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Contents April, 1947

West River Medical Doctors

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Stellarton, N. S.

THE early settlers of Pictou County were largely Scots from the old land. They brought with them an ardent love of learning and education. When the school teacher reported a promising pupil no sacrifice was too great that he might be sent first to "The Academy" and later to "The University." The result was that a great many professional men were produced and in the 80's and 90's Pictou Academy became quite famous.

Choosing the West River Valley, I know of twenty-two doctors who came from this district. With rare exceptions these men were bred and born on the farm, and had their early training in the "Little Red School House," where there was only one teacher, who had to teach pupils from Grade I to Grade X or XI. Life on the farm in the early 80's was very primitive. The heating system was "the kitchen stove" and "the room stove." Water was carried from a well or spring. Lighting was by oil lamps or tallow candles. One was not troubled by telephone or radio. Travel was by horse and buggy on dirt roads in summer and by sleigh in winter. The scarcest commodity was money, the most abundant hard work. There was always plenty of good wholesome food and fresh air, which tended to produce "sound minds in healthy bodies."

At the source of the river at West River Station were born Drs. Frank and Alex Fraser. They were the sons of Colin Fraser, a merchant farmer and the leading citizen in that community. On the mother's side of the house, one uncle was a clergyman, one cousin a medical doctor. Frank was the older. He was born in 1867. From the country school he went to Pictou Academy, after which he taught school at "the Round School House" at Saltsprings. (The school house was really eight sided.) The salary was less than three hundred dollars exclusive of the government grant, but the work was hard. During the winter months the young men from the farms attended school, so that frequently the pupils were bigger and older than the teacher. Some winter terms the roll at Saltsprings contained more than one hundred names, so the teacher had to be a real general.

He next entered Bellevue College, New York, where he graduated as a Medical Doctor in 1892. He settled in New York and specialized in Dermatology. For many years he lectured on this subject in the Post-Graduate School. He died in 1943.

Alex was born in 1869. He was a very clever, likeable fellow, and very popular. He was a Dalhousie graduate and practised for several years in New Glasgow. He had many a hard long trip out the country, which was not to his liking, so he gave up general practise and moved to New York, where he specialized in Pathology. He became very proficient and held the chair of Pathology in the University of New York. He died about ten years ago.

No less than five medical doctors had their public school education in the little country school house at Lower Mount Thom. Angus Murray, Dan A. MacDonald, Lester Cameron, John Davies and Ross Davies.

Angus Murray was born on an unproductive farm on the southern slope

of Mt. Thom. He was one of a large family and his father died when the family was young, so Angus had no financial resources. He learned the carpenter trade, and by this means was able to get his Grade XI at Pictou Academy in 1899. Fortunately in those days the purchasing power of the dollar was much greater than at present, and one obtained board and lodgings in Pictou for three dollars a week. After leaving the Academy he went west on a harvest excursion and by working at his trade was able to finance his college course at the University of Manitoba. He settled in Winnipeg and specialized in Orthopedics. Being a good carpenter, he made a success of his specialty and was widely known, so that a large clientele was sent to him by the medical profession. In his later years he delighted to visit the scenes of his childhood, and although the old farm was deserted and the buildings fallen down, he spent many hours at the old place. He died in 1946.

His school mate, Dan A. MacDonald, is a tall, raw-boned Scotsman. He took his Grade XII at Pictou Academy in 1899. He has a keen sense of humour and some of his pithy remarks at the Academy are still remembered. Grade XII in 1899 was a real hazard. Twenty subjects were required for "a pass." The subjects were by no means elementary, e.g., Hall & Stevens Geometry, Hall and Knights Higher Algebra, Trigonometry, Nories Epitome of Navigation, Psychology, Astronomy, etc., etc. Dan taught school for a time and graduated from Dalhousie in 1905. He is still in practise at Shediac, N. B., although an encounter with a surgeon has restrained his activities.

Lester Cameron is the son of the late Lieut-Col. D. D. Cameron, of the 78th Highlanders. While a private in the first World War Lester developed cerebro-spinal meningitis at Halifax. He recovered and took his M.D. degree at Tufts and on account of asthma he settled in Arizona, where he is at present.

John and Ross Davies are brothers. A third boy, William, is a dentist, so that all the children of Duncan Davies are college graduates.

Jack took his medical degree at Dalhousie in 1916. He spent several years (6?) as an intern in the Genito-Urinary Department of the Royal Victoria Hospital in Montreal. When a new hospital was opened at Windsor, Ont., and a man was needed to head the Genito-Urinary section Jack was recommended and accepted the appointment. He still holds this position.

His brother, Ross, graduated at Dalhousie in 1924. He spent his first year, 1925, in practise at Saltsprings. There was a very heavy fall of snow that winter and on some occasions Ross was marooned at a farm house for days. The following year he moved to Londonderry, but he was not enamoured of general practise and accepted an appointment with a Health Unit at Kingwood, W. Virginia, where he still is.

Four doctors came from the Round School House at Saltsprings—Drs. J. J. MacLean, Jas. A. Proudfoot, myself and John D. Colquhoun. (Drs. J. J. MacLean, Frank Fraser, Minor S. Dickson, Sam Williamson and myself taught in this School.)

Dr. MacLean graduated from Dalhousie in the early 80's. He was a tall, dark-eyed, wavy-haired, handsome man. When teaching at Saltsprings, one of the boys, larger and older than he, undertook "to lick the teacher." The teacher had a round, heavy ebony ruler in his hand and one blow reduced the bully to subjection. There was no further trouble, but considerable "discussion" in the school section. Dr. MacLean first practised at Alberton,

P. E. I. Then, as now, this was a "great" horse country and it was not long before the Doctor was the owner of a race horse, which he drove himself. Pictures show him on a high-wheeled sulky and wearing a long flowing beard. From Prince Edward Island he migrated to Jersey City. As the horse was the doctor's means of transportation he took his stable with him. Even after the advent of the automobile he had a horse for his own pleasure.

Dr. MacLean practised when he was past eighty years of age. He died ten years ago.

Dr. James Adam Proudfoot, like the rest of these men, was a farmer's son. He was a rather small boy, but very sturdily built. In his school days he was generally at the head of his class and excelled in mathematics. From the Round School he went to Pictou Academy and thence to Dalhousie, graduating in 1905. He began practice at Inverness, where he is still working. Dr. Proudfoot is an excellent public speaker and debater. He represented Inverness in the local house for a term, but when representation of that dual constituency was reduced to one, he retired to his practice.

I was the next one to follow medicine from this school. I graduated from McGill in 1907 and was lucky enough to win both the Holmes and Wood Gold Medals. I interned at the Royal Victoria Hospital for two years, then spent a winter in Westville and on the death of Dr. Hugh R. Munro I moved to Stellarton where I remained.

