. F. G. Mack took up the subject of neuro syphilis and referred to the colloidal gold test cell count and kahn test as well as intra thecal medication in cases of paresis and tabes.

Wednesday—Sept. 7th A. M.

Dr. P. Weatherbee presented a number of surgical cases at the Children's Hospital which included a wide range of cases ordinarily encountered.

At the Tuberculosis Hospital Dr. T. M. Sieniewicz showed a series of X-ray plates of chests and demonstrated by them how the use of iodized oil was of great diagnostic value in addition to being an aid to treatment of these conditions. A practical demonstration of artificial pneumothorax was then given.

Dr. R. E. Powell of Montreal then gave a lecture on the treatment of Gonorrhoea and Lues emphasizing the importance of sufficient high standard of "test of Cure."

Thursday—Sept. 8th A. M.

Surgical Clinic. Given by Dr. G. H. Murphy, on infections of the gaul Bladder.

Dr. P. A. McDonald dealt with the general subject of post partum care. The reposition of the uterus, careful asepsis and good rest being emphasized.

Dr. E. K. McLellan, spoke of the after coming head in breach presentations stressing that more damage is done by hurrying than in any other way.

Prof. H. B. Atlee presented a plea for a more normal physiological state in the mother, judicious exercise, sunlight for hardening breasts and the upright position in bed as soon as possible. The use of pituitrin raised a lively discussion in which nearly all present participated. For the remainder of the morning Dr. S. R. Johnston explained the way in which radium is used and outlined conditions that are benefited by deep X-ray therapy, X-ray, quartz lamp and radium.

Friday—A. M.

Dr. H. B. Atlee presented some cases of carcinoma of cervix treated by radium. These are not cured but considerable relief is given over a period of time. Early cases to be operated upon. In chronic salpingitis a total hysterectomy is urged.

Dr. W. L. Muir discussed anaesthesia from the point of view of what can be done in the home and showed a simple apparatus for use in face work.

Dr. A. W. Schwartz presented a case of gonorrhoeal conjunctivitis treated with 2-3 cc. sterile milk boiled exactly four minutes; 10 cc. every day for two days; skip one day; two more doses—no reaction but cure.

Dr. R. E. Mathers demonstrated the needling operation in two cases of cataract.

Monday Afternoon—Sept. 5th.

Dr. L. J. Austin of Queen's University, Kingston, Ontario, provided the surgical lectures in the afternoon of the first three days. These were given in a style so entertaining, and generously interspersed with dry humor, that the lecturer will not soon be forgotten, nor the subjects which he considered.

His first lecture dealt with injuries of the head and the general subjects of concussion and compression, noting the importance of careful observation of pulse and blood pressure and degree of confusion as indication for operation. He noted the usefulness of repeated lumbar puncture and finally reminded us that always the after-effects of decompression operations depending upon occupation, brain workers more than laborers, and those exposed to heat especially, require a long period of convalescence.

Tuesday—

Diseases of the Rectum—Their effect on mankind. *Fistula in ano* and its relation to the court of Louis 14th. Where external opening is anterior to the inner ischial line the internal opening may usually be found in a straight line to centre with the fistula straight like the spoke of a wheel. When the external opening is posterior, irregular tracts may result, with internal opening usually in mid line. In the treatment of these latter direct straight incision tends to cut the sphincter obliquely and is not conducive to healing. All cases of fistula should be carefully examined to exclude T. B., Carcinoma, or fibrous stricture. This latter, in the speaker's opinion, is more likely to be gonorrheal in origin than luetic.

Piles. The ligature operation only is useful. May inject through mucus membrane 10% carbolic into pile itself, gtt. 2.

Carcinoma of Rectum has the ordinary symptoms of haemorrhage, pain and alternating constipation and diarrhoeas, but also may show signs of bladder irritation from carcinoma on anterior wall. There is also sciatica, ascites, liver enlargement and metastasis of breast to be considered.

Wednesday—*Fractures of the Elbow. In Children.*

A most illuminating demonstration of the treatment of these conditions. He suggests having a series of X-ray pictures of the various age ranges as an aid to diagnosis of fracture. Immobilization for about two weeks was advised and emphasis placed on exercise and a demonstration given of various methods in which the child unconsciously aids the extension of the joint. A note of warning was sounded in that the public attitude to fractures does not include an understanding of the difficulty of these cases.

Dr. R. D. Rudolf. Gave the corresponding medical lectures of the first three afternoons and his subject was the Cardio Vascular system.

Blood pressure, being such a variously discussed subject among the laity, was first considered.

Normal blood pressure range is when $\frac{1}{2}$ systolic plus 10 per cent equals the diastolic. When there is increased tension it is spoken of as systolic high when diastolic is below 90, and diastolic high when diastolic is over 100.

Three chief causes are nervous, toxic and organic, the last two more likely to be diastolic highs.

Treatment includes moderating life, avoiding worry. *Rest*—exaggerated rest with mid-day period of lying down and gentle exercise later. *Diet*—decrease carbohydrates, plenty of water lowers blood pressure. No alcohol and tobacco in moderation. Potassium iodide may be given.

The above applies to cases *with symptoms*—those without symptoms are liable to become more worried even, from the awareness of increased pressure, and white lies are justified. The chief symptoms are headache and temporary aphasia.