Dr. John D. Colquhoun is quite a recent graduate—1932. He followed the usual course—from the country school to Pictou Academy and then Dalhousie Medical College. He was our houseman at the Aberdeen Hospital for several months and we were very much impressed by his skill and ability. He was "one of the best."

During the late unpleasantness he was a Lieut.-Col. in the Air Force and was for a time stationed at Dartmouth. On being demobilized he returned to his practice at Seaforth, Ont.

Drs. Helen MacLean Thompson and Donald MacIntosh started their schooling in the now vacant school at Limerock.

Dr. MacLean Thompson (nee MacLean) was a farmer's daughter on the east side of Central West River. Her family are all dead and the farm abandoned. She is an old lady but quite vigorous and still practises her profession in New York City.

Dr. MacIntosh's father was farmer and stone mason. He died when Donald was quite young and the family moved away from West River. Donald was a McGill graduate. He had his office in the Medical Arts Building, in Montreal. He died two years ago, while still a young man.

From the Ten Mile School came five doctors. Three of them, Charles H. Munro, Kennedy J. Munro and Hugh R. Munro were brothers, the sons of Taylor Munro. The others were James Brownrigg and Warren Clark.

Charles Munro was the "MacLure of the West River." He was born in 1836 and studied medicine at Harvard. He settled at his home and had an enormous territory to cover. Fortunately there were no telephones in those days and he was spared foolish calls.

His patients sent for him by horse and buggy and frequently he was taken back with the messenger. He was a small man, always very neatly dressed. He wore a short beard, (as did all doctors), which he kept very carefully

brushed. When he became bald, he combed the hair upwards from either side, meeting in a curl at the dome. He was very soft spoken and was very fond of telling of his experiences. During bad weather, especially in winter time, he often did not get back to his home for several days. For a term he was a member of the local legislature, but found that politics and medicine were incompatible and did not offer himself for re-election.

For the greater part of his life there was no hospital or trained nurses in this area. In the early 80's he moved to Westville and his practice was taken by Dr. Minor Stiles Dickson, and then by Dr. Albert Forbes, but in a few years Dr. Munro moved back to his old home. He had quite a nice farm and planted an apple orchard of which he was very proud. He died in 1908 at the age of 72.

His brother, Kennedy J. Munro, was born in 1846. He, too, graduated from Harvard and first practised at Economy. From there he moved to Manitoba and thence to Kansas City. In 1884 he returned to Nova Scotia and had offices at Scotsburn and River John. He later returned to his former practise at Kansas City, where he died in 1890.

Hugh R. Munro was born at the West River in 1860. He graduated from the University of New York in 1888, and started practice that same year in Stellarton. He was very popular and well loved by his patients. Although "a horse and buggy doctor," in his later years he had the advantage of treating patients in a hospital. He died in 1910 following an operation.

I have very little information regarding James Brownrigg. He attended Pictou Academy in 1895, and is reported to have graduated in medicine. He was a ship's surgeon for a couple of years and died of Pulmonary Tuberculosis.

Warren F. Clark was born on one of the most highly cultivated farms on the West River in the year 1889. From Pictou Academy he went to Queen's, where he graduated in 1915. He immediately enlisted in the R.C.A.M.C. where he spent the next four years. He was decorated with the Military Cross in France in 1918. Returning to Canada he spent the next two and a half years as an intern in the Royal Victoria Hospital in Montreal.

He had recurring attacks of nephritis, so moved to a milder climate than Canada afforded, and so settled in Hollywood, California. He specializes in Gynecology and Obstetrics and has an excellent reputation, and is a very busy practitioner.

Dr. Charles Thompson and Dr. Albert Forbes came from the Durham School. Their fathers were clergymen, but Dr. Thompson's father also owned and operated a very fine farm. Dr. Forbes never knew the joys of farm work, being bred in the manse.

These boys got their high school training by attending Pictou Academy by means of "the Students' Train." Every morning they drove three miles to Sylvester Station to meet the train, arriving in Pictou at 8.45 a.m. and then returning in the late afternoon. In spite of this handicap Thompson led Grade XI, winning the "Tupper Gold Medal." From Pictou, he took his Arts at Dalhousie, graduating with first-class honours in Classics and "The University Medal." He then migrated west and was Principal of Rossland Academy (B.C.) for five years, after which he spent three years studying medicine in Berlin, but obtained his medical degree at Reiss Medical College in Chicago.

He then interned for two years in the "Willard Parker Hospital" in New York, after which he formed a partnership with two other doctors, specializing in "Eye, Ear, Nose and Throat."

He next did post-graduate work in Vienna, and on returning worked by himself in New York. He is a visiting specialist at "The New York Eye and Ear Hospital," and the "Bronx Eye and Ear." He occasionally visits the old home at Durham.

Dr. Albert Forbes was a big, jolly fellow, always looking for a laugh. He was a Dalhousie graduate and practised at Central West River, after Dr. M. S. Dickson moved to Dartmouth. When Dr. Chas. Munro returned to his old home, Dr. Forbes settled in Stewiacke, where he died, a comparatively young man.

From down where the river joins its mates to form Pictou Harbour came Drs. H. K. MacDonald and George A. Dunn.

Dr. H. K., as he is known, graduated from "Old McGill" in 1896, so June last he was 50 years a doctor. He settled in Halifax and specialized in General Surgery and was for many years Professor of Surgery at Dalhousie University. Although near his "three score and ten" his natural forces have not abated and he is still busy in his profession. Long may he reign!

George A. Dunn graduated from Pictou Academy in 1900. He walked from Lyon's Brook to Pictou each day to get his high school education, yet was gold medallist in Grade XII in 1900. He graduated from Dalhousie in 1906 and settled in Pictou. He has had two encounters with surgeons recently, but has "renewed his youth" and is on active practice. His son, Dr. Stewart, helps him over the hard obstacles.

There are echoes of two West River doctors who flourished in the 60's and 70's, Dr. Henderson and Dr. McCabe.

Dr. Henderson's home was on a high hill of what is now the Proudfoot farm. It is hard to understand why he chose such an inaccessible situation. The view was very grand. The house has long since fallen down, but a number of years ago lads exploring found his saddle bags and they still contained vials of drugs.

He died in his sleigh one winter night returning from visiting a patient at Watervale.

Dr. McCabe is said to have taught his sister Ann to nurse his patients. He is remembered for his success in treating "white swelling." His method was hot linseed poultices for weeks, combined with rest—a modified "Bier treatment."

Canadian Research in Aviation Medicine

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DURING World War II there was a tremendous increase in the number of men flying at high altitude and in high speed aircraft. This greatly magnified some medical problems which had formerly been of minor importance, and added new hazards never before experienced by man. Numerous Canadian scientists of widely varied background, training and interest were engaged throughout the war period in a concerted effort to solve these problems. A complete account of their work would require a large volume; over one thousand scientific reports have been written. In this article only a very brief description will be attempted of the fields in which Canadian scientists worked and the more important contributions which they made.