Erythrol tetranitrate grs. one-half useful in angina, as is sodium sulphocyanate and even venesection. *Hypotension* in absence of T. B. anaemia etc., means nothing in itself but in acute cases and surgical emergencies, Ephedrin 50 mgm. intravenously is used, as in lumbar anaesthesia. It is similar in action to adrenalin but may be given by mouth as well. Its effect is more prolonged and there is no reaction.

Tuesday and Wednesday—

Cardiac Failure.

The general symptoms of this condition were discussed and the fact that urine scanty and rising sp. gr. was taken as good sign. Any irregularity, disappearing on exercise, is of no importance except in partial heart block.

In treatment, especially with gastric symptoms, rest and diet are most important. 32 ounces of milk alone for twenty-four hours and glucose (1 lb.—1 qt., boiling water 2 lemons boil 5 minutes,) 1000 calories per 24 hours.

Digitalis—stop on appearance of nausea and vomiting or on appearance of double beats. Theocine grs. v. every 8 hours to 40 grs. for oedema. Ammonium chloride, drachms three daily and novasural 1—2cc. i.m. or iv. also Strophanthin in acute cases, with extreme care if previously digitalized, $\frac{1}{25}$ gr. doses best.

Digitalis by rectum excellent in tympanites.

Thursday P. M.—

Dr. Powell took up the subject of *Stricture* and showed the various forms of catheters and filiforms in use in relieving this condition. The corkscrew-tip filiform manufactured by Chas. Bard of New York was presented as being the most useful form.

Once the stricture is passed it is followed by elastic dilators and a catheter is tied in place for 24 hours. Chancroids are treated as such, after three negative searches for spirochetes by cauterization with Zinc Chloride and dressed with mercurochrome. Granuloma inguinale seemed to be less infrequent and was treated with intravenous tartar emetic.

Friday—

Surgical conditions of Kidney and Bladder. With the assistance of X-ray plates the various conditions were considered and many diagnostic points brought out. The possibility of confusion between gall stones and right kidney stones was noted and sciatic pain may be an early sign of carcinoma of prostate.

Thursday P. M.—

Dr. B.M. Randolph of George Washington University, Washington, D. C., after making some very complimentary remarks concerning the organization of the clinical work at Dalhousie, read a paper on "The Clinical Manifestations of Pulmonary Disease." Covering this subject in a general, yet thorough manner, he concluded with a plea for more autopsies as the only method of really understanding the pathology of underlying conditions.

Friday P. M.—

Dr. Ralph P. Smith, new Dalhousie Professor of Pathology, demonstrated Gregorson's test for occult blood, a test extremely rapid and accurate and requiring no preliminary diet of patient. Two small powders each containing 0.025 gm Benzidine and 0.02 gm. Barium peroxide are dissolved in 5 cc. 50% glacial acetic acid. A small amount of faeces is smeared on the slide and one drop of this freshly prepared solution is added and stirred. A bright blue-green color appearing at once is a strong positive. Any color change after one minute is disregarded. Eliminate possibility of blood from haemorrhoids, and marked caries of teeth; ordinary diet may be given, only enormous quantities of lean beef will give weak positive. The especial value of the test is in early cancer of the stomach when this sign will be found constantly present 3-6 months before X-ray or other signs.

He concluded his demonstration by explaining how specimens should be sent in to the laboratory to assure the best results from the standard tests performed there.

The registration was most satisfactory, no less than 46 doctors from points outside of Halifax and Dartmouth being in attendance, the total registration being 96. A mid-day luncheon, given by the Governors of Dalhousie to the visitors, with several smaller functions made the week very pleasant as well as profitable. By resolution approval was given to the proposal to continue the Course yearly. The registration was as follows:—

POST GRADUATE REGISTRATION.

Lecturers.

- Dr. L. J. Austin, Kingston, Ontario. Dr. R. E. Powell, Montreal, Quebec.
 Dr. R. D. Rudolf, Toronto, Ontario. Dr. B. M. Randolph, Washington, D. C.

Attendants.

- Dr. A. J. Walker, Venezuela Gulf Hospital. Dr. J. E. Grant, Lockeport, N. S.
 Dr. Florence J. Murray, Hanheung, Korea. Dr. W. N. Cochrane, Mahone, N. S.
 Dr. T. J. Cochrane, Port Elgin, N. B. Dr. R. E. Archibald, Melrose, N. S.
 Dr. G. W. Fleming, Petitcodiac, N. B. Dr. D. R. MacDonald, Murray, N. S.
 Dr. C. I. Gass, Sackville, N. B. Dr. A. E. Blackett, New Glasgow, N. S.
 Dr. E. Rommell, Havelock, N. B. Dr. J. W. Reid, Jr. Newport, N. S.
 Dr. H. D. Johnson, Charlottetown, P. E. I. Dr. F. T. MacLeod, New Waterford, N. S.
 Dr. J. W. MacIntosh, Georgetown, P. E. I. Dr. J. R. Gilroy, Oxford, N. S.
 Dr. C. B. Fox, St. John's, Newfoundland. Dr. H. L. Scammell, Pictou, N. S.
 Dr. A. A. Dechman, Bridgetown, N. S. Dr. D. F. McInnis, Shubenacadie, N. S.
 Dr. S. Adlington, Bedford, N. S. Dr. Z. Hawkins, South Ohio, N. S.
 Dr. E. T. Granville, Bedford, N. S. Dr. H. B. Havey, Stewiacke, N. S.
 Dr. A. B. Campbell, Bear River, N. S. Dr. Dan. Murray, Tatamagouche, N. S.
 Dr. K. A. Baird, Canning, N. S. Dr. R. M. Benvie, Stellarton, N. S.
 Dr. F. F. Chute, Canning, N. S. Dr. M. G. MacLeod, Whycomagh, N. S.
 Dr. D. W. N. Zwicker, Chester, N. S. Dr. A. R. Reid, Windsor, N. S.
 Dr. John McKiggin, Dominion No. 6, N. S. Dr. J. W. Reid, Windsor, N. S.
 Dr. T. R. Johnson, Great Village, N. S. Dr. F. R. Shankel, Windsor, N. S.
 Dr. J. E. Pollard, Hantsport, N. S. Dr. C. G. Campbell, West Branch, River
 Dr. L. R. Morse, Lawrencetown, N. S. John, N. S.