Aviation medicine is not, as some have said, a new specialty which sprang into being during World War II. Extensive and valuable research into the special medical problems of flyers had been carried on between 1914 and 1920. Much basic scientific work had been done and many practical problems solved. But after 1920 medical research workers had other interests. No new work in aviation medicine was reported in scientific literature between 1921 and 1933. In the latter year several significant changes took place in various parts of the world and especially in the government of Germany. It is not surprising that reports of an increasing interest in aviation medicine began to come from that country within the next few years. Yet, in 1938, there were fewer than a dozen persons engaged in this field of research in the United States and none in Canada.

In 1938 Sir Frederick Banting became interested in the medical problems associated with flight after discussions with Major A. A. James of the R.C.A.M.C., who had for some time been trying to stimulate research in this field. Largely through the efforts of Dr. Banting an inter-departmental committee was established in Ottawa by the Minister of National Defence. This organization later became the Associate Committee on Aviation Medical Research of the National Research Council, with Sir Frederick as Chairman. Financial assistance was given to interested research groups to purchase or construct the special equipment required for many of the aviation medical studies. When war came in September, 1939, the nucleus of an aviation medical research team was already in existence and equipment available or in process of construction. Some of this equipment was of totally new design and permitted investigation of problems hitherto almost untouched. As a result, Canadian research workers were more than a year ahead of American groups in some fields.

Investigation of the special problems of flyers is usually called Aviation Medicine, but it is certainly not confined to Medicine alone. Scientists from many fields have added their efforts to those of the specialists in medicine and the medical sciences. In Canada, as elsewhere, it was a co-operative effort. Psychologists, physiologists, biologists, medical clinicians and experienced aircrew studied the problems involved in selecting the right men for training as aircrew. Physicists, engineers, biologists, physiologists, biochemists and textile experts worked together on the design and construction of oxygen equipment, flying clothing and other protective devices. Nutritionists, chem-

ists, bacteriologists and many others added their ideas and their skills to aid in protecting the airmen from the hazards of flight, to help in the prevention of disease, or to improve the efficiency of R.C.A.F. personnel.

Research projects in aviation medicine were organized by several civilian groups at Canadian Universities, especially Toronto, McGill, Western Ontario and Alberta. These were aided by financial grants from the National Research Council. Other investigations were undertaken in research units of the R.C.A.F. Medical Branch at Toronto, Regina, Halifax and Montreal. The work of these service and civilian units was correlated under the Associate Committee on Aviation Medical Research, but cooperation was very close in any event. Most of the projects had some civilian and some R.C.A.F. personnel working together. Close liaison was also maintained with the research workers in Great Britain, the United States, Australia and other allied countries.

The first studies were undertaken in the Department of Medical Research of the University of Toronto under the direction of Sir Frederick Banting. Two of the senior members of his staff, Professors G. E. Hall and W. R. Franks were especially interested in aviation medicine, and both later made extensive and valuable contributions to research in this field. Group Captain Hall, A. F. C. and Legion of Merit, was director of the Research Division of the R.C.A.F. Medical Branch from its organization in 1940 until his appointment as Dean of the Faculty of Medicine, University of Western Ontario, in 1944. Wing Commander Franks, O.B.E., was Director of Aviation Medical Research for the R.C.A.F. overseas, from 1941 to 1943, and succeeded Group Captain Hall as Director of the Canadian program in 1944. He has now returned to his position in the Banting and Best Department of Medical Research at the University of Toronto but is also Consultant Director for the R.C.A.F. Institute of Aviation Medicine.

The design of protective equipment on sound physiological principles occupied the attention of a considerable group of Canadian research scientists. Flying exposes man to environmental conditions that are far beyond the range within which the body is adapted to function. A buffer must be placed between him and the unfavorable environment, or he must have some means of carrying a suitable medium with him. For example, ascent to high altitude involves exposure to progressively decreasing atmospheric pressure, and this results in a smaller amount of available oxygen. The airman must be provided with an additional oxygen supply by a mask on all flights above 10,000 feet. At still higher altitudes, above 25,000 feet, there is a new hazard, that of decompression sickness, as the low pressure permits nitrogen to be evolved into the tissues in the form of bubbles. It is manifested by severe pain in the arms or legs which may make it necessary for the airman to descend to a lower altitude for relief. The newer types of aircraft avoid this danger by having sealed pressurized cabins. The crew inside may be at a pressure equivalent to 10,000 feet when their aircraft is flying at 40,000. Another hazard is the extreme cold which is always encountered at high altitude regardless of season or climate. This is especially important in military aircraft since the weight of heating equipment must be kept to a minimum to provide a larger bomb load or to permit higher flight. A fighter pilot may leave his base on a hot summer day at 85° F., or a Libyan aerodrome at 110° F., and in five minutes he may

be flying in an atmosphere of −20° F. or lower. High speed, noise, vibration, glare, air-sickness and many other factors must also be contended with.

In 1939 the oxygen masks used by British, American and Canadian personnel were very inadequate. They were extremely wasteful of oxygen, and many a mission had to be completed after the supply was all gone. In addition, the cold often made them useless at high altitudes. At 25,000 feet where a man cannot remain conscious for more than a few minutes without oxygen, the external temperature is about −40° F. Most of the military aircraft at that time were unheated or very inadequately warmed. Oxygen masks became caked with ice from the condensed moisture of the expired breath, and frequently the oxygen line was completely blocked. The small amount of moisture always present in commercial oxygen was also a hazard, since ice might block the tiny orifices of the valves of the oxygen cylinders. On the recommendation of Sir Frederick Banting and Dr. G. E. Hall the National Research Council provided the first experimental unit on this continent where the effects of low temperatures and low pressure could be tested simultaneously. This unit was installed at No. 1 Clinical Investigation Unit, R. C. A. F., Toronto, under the supervision of J. Shortreed, engineer in the Office of the Superintendent, University of Toronto, who later joined the R.C.A.F. as senior engineer in the medical research division. The installation consisted of a large cold room in which the temperature could be lowered to -65° F., with a low pressure chamber inside the room in which the pressure could be reduced to the equivalent of 50,000 feet. Studies were conducted jointly by R.C.A.F. personnel and members of several departments of the University of Toronto. The first oxygen mask which did not freeze up at low temperature was designed by this research team in 1941. These masks were used throughout the war on most of the Trans-Atlantic flights by R.A.F. Ferry Command and by R.C.A.F. aircrew in Canada. In addition essential features of the design were incorporated in later British and American models. Two of the men most prominently associated with this development were Wing Commander J. K. W. Ferguson, M.B.E., now Professor of Pharmacology at the University of Toronto, and Dr. E. C. Black, M.B.E., now Associate Professor of Physiology at Dalhousie University, both of whom also carried out extensive studies on the physiology of respiration. About the same time a practical method of producing dry oxygen was developed by Professor J. O. Wilhelm, O.B.E., and his associates at the Department of Physics, University of Toronto. Ice blockage of the oxygen pipe lines and valves was prevented, and the solution of the problem was then complete. Another joint project of the Department of Physics and the R.C.A.F. was the development of an "Oxygen Demand Valve." This provided an airman with oxygen in direct proportion to the rate and depth of his respiration, avoiding the earlier waste and providing an automatic increase in oxygen to compensate for any additional needs produced by exercise, cold or other factors. Squadron Leader F. E. J. Fry, M.B.E., formerly a biologist working on the respiration of fishes, was largely responsible for this invention. Other members of the oxygen research team who made valuable contributions to its success in many other projects as well as those described, were Flight Lieutenant J. S. Hart, biologist, Professor Grayson Smith, M.B.E., physicist, and Dr. G. F. M. Smith, M.B.E., who is now Professor of Biology at the University of New Brunswick.