Dr. M. R. Elliott, Wolfville, N. S.

- Dr. E. I. Glenister, Dartmouth, N. S. Dr. Mabel Patterson, Dartmouth, N. S.
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 Dr. F. F. Malcolm, Dartmouth, N. S. Dr. M. A. B. Smith, Dartmouth, N. S.

- Dr. H. B. Atlee, Halifax, N. S. Dr. E. K. MacLellan, Halifax, N. S.
 Dr. J. C. Acker, Halifax, N. S. Dr. J. McPherson, Halifax, N. S.
 Dr. W. J. Barton, Halifax, N. S. Dr. F. G. Mack, Halifax, N. S.
 Dr. J. G. D. Campbell, Halifax, N. S. Dr. A. I. Mader, Halifax, N. S.
 Dr. M. J. Carney, Halifax, N. S. Dr. R. E. Mathers, Halifax, N. S.
 Dr. J. L. Churchill, Halifax, N. S. Dr. A. M. Marshall, Halifax, N. S.
 Dr. J. R. Corston, Halifax, N. S. Dr. M. D. Morrison, Halifax, N. S.
 Dr. A. R. Cunningham, Halifax, N. S. Dr. A. Morton, Halifax, N. S.
 Dr. W. A. Curry, Halifax, N. S. Dr. C. S. Morton, Halifax, N. S.
 Dr. C. S. Elliott, Halifax, N. S. Dr. S. A. Morton, Halifax, N. S.
 Dr. W. D. Forrest, Halifax, N. S. Dr. G. H. Murphy, Halifax, N. S.
 Dr. W. E. Fultz, Halifax, N. S. Dr. W. L. Muir, Halifax, N. S.
 Dr. N. H. Gosse, Halifax, N. S. Dr. J. M. Murdoch, Halifax, N. S.
 Dr. J. V. Graham, Halifax, N. S. Dr. R. F. O'Brien, Halifax, N. S.
 Dr. W. H. Hattie, Halifax, N. S. Dr. John Rankin, Halifax, N. S.
 Dr. P. Hawkins, Halifax, N. S. Dr. Grace Rice, Halifax, N. S.
 Dr. E. V. Hogan, Halifax, N. S. Dr. H. W. Schwartz, Halifax, N. S.
 Dr. W. J. Keating, Halifax, N. S. Dr. A. H. Shaffner, Halifax, N. S.
 Dr. S. K. Johnston, Halifax, N. S. Dr. T. M. Sieniewicz, Halifax, N. S.
 Dr. F. R. Little, Halifax, N. S. Dr. J. W. Sutherland, Halifax, N. S.
 Dr. H. K. MacDonald, Halifax, N. S. Dr. S. L. Walker, Halifax, N. S.
 Dr. P. A. MacDonald, Halifax, N. S. Dr. P. Weatherve, Halifax, N. S.
 Dr. K. A. MacKenzie, Halifax, N. S. Dr. G. B. Wiswell, Halifax, N. S.
 Dr. P. D. McLaren, Halifax, N. S. *Dr. Catherine L. Whittier, Halifax, N. S.

Dr. F. V. Woodbury, Halifax, N. S.

*Medical Missionary designated to India.

Society Meetings

PICTOU COUNTY MEDICAL SOCIETY.

The Annual Meeting of the Pictou County Medical Society was held in Pictou in the Town Hall Wednesday, September 14, 1927, Dr. Clarence Miller, President, in the chair. After the usual business proceedings the election of officers took place. The following officers were elected for the year 1927-28.

President.....	DR. M. R. YOUNG, Pictou.
Vice-President.....	DR. H. H. MCKAY, New Glasgow.
Secretary-Treasurer.....	DR. JOHN BELL, New Glasgow.

Members nominated to the Provincial Executive of the Nova Scotia Medical Society:—

DR. G. A. DUNN, Pictou.
DR. S. G. MCKENZIE, Westville.

A resolution was passed by the Society expressing its very hearty appreciation of the magnificent gift of \$10,000.00 towards the new Pictou Hospital from Mr. Daniel Sutherland of Pictou.

Notice was given for proposed change of date for the annual meeting, to be the 1st Wednesday in June, instead of July as at present. Dr. H. L. Scammel of Pictou was enrolled as a new member.

The specialist is learning more and more about less and less and the general practitioner is learning less and less about more and more.—
Dr. William A. White.

Saturday Nights.—"They certainly have crowds in Paris on Saturday nights, don't they! remarked Lindbergh as his car entered the Place de la Concorde, Paris."

If it is written it must be so! Russ Westover says, "Tillie was always so sure of herself she even writes her diary three days ahead."

Doctor:—"How are your broken ribs getting on?"
Patient:—"Fine Doctor, but I've had a stitch in my side all day."
Doctor:—"Excellent, that shows the bones are knitting."

Notes and Comments

CHOLERA Infantum is more largely prevalent in some of the mining districts of Cape Breton this year than for some time, according to *The Sydney Post* and *The Glace Bay Gazette*. Like Typhoid this should not be. While these several towns are wise in pressing now for better sanitary conditions the great danger is in the home and the home feeding. There is only one method to overcome this annual danger and that is a fully developed health nursing service. The present health nursing service carried on by St. Joseph's Hospital should be multiplied several times, especially during the summer months. While clinics are good these nurses must get into the homes. Now is the time for the doctors in these mining towns to call for the establishment of such a service.

The Glace Bay Gazette carries an advertisement of a "Chiropractor and Nerve Specialist," of whom there are very few in Nova Scotia as far as one can tell from the local newspapers. With so many doctors in this section of Cape Breton it should be possible to obtain evidence of his contravening the Medical Act. The Provincial Medical Board will gladly prosecute these heartless money grabbers if only evidence is secured.

Something over 56 years ago the Sunday morning sermon of a Presbyterian Church in a small village in Scotland was interrupted by a frantic Irishman calling for Dr. Hope and the district Nurse, who were in the congregation. That baby has been for many years a resident of New Waterford, N. S., and a reporter for local papers. His father was Irish, but his mother was Scotch, as recently in the *Post* on the occasion of a birthday he thus toasts himself:—"Ladies and Gentlemen, drink to the Waterford Scribe,—Here's tae ye, an' I'll drink it masel."

Beryl—Should a man propose to a girl on his knees?

Barbara—Either that or she should get off.

"Dr." McCoy: "I do not know a disease where fasting is contra-indicated. It can be used in some form in the treatment of every acute and chronic disorder."

Dr. Hill: "Tuberculosis, neurasthenia, the anaemias, every prolonged or severe disease, requires nourishment, in excess of the usual demand; to say nothing of rickets, scurvy, beri-beri, pellagra, diabetes, which each in their own way require special forms of nourishment. Children with whooping cough sometimes die of starvation brought on by the vomiting due to the disease which should be cured by that very starvation."

Educational Number. The August 20th, 1927, issue of *The Journal* of the American Medical Association is the usual annual educational number. Nearly all the leading articles, editorials, selected articles, notes and comments, have some bearing on medical education. Then a statistical statement is prepared compiling educational data for the United States at the present time. Even the advertisements largely follow the same lead. To those of our readers concerned at all with medical education this number of the *Journal* will furnish a large amount of reliable information. Not the least interesting is the section giving particulars of medical colleges, large and small, without glossing over detrimental facts.

Fergus Byrne writes us another incident regarding the Scotchman from Aberdeen. Suffering from a severe indigestion for a considerable period he finally became so ill that despite his disinclination to spend money he was compelled to consult a local physician of good repute. This physician's card stated that \$5.00 was the charge for an initial visit. \$1.00 being the charge for subsequent visits. This appealed to Sandy, and his introductory remarks to the doctor, were!—"Well, Doctor, the medicine you ga'ed me last week didna' dae me muckle guid." "Why," said the doctor, "did I prescribe for you last week? I don't remember you." "Oh, yes, doctor, ye prescribed for me all right. Sandy Thompson's my name." The doctor, also a Scot, looked over his ledger and said, "Oh, yes, I remember now. Let's re-examine you," and he did. At the end of his examination he said. "Sandy, ye'll continue with the medicine you got last week and the fees for last week which you forgot to pay and for this will be six dollars exactly which ye pay now. That'll do, thanks." Poor Sandy!

The 1927 Dalhousie Refresher Course was given considerable publicity in the newspapers of the Province prior to its holding. Further publicity might well have been given upon its completion even as a matter of news. If the initial publicity was solely for the purpose of catching the eye of the doctor, (and the doctor's clientele), it would be still better business to tell the public what those in attendance received and those, not attending, lost. Courses of this kind and medical meetings generally have a two fold result, benefitting the doctor, increasing his knowledge and his inspiration for service and the community gains by having increased confidence in their family physician.

Cheerfulness is as natural to the heart of man in strong health as color to his cheek; and whenever there is habitual gloom there must be either bad air, unwholesome food, improperly severe labor, or erring habits of life.—Ruskin.

With Our Advertisers

Advertising in the Bulletin is a personal letter to every Doctor.

THE contribution of the Manufacturing Pharmacists to the treatment of Hay Fever would have been noted in the last *Bulletin* in the Advertisement of Charles E. Frosst & Co., had the forms not gone to press earlier than usual. As the *Bulletin* now is published on or before the 5th of each month, we would be glad to have copy of changes in Advertisements in hand by the 20th of the previous month. Hay Fever appears to be a condition in which relief of symptoms is equivalent to a temporary cure and if the Frosst Tablet of Acetophen, Codeine and Atropine will relieve the spasm and reduce the secretion, it will be greatly appreciated by the chronic sufferer of this distressing malady.