To this low temperature low pressure chamber at Toronto, American investigators brought equipment and models for testing while similar installations of their own were being built. The scientists of the neighboring countries worked in close harmony on all such problems, and the Canadians were not by any means simply recipients of vital information and methods developed south of the border. The arrangement was one of mutual aid which was of distinct advantage to both.

In the same cold room extensive investigations were carried out on the physiological reaction of man to low temperature and protection from its harmful effects. Complete new outfits of clothing for ground-crew and aircrew were scientifically designed and tested to provide the maximum of comfort and efficiency as well as protection from the elements. An excellent electrically heated aircrew suit was developed, and was used in patrol aircraft off the Canadian coasts. Many of the features of its design and the physiological data on which they were based were also used by the air services of our Allies. Important new contributions were made to our knowledge of the physiology of temperature control. Prominently associated with the research on clothing were Group Captain G. E. Hall, Dr. H. C. Bazett, C.B.E., Dr. A. C. Burton, M. B. E., biophysicist of the Banting and Best Department of Medical Research, University of Toronto, now at the University of Western Ontario; Dr. J. A. Kitching, biologist, also of the Department of Medical Research, now returned to England; Wing Commander B. C. Coles, medical officer; Squadron Leader C. E. Coke, textile chemist, Dr. A. C. Goodings of the Ontario Research Foundation, and Dr. P. Larose of the textile laboratory, National Research Council.

High speed results in several serious problems in flying. The body can stand unlimited speed on a straight course, but rapid starting and stopping or any change in direction provide special stresses on the occupant as well as on the aircraft. Much research has been done on the design of safety belts, crash harness and parachute harness, which will hold an airman without themselves causing physical injury on sudden decrease in speed. The protection of pilots on extremely rapid take-off is also important, as in aircraft propelled from the decks of merchant ships. But the most interesting problem of high speed flying is that of "blacking-out." In pulling out of a dive or doing a high speed turn the airman is pushed down against his seat with increasing force. The greater the speed and the smaller the arc, the greater will be his increase in weight. A 150 pound man temporarily weighs 750 pounds at 5 G. Terrific effort is required to move the arms and legs and to control the aircraft, but a more serious problem is a sudden loss of vision. Under this force the blood becomes so heavy that very little of it gets back from the lower part of the body to the heart. There is then an insufficient supply of oxygen carried to the retina by the arterial blood and the vision fails. A few seconds later, if the manoeuver is continued, the blood supply to the brain becomes inadequate, and consciousness is lost. Consciousness and vision return when the centrifugal pressure is relieved by "levelling off." Loss of consciousness is sometimes accompanied by violent epileptiform convulsions.

In order to study the problem of "blacking-out" scientifically, the National Research Council financed the design and construction of a human centrifuge which was installed at No. 1 Clinical Investigation Unit, Toronto, under the

direction of Professor H. W. Price, M.B.E., Department of Electrical Engineering, University of Toronto. This was the first installation of its kind in any allied country, the only other one being in Germany. This was another vital piece of equipment which would not have been obtained except for the efforts of Dr. Banting. It is very similar in principle to an ordinary laboratory centrifuge. A vertical shaft bears a horizontal arm from which is suspended a car or gondola somewhat resembling an airplane cockpit and large enough to hold a man. When the vertical shaft rotates the car is swung in a circle 32 feet in diameter. The airman inside is pressed down against the seat and experiences the same sensations as occur in high speed manoeuvers in an aircraft. The first practical means of preventing "blacking-out" was a suit containing water-filled bladders over certain areas of the legs and abdomen. It was designed and tested by Wing Commander W. R. Franks, and his associates. The principle of the anti-G suit is that fluid pressure applied to the calves, thighs and abdomen prevents pooling of the blood in the veins of these areas and also supports the increased pressure developed in the arterial bed of the same dependent regions. There is, then, an adequate return of blood to the heart, which being also supported on the arterial side, can then pump the blood to the eyes and brain against the increased downward pull. Similar suits were later developed in the United States and were much publicized by stories in "*Life*" and other popular magazines in 1945, while the Canadian and British equipment was still officially rated as "secret." But the initial discovery, freely shared with the services of the allied countries, was made by a Canadian. In addition the American investigators used the Canadian centrifuge to test their first airfilled anti-G suits, and thereby were enabled to complete them a full year earlier than would otherwise have been possible. Sir Frederick Banting was killed in an airplane crash in Newfoundland while on his way to England to present the details of the Canadian anti-blackout suit to the R.A.F. Wing Commander Franks was already on his way across the Atlantic by ship when his "Chief" was lost.

Many other studies were made on problems relating to the protection of the airman during flight. Non-fogging, wide-vision goggles were designed at No. 1 Clinical Investigation Unit to protect the airman's eyes from wind, glare or flash burns in the event of an accident. Rapid methods were developed for detecting small amounts of the insidious carbon monoxide gas, should exhaust fumes find their way into the fuselage. Greatly improved intercommunication equipment was evolved, and helmets to protect against the incessant aircraft noise, and its deleterious effect on hearing. Dr. G. F. M. Smith worked on this project with Mr. J. E. Goodwin of the University of Toronto. Squadron Leader J.W. Rogers took an active interest in this work and has remained in the permanent R. C. A. F. to continue research in aviation medicine. Search for a preventive agent against the embarassing and disabling airsickness occupied the attention of several investigators. Squadron Leader G. W. Manning at No. 2 Clinical Investigation Unit, Regina, made important contributions to our knowledge of the factors which produce this condition. He used various types of swings to determine the kinds of motion which may be upsetting to the occupant. Valuable studies to determine the effect of "blacking-out" on the brain were carried out on monkeys at the Montreal Neurological Institute by Drs. Wilder Penfield and H. H. Jaspar.