Typhoid Fever should not occur in Nova Scotia unless imported, even then no subsequent cases should occur. Yet eternal vigilance is the price of safety. Having taken all the precautions as to origin and spread, we must not overlook the aid given by vaccines. It might be good routine for vacationists, or those attending annual conventions in July, August and September, to protect themselves by vaccination. This suggestion comes to the writer after reading Parke, Davis & Company's circular entitled "Typhoid and Para-Typhoid Vaccines."

Attention has been repeatedly directed by the Provincial Department of Health, as well as by the Public Health Committee of the Medical Society of Nova Scotia, to the need of some suitable residence or Hospital for neurasthenics and drug habitues. The Homewood Sanitarium at Guelph, Ontario, specializes in these cases and will be glad to furnish the enquirer with rates and requirements for admission.

While the term phlogistic and the word phlogiston are seldom noted in Chemistry to-day, a new word, "antiphlogistin", or "antiphlogistic" is found in medical and other lexicons. If this preparation has not come to stay it is, at least, going stronger every day.

Why does the BULLETIN carry two or more advertisements of Investment or Trust Companies. Because if a Doctor is going to have *any* money to bring up his family, he must invest his *scanty* savings or occasional windfalls at the *first safe moment*.

Lister's Diabetic Flour has been brought to our attention each month for some time. In the old days we can recall our troubles with food for our diabetics. Even to-day, with a greater variety of food, with Insulin, etc., we must still depend largely upon special diets for these cases. Lister's Prepared Casein Dietetic Flour is now manufactured in Canada and sold at the same price as in the United States.

This firm also reminds us that Lister's Flour is the standard starch and sugar-free flour used in Diabetic diet; it is strictly starch and sugar-free, self rising and easily made into a variety of palatable and attractive foods in the home, from recipes furnished. The preparation is accepted by the Council of the American Medical Association and has the largest sale of anything of its kind in the world. The firm also claims that this Flour is advertised only through the medical profession. Please read the changed adv. in this issue.

A very excellent article entitled "Nervous Breakdown" will appear in the November or December issue of the *Bulletin*. This deals with a phase of medical practice that has not been many times dealt with in our pages. For this communication we are indebted to A. L. McKinnon, M. D., (Tor.), Physician to the Homewood Sanitarium, Guelph, Ont. A careful reading of the article will do much to enable us to properly classify the many types of nervous and mental diseases found in general practice.

OBITUARY

THE death occurred in Arlington, Mass. on September 6th, 1927, of Dr. John D. McDonald. He was a graduate of St. F. X. Hospital, Antigonish, and graduated in medicine from an American college some twenty years ago. He was early in his career appointed Superintendent of the State Hospital at Danvers, Mass. He held this position until one year ago when he suffered a stroke of paralysis.

Dr. McDonald was born in Cape Breton and was a son of the late Mr. and Mrs. Angus McDonald, in recent years, of Truro, N. S. One brother, Ronald McDonald, Chief station mail clerk at Truro still resides at the Truro home. Another brother was killed in the great war and the third accidentally killed in the United States some years ago.

Much regret was expressed in Halifax, Wolfville, and Oxford, over the death in August of this year of Miss Isabel Gilroy, aged 22 years, instantly killed as the result of an automobile accident in Vancouver, B. C. Following a period of study at Acadia University, Miss Gilroy graduated from the Vancouver Hospital Nurses' Training School, and has been doing general nursing for the past year. She is survived by her parents Mr. and Mrs. Arthur Gilroy formerly of Halifax. Dr. J. R. Gilroy of Oxford, N. S., is an uncle of the deceased.

On August 10th, 1927, Mrs. Charles Smith, formerly of Cloverville, Antigonish County, died at Roslingdale, Mass. Dr. W. F. MacKinnon, of Antigonish, is a nephew of the deceased. The funeral took place from Saint Ninnian's Cathedral, August 12th, 1927.

The death is noted in Moncton, N. B., on September 12th, 1927, of Dr. Gordon C. MacLean, Travelling Tuberculosis Diagnostician for the New Brunswick Department of Public Health. He belonged to Collingwood, Ontario.

In the passing of John Ross Chipman at his home, Chipman Corner, King's Co., August 23rd, 1927, a figure familiar to at least three generations disappeared from the local social life in which he was a recognized leader. He died where he was born ninety-two years ago, and for nearly three quarters of a century was prominent in every form of community activity. He was a brother of the late Dr. Henry Chipman, a very highly respected physician of Grand Pre for many years. Another brother was Dr. Reginald W. Chipman of Charleston, Mass. His wife, who was a daughter of the late Richard Starr of Starr's Point, predeceased him some three years. Four children survive him, one of whom is Dr. Leverett Chipman, of Saint John, N. B.

Locals and Personals

DR. A. Calder of Glace Bay, with Mrs. Calder and family, spent the last two weeks in August in a motor trip over the province.

Dr. Anna Wallace, physician to the Walter Fernald School at Waverley, Mass., spent the month of August at her former home in West Gore, Hants County. Another member of this talented family lectured in Halifax last year on the Problem of the Feeble-Minded.

"Say, but that fellow over there looks like you!"
"Sure he does, so he should, he's my sister."

Dr. W. F. Read of Digby, is leaving Nova Scotia and removing to Colgate, New York. Dr. W. R. Dickie of Barton has purchased his property and will remove to the town. Dr. Read has been appointed medical adviser to Colgate University and will enter upon his duties about October 1st., 1927. Doctor and Mrs. Read held a very secure place in the community life of Digby and their absence from the town and province is greatly to be regretted. We expect, of course, that the Doctor will spend his summers in the Province and we suggest that he attend every annual meeting of the Medical Society of Nova Scotia, in order to keep in touch with his many friends in the profession. We note that Dr. W. C. Harris of Yarmouth has removed to Digby, and Dr. J. A. Milne has transferred from Freeport to Yarmouth.

Dr. D. J. McDonald of Halifax, spent his August vacation in Cape Breton and for a time was the guest of Dr. J. K. McLeod of Sydney.

Dr. H. K. McDonald of Halifax and Dr. G. W. T. Farish of Yarmouth figured as representatives of the profession at the 1927 Maritime Golf meet at Moncton; and they made a good showing. But where, O where, were Doctors Sutherland, Read, Patton, Murphy and a score of others?

To Dr. and Mrs. C. R. Cameron of Petite Riviere, at Grace Maternity Hospital, Halifax, August 6th., 1927, a daughter. Congratulations.

Dr. T. A. Lebbetter of Yarmouth, with Mrs. Lebbetter and the three children, spent two weeks in August at his former home visiting his parents, Mr. and Mrs. M. Lebbetter of North Sydney.

The address before the New Glasgow Rotary Club on Aug. 18th., was given by Doctor "Tom" McDonald, formerly of New Glasgow, but for some years in practice in Somerville, Mass. He spoke in a reminiscent manner of the pranks and pleasures of his boyhood days in the old home town. Should the future develop big things for Nova Scotia he thought 90 per cent of those now away would be glad to return.

Dr. John F. Brown, Dalhousie 1924, in practice at Grand Falls, Newfoundland, spent his vacation in August with his parents, Mr. and Mrs. W. E. G. Brown of Trenton.

Dr. and Mrs. V. H. T. Parker of Stellarton, with Mrs. Parker's sister, Miss Barry, left August 25th for a two weeks' trip to Canadian and United States cities. Miss Barry is on her return way to Regina.

Twenty years ago the officers and committees of the Cape Breton Medical Society included the following:—Doctors E. H. Kendall, James Bruce, W. J. Egan, J. K. McLeod, T. H. Smith, R. A. H. MacKeen, J. J. Roy, E. J. Johnstone, D. McDonald, J. W. McLean, J. A. McLellan, W. McK. McLeod and S. J. McLennan. If we are not mistaken, excepting Dr. MacKeen, all are still with us, altho Dr. Kendall has retired and is living near Windsor and Dr. W. McK. McLeod has added preaching to his medical practice.

The engagement of Dr. William J. McNally, Dalhousie 1922, of Montreal to Miss Harriet Elizabeth, daughter of Mr. and Mrs. J. J. Purcell, of Antigonish, has been announced. The wedding is to take place shortly.

To Dr. and Mrs. T. W. McLean, Scotsburn, in August a daughter. Congratulations.

Early in September, Dr. and Mrs. G. A. McIntosh moved from their summer home at Bedford into the city and are located for the winter on College St., Halifax.

Dr. A. G. Nicholls, lately Provincial Pathologist, with his family has removed to Montreal, where Dr. Nicholls will practice. Their departure means a distinct loss in social, church and medical circles in Halifax. Dr. Nicholls was a valued member of the Medical Society of Nova Scotia and was always available for the business and scientific activities of the Society. The BULLETIN wishes him continued success in his new home.

Dr. J. W. T. Patton of Truro, was the winner, Aug. 31st., of the Henderson Cup, an annual competition of the local Golf Club.

Dr. J. L. Cock, Coburg Road, Halifax has been appointed to the medical staff of the Department of Immigration in the Colonization Branch. It is regretted that the appointment requires him to reside in England, and, if necessary, in some of the other European Countries. Doctor and Mrs. Cock will leave for England early in October. They anticipate their stay there with much pleasure in which many will join them in good wishes.

Members of the profession will regret to learn that Dr. S. H. Thibeault of Little Brook, Digby County, N. S., has found it necessary to enter the N. S. Sanatorium for a period of treatment. Dr. Thibeault was a Dalhousie graduate of 1911. The BULLETIN wishes for him a speedy and full recovery.

Dr. J. W. McIntosh, Dalhousie 1922, of Georgetown, P. E. I., with Mrs. McIntosh and their young son, spent the *refresher* week in Halifax. While here they were guests of the Doctor's uncle, Professor D. S. McIntosh, Henry St., City.