Squadron Leader A. M. Fraser, working with Drs.Bazett and Kitching, helped to develop a pressure-breathing oxygen mask and vest. Ordinary oxygen equipment, even when delivering 100 percent oxygen, is unable to prevent anoxia above 38,000 feet because the atmospheric pressure is too low to permit complete oxygenation of the blood in the lungs. This new apparatus allowed our fighters to reach altitudes higher than 40,000 feet, and to bring down German reconnaissance aircraft whose pressure cabins had hitherto permitted them to fly unharmed above the highest levels which our men could reach without oxygen failure. S/L Fraser is a native of Scotsburn, Nova Scotia, and is now on the staff of McGill University.

After Sir Frederick Banting's tragic death Dr. Duncan Graham, C. B. E., Professor of Medicine, University of Toronto, was appointed Chairman of the Associate Committee on Aviation Medical Research. He had been a member of the Committee from the time of its organization, and was fully acquainted with the work. The aviation medical program in the Department of Medical Research of the University of Toronto, came under the direction of Dr. H. C. Bazett, C. B. E. The Canadian group was especially fortunate in obtaining the services of this outstanding scientist, who was one of the few survivors of the group which first developed research in the new field of aviation medicine during World War I. He obtained leave of absence from his post as Professor of Physiology at the University of Pennsylvania, Philadelphia, to come to Toronto. He was a very active member of the Canadian research group for over two years, then went to England for some months. He finally returned to the United States where his extensive experience from World War I and from the work with Canadian and British groups was of tremendous assistance in the rapidly expanding program of aviation medicine in that country.

Early in 1939 and 1940 considerable emphasis was placed on the development of better methods for the selection of aircrew. Medical standards were appraised, some modified and others discarded. Visual standards are especially important in aviation, and much work was done in this field under the direction of Wing Commander J.V.V. Nicholls of Montreal. Psychologists under the leadership of Dr. E. A. Bott investigated a number of tests which were designed to differentiate the potentially successful airman from the less promising candidate. Some of the procedures developed by Canadian psychologists proved of definite value. Others were tried and discarded.

In addition to the primary differentiation between potential ground crew and aircrew, selection was necessary for various aircrew positions and for different types of aircraft. For example, pilots of high altitude fighter interceptors, reconnaissance and meteorological aircraft often reached altitudes above 30,000 feet where there was danger of decompression sickness—the agonizing pains in the arms or legs which divers had called "the bends." Early in the war it was also expected that our bomber aircraft would soon be pounding Germany from the stratosphere, and decompression sickness would then threaten increasing numbers of airmen. The first extensive studies undertaken anywhere on altitude decompression sickness were made in London, Ontario, by Wing Commander K. A. Evelyn, and by the group who worked with the author at No. 2 Clinical Investigation Unit, Regina, including Squadron Leader G. W. Manning and Flight Lieutenant H. W. Smith. Low pressure chambers were used to simulate the effects of altitudes of 35,000 to 40,000 feet

with occasional hazardous ascents to even greater heights. Much basic information was collected at London on a group of volunteer medical students. In Regina a practical selection procedure was developed which separated the men who were susceptible to decompression sickness from those who had a natural resistance. A unit with twelve low pressure chambers was established at Halifax in 1942 to test all aircrew before they went on to operational flying overseas, and some of the staff of the Regina unit were transferred to carry out this work. Squadron Leader O. H. Warwick, of St. John, N.B., and Squadron Leader J. W. Thompson, formerly of the Harvard Fatigue Laboratory, were members of this unit. Airmen who were resistant to the "bends" were recommended for the extremely high altitude aircraft, and those who were susceptible, were suitable for aircraft that did not usually fly above 25,000 feet. As the air war progressed and tactics changed, it became obvious that the majority of flyers would not reach "bends" altitudes, and the selection was then limited to the prospective crews of the stratosphere aircraft. The major part of the selection methods worked out by the Canadian group were adopted by the R.A.F. as well. A tremendous amount of work was also done on the prevention of this condition in susceptible men, the results of which will continue to be of value to divers and other compressed air workers as well as to stratosphere flyers in non-pressurized airplanes. It might be mentioned that airmen are in a more fortunate situation than divers if they develop the "bends." In an airplane the cure is simple and permanent, consisting merely of a descent of a few thousand feet. But a diver or other compressed air worker develops the pain after he comes to the surface, and for him a descent is not so easy. Compression tanks are usually available wherever extensive work is being done at high atmospheric pressures. Anyone who develops the "bends" is relieved by increasing the pressure, and then a very slow decompression is necessary to prevent recurrence.

An extremely valuable part of the low pressure chamber program was the training which it gave the airmen in the effects of oxygen lack and the proper use of oxygen equipment. It was very difficult in the early part of the war to convince the airmen that they all needed oxygen when flying above 10,000 feet, because most of them felt absolutely no discomfort. This insidious effect of oxygen lack is its greatest danger. A man flying above 10,000 feet, or in a low pressure chamber, without oxygen will gradually become more stuporous, while all the time insisting in an alcoholic manner that he is perfectly well and capable of any activity. Only a small number experience the uncomfortable sensations usually described as symptoms of anoxia. Sudden collapse finally occurs if the oxygen is not provided. A harmless demonstration of the insidiousness of anoxia usually convinced the most hardened sceptic that his oxygen mask was his best friend. Frequently unconsciousness from anoxia was accompanied by epileptiform convulsions, severe enough in two known cases to cause a compression fracture of the body of a vertebra. These convulsive attacks are similar to those which sometimes occur in "blacking-out" from high centrifugal force. Cerebral anoxia is the cause in both instances, although produced by different mechanisms. On recovery of consciousness after anoxia or "blacking-out" the man has complete amnesia for the period of severe anoxia. For this reason most pilots were completely unconvinced that there was often a period of unconsciousness as well as loss of vision during high

speed manoeuvers, until moving picture records were taken with an automatic camera in the instrument panel.

In addition to the studies aimed at developing the best procedures for selecting aircrew personnel and for protecting them with special equipment while in flight, extensive research was also conducted on procedures to be followed and equipment needed in the event of emergencies. Considerable basic physiological research was done on the effect of exposure under different conditions. Emergency kits were designed to aid the crews of crashed aircraft. Extensive field trials of emergency equipment were carried out both in the Canadian northland and at sea. One of the most active medical research workers on these problems was Squadron Leader M. G. Whillans, now Associate Professor of Pharmacology at Dalhousie University. He personally conducted field trials of equipment on a dog sled trip of several hundred miles in the Yukon Territory and Northern Saskatchewan and a few weeks later was experiencing extreme tropical conditions while doing other field tests in the Mojave Desert of Arizona. He wrote the manual of advice carried by all airmen and enclosed in emergency kits. He also conducted many basic laboratory investigations.