Wedding:—The item in the September BULLETIN of the return to Nova Scotia for the summer of Dr. Margaret Chase, Dalhousie University 1923, might have been worded differently had the reporter known that social functions in her honor were the order of the days and nights in August and early September in the vicinity of Canard, King's Co., N. S. The wedding of Dr. Margaret Chase to Prof. Ross W. Collins of Syracuse University, formerly of Port Williams, N. S. took place at the United Church, Upper Canard, Spetember 3rd., 1927. The bridesmaid was Dr. Lalia B. Chase, Dalhousie 1924, now in practice in Regina, a sister of the bride. The groomsman was Dr. Wylie Collins of Boston, brother of the groom. The church was wonderfully decorated with flowers and green, and a reception was largely attended. After a motor trip through Nova Scotia they will further motor to Syracuse, where they will reside. The teaching staff and recent graduates of Dalhousie will especially extend best wishes to this latest defection from our professional circle.

Mrs. J. W. Gallwey, formerly of Moser River, N. S., after a visit to relatives in Winnipeg, sailed September 10th. for St. Vincent, B. W. I., where her husband, Dr. J. W. Gallwey, who practised three years in Moser River, is now located.

Social and medical circles are gladly welcoming back to Halifax members of the staff of Dalhousie. Among these we note Dr. and Mrs. John Cameron, Dr. and Mrs. Gibbs, and Professor and Mrs. Babkin. The first named went first to Scotland, strange as it may appear, and Dr. and Mrs. Gibbs to their former English homes. The last named spent the summer most pleasantly at St. Andrews, N. B.

Wedding:—At 8 o'clock, Wednesday morning, September 6th., 1927, Dr. John McKiggan of Dominion No. 6 was married in the J. Wesley Smith Memorial Church, Halifax, to Miss Belle Kinread King, daughter of the late Mr. and Mrs. Alfred J. King of Halifax. Dr. McKiggan graduated from Dalhousie in 1921, while his bride was a graduate Nurse of the Victoria General Hospital training school in 1922. The bridesmaid was Miss Bertha King, the bride's sister, while Dr. John Acker gave social and moral support to the groom. The bride was given a particularly kindly send-off by the graduate and training nurses of the Victoria General Hospital. After a motor honeymoon spent touring Nova Scotia they will reside in Dominion No. 6, a mining centre that suffered very greatly during and after the strike in 1925 but is now looking forward to an expected long period of prosperity. It is fully expected that Mrs. McKiggan will gladly abet her husband when it comes to whipping the waters of the lakes and rivers of Cape Breton.

Dr. J. W. Davis of Berwick, accompanied by Mrs. Davis and baby, Mary, left August 30th. for Kentucky, where Dr. Davis will be engaged in Public Health work for that State. Dr. Davis graduated from Dalhousie in 1924 and was well settled in Berwick where both he and Mrs. Davis were very popular. The best of wishes will follow them.

Dr. E. E. Bissett of Windsor, recently visited Gravenhurst Sanatorium to see his son who, we regret to learn, is a patient in that very excellent institution.

Dr. Mabel Patterson of the staff of the Nova Scotia Hospital, spent a few days of her recent vacation in Windsor meeting old friends she knew when vice-principal of the Academy there.

Dr. A. A. and Mrs. Dechman of Bridgetown, accompanied by Mrs. Burpee Burns, motored from Bridgetown to Sherbrooke early in September visiting at the Dr's old home for a week or more.

Dr. Arthur J. Walker, McGill 1924, after spending several weeks visiting his parents Dr. S. L. and Mrs. Walker, Halifax, returned to his hospital duties in Venezuela, the latter part of September. A report of the Dalhousie Refresher course, which the BULLETIN is glad to publish, is from Dr. Walker's pen. He reported the lectures and clinics as most interesting and of great value and the contribution of his report to the BULLETIN is much appreciated.

Four of the 1927 graduates of Acadia University sailed on September 21st for Liverpool and will enter upon the study of Medicine at Edinburgh:—C. H. Bentley, Middleton; A. J. Brady, Sherbrooke; B. R. Prosser, Yarmouth; R. B. Gullison, Clementsport.

MEDICAL SOCIETY OF NOVA SCOTIA

ANNUAL MEETING (ANNIVERSARY) JULY 5, 6, 7, 1928.
ANNAPOLIS ROYAL, N. S.

OFFICERS FOR 1927-1928.

President.....	Dr. L. R. Morse, Lawrencetown, N. S.
1st Vice-President.....	Dr. R. H. Sutherland, Pictou, N. S.
2nd Vice-President.....	Dr. H. K. McDonald, Halifax.
Secretary.....	Dr. S. L. Walker, Halifax.
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Dr. R. O. Bethune, Berwick.
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Eastern Counties Branch.

Dr. J. L. McIsaac, Antigonish.

Colchester-Hants Branch.

Dr. H. B. Havey, Stewiacke.
Dr. E. E. Bissett, Windsor.

Western Nova Scotia Branch.

Dr. C. K. Fuller, Yarmouth.
Dr. C. A. Webster, Yarmouth.

STANDING COMMITTEES.

Arrangements.

To be appointed by the President.

Cogswell Library Committee.

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Dr. Corston, Halifax.
Dr. Stewart, Halifax.
Dr. Weatherbe, Halifax.
Dr. C. S. Morton, Halifax.

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Dr. R. L. Blackadar, Port Maitland.
Dr. J. K. McLeod, Sydney.
Dr. W. N. Rehfuss, Bridgewater.
Dr. E. D. McLean, Truro.

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Dr. W. H. Hattie, Halifax.
Dr. G. H. Murphy, Halifax.
Dr. J. G. McDougall, Halifax.
Dr. M. T. Sullivan, Glace Bay.
Dr. J. J. Roy, Sydney.
Dr. T. A. Lebbetter, Yarmouth.

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Dr. G. H. Murphy, Halifax.
Dr. M. G. Burris, Dartmouth.
Dr. J. R. Corston, Halifax.

Cancer Committee.

Dr. John Stewart, Halifax.
Dr. E. V. Hogan, Halifax.
Dr. D. J. McKenzie, Halifax.

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Dr. S. L. Walker. }
Dr. Ross Millar, Amherst.
Dr. W. H. Cochran, Mahone.
Dr. E. V. Hogan, Halifax.
Dr. O. B. Keddy, Windsor.
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Narcotic Drugs— (Including Pharmacy).

Dr. E. E. Bissett, Windsor, to name his own Committee.

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Radio Broadcasting.

Dr. A. C. Jost, Halifax, to name his Committee.

Legislative Committee (Two members for the C. M. A. Committee).

Dr. W. H. Hattie and Dr. J. G. McDougall, both of Halifax.

Publicity.

Drs. Walker and Hattie of Halifax.

Solicitor.

J. McG. Stewart, Roy Building, Halifax.

V. O. N. Board of Governors.

Dr. C. S. Morton, Halifax.

Tuberculosis Commission.

Dr. L. R. Morse, Lawrencetown; Dr. K. A. McKenzie, Halifax.

Special Advisory Committee to Tuberculosis Commission.

Dr. A. McD. Morton, Halifax.

Dr. M. G. Burris, Dartmouth.

Dr. C. E. A. DeWitt, Wolfville.

MEDICAL SOCIETY OF NOVA SCOTIA**DIRECTORY AFFILIATED BRANCHES****CAPE BRETON**

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 Secretary-Treasurer Dr. Eric W. McDonald, Reserve.
 Executive:—Dr. D. A. McLeod, Sydney; Dr. E. J. Johnson, Sydney;
 Dr. John McDonald, Sydney.

Nominated to Provincial Executive.

Dr. D. R. McRae, Whitney Pier; Dr. J. K. McLeod, Sydney; Dr. M. T. Sullivan, Glace Bay.

Annual Meeting 2nd Thursday in May.

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 President Dr. J. J. McRitchie, Goldboro.
 1st Vice-President Dr. R. F. McDonald, Antigonish.
 2nd Vice-President Dr. M. E. McGarry, Margaree.
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 Dr. W. F. McKinnon. Dr. J. A. McDonald.
 Dr. D. M. Chisholm. Dr. J. S. Brean.

Nominated to Provincial Executive.

Dr. J. L. McIsaac, Antigonish.

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Executive

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 Dr. G. A. Dunn, Pictou.

Date of Annual Meeting—July 1928.

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MEDICAL SOCIETY OF NOVA SCOTIA

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Vice-President.....	Dr. J. B. Reid, Truro.
Secretary-Treasurer.....	Dr. H. V. Kent, Truro.

Executive

The officers and Dr. R. A. McLellan, Rawdon, Dr. D. S. McCurdy, Truro, and Dr. J. W. Reid, ex-M. P. P. of Windsor.

Nominated to the N. S. Executive.

Dr. H. B. Havey, Stewiacke and Dr. E. E. Bissett, Windsor.

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Vice-President.....	Dr. A. E. Mackintosh, Amherst.
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Nominated to Provincial Executive.

Dr. M. J. Wardrope, Springhill; Dr. J. A. Munro, Amherst.

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Vice-President.....	Dr. F. F. Chute, Canning.
" ".....	Dr. I. R. Sutherland, Annapolis Royal.
" ".....	Dr. W. R. Dickie, Barton.
Secretary-Treasurer.....	Dr. C. E. A. deWitt, Wolfville.

Nominated to the Executive of the Medical Society of Nova Scotia

Dr. R. O. Bethune, Berwick, Dr. L. R. Morse, Lawrencetown and Dr. E. DuVernet, Digby.

Date of Annual Meeting—May.

Semi-annual in October.

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Officers 1927-28

President.....	Dr. G. W. T. Farrish, Yarmouth
Vice-President for Digby.....	Dr. H. T. Pothier, Weymouth.
" " " Shel.....	Dr. L. P. Churchill, Lockeport.
" " " Yar.....	Dr. A. R. Melanson, Eel Brook.
Secretary-Treasurer.....	Dr. T. A. Lebbetter, Yarmouth.

Nominated to Executive of Medical Society of Nova Scotia

Doctors C. K. Fuller and C. A. Webster of Yarmouth.

LUNENBURG-QUEENS

Officers 1926-27

President.....	Dr. F. R. Davis, Bridgewater.
Vice-President.....	Dr. G. A. Barss, Rose Bay.
Secretary-Treasurer.....	Dr. C. A. Donkin, Bridgewater.

Executive

The above Officers and

Dr. W. N. Cochran, Mahone Bay and Dr. A. E. G. Forbes, Lunenburg.

Nominated to the Executive of the Medical Society of Nova Scotia

Dr. W. N. Rehfuss, Bridgewater and Dr. W. N. Cochran, Mahone Bay.