The R.C.A.F. was the first service to provide its airmen with a satisfactory "ditching suit." Airmen who were forced down at sea—who, in service parlance, "ditched" their airplane—were provided with rubber dinghies which were released and inflated at the touch of a lever. But in the frigid climate of the North Atlantic their survival time was short if they got their flying clothes wet before getting into the dinghy, or if forced to stay in the water. In some areas where our patrols were on constant watch a man could live only 10 or 15 minutes if forced down in the water. The answer was provided by a simple, waterproof, rubber-coated nylon suit weighing only a few ounces, that could be donned in a few seconds over all flying gear and drawn tight with a zipper or draw-string at the neck. Tests were made by volunteer airmen and medical research workers in the sea off Halifax in the winter of 1943. The practicability and value of the suit were proven. The men with the suits were still perfectly comfortable, warm and dry, when those without such protection had to be taken off the dinghies to avoid excessively dangerous exposure. But a great deal of work by physiologists, clinicians, textile experts, aircrew men and others had gone into this project before the "simple" solution was found. One of the chief workers on this project was Dr. Edouard Pagé, now on the staff of the Faculty of Medicine of Laval University, Quebec.

Incidentally, while much of the testing of new equipment was done in the laboratories, final trials required human "guinea-pigs." This work was on a voluntary basis. No one was "detailed" by a senior officer. In tribute to the R.C.A.F. airman it should be reported that there were always far more volunteers than could be used, no matter how unpleasant or dangerous the experiment might be. It might also be mentioned that the scientist did not ask an airman to undertake anything that he had not already tested on himself, usually on more than one occasion.

Extremely valuable research on night vision was carried out by Wing Commander K. A. Evelyn and his associates in Montreal. A training unit was developed to allow airmen to increase their proficiency in discerning and identifying objects in very low illumination such as experienced on night

flights. Test equipment was also developed to select these with better night vision for aircrew positions where it was most needed.

Studies on the effects of exposure to heat and other tropical conditions were undertaken when it appeared that the R.C.A.F. would send a contingent to the Far East. Excellent work was done throughout the war on preventive medicine by adequate immunizations and other measures. Some of the medical officers in the R.C.A.F. hospitals also made great contributions to medical knowledge, especially in the treatment of burns, and in plastic surgery. Group Captain Ross Tilley, O.B.E., was Commanding Officer of a special hospital in England for such cases.

With the end of the war most of the research personnel, both civilian and R.C.A.F., have returned to peace time occupations. However, a determined attempt is being made to retain a working unit. The several R.C.A.F. research organizations have been united in the Institute of Aviation Medicine under the direction of Wing Commander W. R. Franks. Headquarters of this unit are at the former No. 1 Clinical Investigation Unit, Toronto, where the major pieces of research equipment are located. But there are provisions also for assisted research grants to Universities throughout Canada, and their research workers can have access to neighboring R.C.A.F. establishments and the use of special equipment. The Institute of Aviation Medicine has a research plant which is unsurpassed on this continent or elsewhere. Facilities include the human centrifuge, in which any high speed manoeuvers can be duplicated; low pressure chambers, where altitudes as high as 50,000 feet can be simulated; the combined cold room and low pressure chamber, already described; a sonic laboratory with simulated aircraft noise of 120 decibels, where physiological effects of noise can be studied and intercommunication equipment tested; a tropical room, where temperatures as high as 160° F. and a very wide range of humidity can be duplicated; a pool for testing flotation jackets, etc.; a laboratory well-equipped for biochemistry and bacteriology; and many other sections. There are ample facilities for extensive physiological and medical investigations, and it is hoped that the equipment will be used to full advantage. It will be equally available for basic scientific research and for problems of immediate practical importance.

If we should judge the future in the light of the past, we might not be too optimistic regarding aviation medical research. But it is to be hoped that the complete cessation of activity which occurred after World War I will not be repeated. Many exceedingly important and practical problems are still unsolved and require close collaboration between the physician, physiologist and biochemist on one hand and the aeronautical engineer, and physicist on the other. We in Canada have the facilities to make a worthwhile contribution. Our scientists solved or aided in the solution of many problems of aviation during the war. Their record had been applauded by their American and British allies. The future holds considerable promise that other problems of peace-time aviation medicine will be solved, and long range investigations undertaken, which had to be "shelved" during the war.

We all hope that there will never be another great war, but if it does come, success will depend on the knowledge and equipment developed by basic and applied research during the intervening period. In any event the knowledge

gained by a continuation of research in aviation medicine will have direct and important bearing upon our Canadian peace-time flying program, which is growing and should continue to develop with our great northern country.

Acknowledgment.—The author wishes to express his thanks to Dr. E. C. Black, Associate Professor of Physiology, Dalhousie University, for editing this report and making many helpful suggestions. Thanks are also due to the Editors of *Public Affairs*, published by the Institute of Public Affairs, Dalhousie University, for permission to modify and reprint this article from their March, 1947, issue.

The American Society for the Study of Sterility

John O. Haman, M.D.
Secretary-Treasurer
490 Post Street
San Francisco, 2, Calif.

Dear Doctor:

The third annual convention of the American Society for the Study of Sterility will be held at the Hotel Strand, Atlantic City, New Jersey, on June 7 and 8, 1947, preceding the annual A.M.A. Convention. The general theme of the meetings will be that of attempting to disseminate to the physician treating marital infertility an overall picture of the latest advances in reproduction. The convention will include original papers, round table discussions, scientific exhibits, and personal demonstrations. Registration for the sessions is open to members of the medical and allied professions.

Additional information may be obtained from the secretary, Dr. John O Haman, at the above address.

Sincerely yours,

JOHN O. HAMAN, M.D..
Per E.C.P.

Portal Cirrhosis*

S. C. Strickland, B.Sc.,M.D.,C.M.
Resident in Medicine
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THE clinical entity to be discussed is known by many different names, among the more common being Laennec's cirrhosis, alcoholic cirrhosis, multilobular cirrhosis—all referring to a process of degeneration and necrosis of the hepatic cells, with nodular regeneration of the cells which escaped destruction; and accompanied by a fibrous proliferation surrounding the nodules. In advanced stages it is accompanied by marked disturbances of portal circulation.[1] The course after onset of symptoms is fairly rapid and a fatal result is inevitable. At present no therapeutic agents seem to prolong life appreciably but the new dietary regime of high protein, high carbohydrate, high vitamin B complex and variable high to low fat diet appears to give encouraging results.[2]

The Etiology is unknown. Moore[3] divides the etiological factors causing portal cirrhosis into (1) hepatoxic agents and (2) nutritional deficiency factors.

Many hepatotoxic agents have been used to induce a Portal Cirrhosis. Moon[2] has thoroughly reviewed the field of experimental cirrhosis.

The recent experimental and clinical work seems to indicate that portal cirrhosis of the liver is a deficiency disease. Gyorgy and Goldblatt[4] through their experimental work on animals believe that the anorexia due to Vitamin B complex deficiency results in a deficient intake of protein. The attending lack of the lipotropic amino acids, choline and methionine, which are necessary for the fat turnover in the liver leads to increased fat deposition.[5] If the deficiency is chronic, extensive fatty infiltration of the liver parenchyma is followed by a degenerative process which ends in fibrosis or Portal Cirrhosis. A fatty liver may also be produced experimentally by high fat diet.

Glycogen storage is an important function of the liver; and an adequate amount of glycogen protects the parenchymatous liver tissue from damage by hepatoxins. But if excessive fatty acids are present, this protective action of glycogen is lost. So a high carbohydrate diet must be accompanied by adequate amounts of protein and vitamin B complex which are needed if the liver is to handle a large amount of fat.

Connor[5], in human alcoholic patients, has been able at the autopsy table to trace all stages of progression from the large smooth fatty liver, which is the most common finding in chronic alcoholism, through a hypertrophic stage of cirrhosis to eventual atrophy. It is commonly held at present that the effect of ethyl alcohol on the liver is probably due in great part to the nutritional deficiency that accompanies chronic alcoholism.[3],[7]

Virus hepatitis, both serum and infectious types, has been considered as an etiological factor in Portal Cirrhosis.[8] Cases illustrating the transition from hepatitis to cirrhosis have been demonstrated, the hepatic inflammation

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*From the Department of Pathology, Dalhousie University.

and cellular necrosis with leucocytic and histiocytic infiltration seen in "virus hepatitis[9]" going on to a picture resembling hypertrophic biliary cirrhosis. The end stages following prolonged hepatitis may be indistinguishable anatomically from ordinary atrophic or Portal Cirrhosis.[8]

Present Series: In the past fifteen years at the Nova Scotia Provincial Pathological Institute, 1360 autopsies were performed. In this group there were 21 cases of portal cirrhosis found at autopsy, giving an incidence of 1.54% of all autopsies. This approximates the incidence given in several large series. Levitt et al[10] had 31 cases in 4,260 autopsies, an incidence of .79%. Wilbur, Wood and Willett[11] had an incidence of 4.22% in 11,054 autopsies. Loesch[12] reported an incidence of 3.13% in 3,000 autopsies and he noted that 12.5% of cases of Portal Cirrhosis developed primary carcinoma of the liver. The Kirshbaum and Shure[13] series showed an incidence of 2.99% in 12,267 necropsies or 386 cases. In 184 cases Portal Cirrhosis was the primary anatomic cause of death, while in 172 cases the cirrhosis was an incidental finding. In our series of 21 cases of Portal Cirrhosis, 3 were an incidental finding while in 18 cases, Portal Cirrhosis was the anatomic cause of death.

Sixteen of our cases were in males, five were in females, this is a similar ratio with the generally found sex incidence. Twenty of the cases were in the white race, one was Chinese. The age distribution ranged from 14 years to 74 years; with 65% being between 40-60 years. An alcoholic history existed in 7 of our cases, an incidence of 33%. Ratnoff and Patek[14] found that 54% of their cases had an alcoholic history.

The relationship of Syphilis to Cirrhosis was not determined as the blood serology was not available on several, although 2 cases had a positive serology and 8 cases gave a negative Kahn Test. Neither dietary history, nor the history of exposure to toxic agents was available in the case records.

The Clinical Course: Five of the cases were classed as latent, an incidence of 25%. The literature gives an incidence of latent cirrhosis of 35-50%. The initial symptoms are reviewed in Table I.

Table I

Initial Symptoms	No. of Cases	Percentages
Swollen abdomen	7	33%
Abdominal distress (pain, indigestion)	5	24%
Hemetemesis	2	10%
Epistaxis	2	10%
Jaundice	1	5%
Latent	3	14%
No clinical history	1	5%

In one case epistaxis had been present 3 times a week for 2 years. Patient was hypertensive finally dying of cerebral haemorrhage, so that the epistaxis may have been due either to hypertension or Cirrhosis. The most frequent symptoms and signs are reviewed in Table II.

Table II

The most frequent symptoms and signs present in the 21 cases:

	No. of Cases	% of Total Cases
Abdominal swelling	12	57%
Oedema of extremities	9	43%
Loss of weight	7	33%
Abdominal Mass	7	33%
Jaundice	6	30%
Anorexia	5	23%
Dilated Abdominal veins	4	20%
Weakness	4	20%
Haemorrhoids	2	10%
Hemetemesis	2	10%
Epistaxis	2	10%

Abdominal swelling was the most common sign present in this series, being present in 12 cases, and in 7 cases it was the initial symptom. Oedema of extremities was the next most frequent, being found in 9 cases. Loss of weight was positively stated in 7 cases. In the other cases there is no statement as to weight.

An abdominal mass was palpated in 7 cases; jaundice noted clinically in 6 cases with an Icterus index ranging between 20-150. Anorexia was a positive complaint in 5 cases, although later in the progress of the disease loss of appetite was more frequently found. Dilated abdominal veins were positive findings in 4 of the 21 cases.

The haemoglobin level in the 8 cases recorded ranged between 45-84%, so anemia is commonly associated with the disease; in six white blood cell counts, the variation was 6,100 to 19,950 per cmm. Blood sugar level in 4 recorded cases was between 104-198 mgm. per 100 cc.

It is difficult to determine the survival of the patient after the onset of symptoms. In our series the following survival times were noted (Table III)·

Table III

Survival Rate after onset of Symptoms

Duration in Months	No. of Cases	Percentage of Cases
Less than 6 months	8	38%
6-12 months	6	29%
13-24 months	3	14.5%
Latent	3	14.5%
No clinical History	1	5%
	21 Cases	100%

Anatomically the liver was found to be normal in weight in 24% of cases. (The normal being taken 1200-1400 gms. in females, 1400-1600 gms. in males), while in 53% it was smaller and in 24% it was larger than normal. In 2 of the latter the liver was found to be the seat of a primary Carcinoma. The size of the liver at death in our small series was not related to the duration

of symptoms. The spleen size was enlarged in 53% and normal in 47%.

Ascitic fluid was found to be present at autopsy in 13 of the 21 cases, an incidence of 62%. Oesophageal Varices were found in 9 cases, an incidence of 43%.

In 3 cases—Primary Carcinoma of liver was associated with the Cirrhosis. In 2 cases—Banti's disease was observed. In 4 cases the Portal Cirrhosis was incidental to Multiple Myeloma, Massive Cerebral Haemorrhage, Diabetes mellitus and Scirrhous Carcinoma of stomach. One case was associated with Haemochromatosis or Bronzed Diabetes.

Summary

1. An analysis of the clinical and pathological findings in 21 cases of Portal Cirrhosis found in a review of 1360 autopsies is given.
2. Its etiology and relation to alcoholism is discussed, the condition occurring most commonly in males, 40-60 years. An adequate diet seems to have a definite place in the prevention; for Portal Cirrhosis is now considered to be a deficiency disease.
3. Primary Liver Cell Carcinoma was associated with three of the cases.

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Book Review

Medicine as a Profession. By G. H. Murphy, Professor of Surgery and Clinical Surgery, Dalhousie University.

This is the type of book which should be on the bookshelf of every pre-med who plans to enter Dalhousie. Dr. Murphy has compiled, from a wealth of clinical experience and knowledge of the fine arts, a series of six intimate talks to medical students which are comparable to those of Osler himself. They are arranged chronologically, the first applying to students ready to enter medicine, and the last to the fifth year interne, ready to graduate. Generally, they point out to the student the proper attitude to take toward medicine, and the various ways to glean a balanced education from five years' connection with the university.

The first talk stresses the importance of the history of medicine and urges self appraisal before the momentous decision to become a doctor is made. Keen powers of observation, a healthy interest in outside activities and a sense of humour are prime requisites of a good student.

In the second talk, to first year men, students are urged to maintain an interest in the long drudgery of anatomy and still hold to their ideals for the future.

Second year students are told of the work of Lister, Jenner, and Pasteur who pioneered the biological sciences which form such an important part of the first two years' study.

The fourth talk is mainly around the clinics of third year, wherein the student first learns to observe for himself, to study human nature.

The fourth year, as shown in the fifth talk, should be the year for combining and consolidating accumulated knowledge. Dr. Murphy urges the would-be doctor to be a good deal of a philosopher—which he himself certainly exemplifies. Here again the importance of anatomy and pathology must be recognized, along with the development of a "diagnostic concept." The student is advised to spend much time in the wards, the laboratory and autopsy room instead of too much time with books.

The final talk, to fifth year, contains last admonitions to the graduate—to avoid an over-bearing attitude, to be decisive, and above all to work hard.

With its reverent philosophy, its words of wisdom and guidance, *Medicine as a Profession* is a tribute to its author and should be a source of inspiration to medical students in general, and Dalhousie students in particular.

Neil Kenneth McLennan

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Neil Kenneth McLennan

Cases of Venereal Disease in Canada Reported by Provincial Health Departments to the Dominion Bureau of Statistics, 1944, 1945 and 1946

	1944	1945	1946
Total V. D.	38,772	40,528	41,569
Total Syphilis	16,475	15,279	15,228
Gonorrhoea	22,282	25,237	26,288
Ratio Gonorrhoea to Total Syphilis	1.4	1.7	1.7

In the past year 41,569 cases of venereal disease, all types, were reported by Provincial Health Departments to the Dominion Bureau of Statistics. Among these 26,288 were cases of gonorrhoea and 15,228 were syphilis, all types. The ratio of gonorrhoea to total syphilis was, therefore, 1.7 to 1.

From experience gained with the reporting of venereal disease in the three branches of the Armed Forces in Canada, from 1940 to 1944, it was noted that the ratio of gonorrhoea to total syphilis was approximately 6 to 1. This is supported by the finding that in the United Kingdom, among British troops stationed there, the ratio of gonorrhoea to total syphilis for the year 1942 was 8 to 1.

It would not seem unreasonable, therefore, to view the ratio as encountered in the Canadian Forces as a conservative indication of the relative frequency of occurrence of these infections among the entire population of Canada. Upon examination of this ratio for 1946—1.7 to 1—it is obvious that there exists a marked discrepancy in reporting, especially in the case of gonorrhoea, since a high percentage of patients suffering with syphilis attend the provincial V. D. clinics, where reporting is routinely carried out.

At this time a particular effort is being made to improve the reporting of all types of venereal disease by physicians. In the long run this will well repay the time and energy devoted to it by enabling those having to do with the administration of venereal disease control programs to have available dependable information on the extent of the problem in each province and to plan the necessary measures which will best assist practising physicians in their continuing efforts to control venereal diseases.

Volumes I and II, 1946, of The Hebrew Medical Journal

Harofe Haivri (The Hebrew Medical Journal) which is dedicated to the continued growth of Hebrew medical literature, has concluded its nineteenth year of successful publication, under the editorship of Moses Einhorn, M.D., of New York.

The medical section of Volumes I and II, 1946, contain the following articles: "Renal Lithiasis and its Treatment" and "Urinary Tract Infections" by Abraham Hyman, M.D., "The Menopause, an Endocrine Dysfunction" by Raphael Kurzrok, M.D., and "The Present Conception of the Treatment of Anemias" by Gershon Ginzburg, M.D.

Under the heading of Palestine and Health, Ch. Berlin, M.D. and N. Lass, M.D., offer two interesting surveys on prevailing skin and allergic diseases in Palestine. Dr. T. Ashkenazi writes on hygiene and sanitation among the Bedouins.

Dr. M. Sherman of Tel Aviv writes on the Palestine Jewish Medical Association (PJMA) of which he is the president. This association was organized in 1912 with a membership of eleven physicians. To-day, its members number 2300. Its functions are similar to the A.M.A. activities in America. The Association does not limit its activities and interests to scientific and professional matters. It is equally concerned with the health problems of the population of the country.

The sections on historical medicine contain two articles by Dr. Z. Muntner; one on the great physician and philosopher, Sabbathai Donnolo who lived in the 10th century and contributed much to the renaissance of medicine in Italy, and the other on the ethics of the Jewish physicians in the ancient Hebrew literature.

In addition, Volume I, 1946, contains a contribution of particular interest by the Editor, Moses Einhorn, M.D., on the impressions of his recent flying trip to Palestine. As a former resident and graduate of the Herzlia Gymnasium of Tel Aviv, it was for Dr. Einhorn a visit to his old home, and he writes in detail on the many important changes that have taken place since his previous visit.

Editorial Office: *The Hebrew Medical Journal*, 983 Park Avenue, New York 28, N. Y.

EDITOR'S NOTE: The two volumes above-mentioned have been received and have been sent to the Medical Library where they may be consulted by anyone interested in doing so.

Personal Interest Notes

THE BULLETIN extends congratulations to Dr. and Mrs. N. A. Morrison of Musquodoboit Harbour on the birth of a son, James Charles, on March 16; also to Dr. and Mrs. B. K. Coady of Antigonish on the birth of a son, Peter Martin, on March 17; also to Dr. and Mrs. H. J. Martin of Sydn Mines on the birth of twin daughters at the Hamilton Hospital on April 4.

Dr. B. H. Calkin of Stellarton has submitted the following toast which the editors of the BULLETIN feel can be appropriately quoted at this juncture:

> Here's to the stork, a most valuable bird
> That inhabits the resident districts.
> He doesn't sing tunes, nor yield any plumes
> But he helps out the vital statistics.

Deadline

May 1, 1947, is the deadline for entering the $34,000 prize art contest on the special subject of "Courage and Devotion Beyond the Call of Duty" (on the part of physicians in war and in peace). This contest is open to all M.D.'s in the Western Hemisphere. The exhibition will take place in conjunction with the A.M.A. Centennial Session at Atlantic City, June 9-13th, 1947. For complete information, write or wire now to Francis H. Redewill, M.D., Secretary, American Physicians' Art Association, Flood Building, San Francisco, California, or to the sponsor, Mead Johnson & Company, Evansville 21, Ind., U. S. A.