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Medical Practice in Korea

F. J. Murray
Hamheung, Korea, and Halifax

MEDICAL practice in Korea differs from practice in this part of the world in three chief respects, viz., difference in incidence of diseases; different habits and customs predisposing to certain conditions or affecting treatment; lower standards of living and ignorance making effective treatment difficult.

It is not the object of this paper to refer to conditions that are similar to those found elsewhere but rather to indicate the differences. Records being unavailable, one has to depend on impressions and memory, the results of which are presented for what they are worth.

Koreans have excellent teeth, perfect in appearance and remarkably free from decay.

Diseased tonsils are relatively infrequent.

Myopia is common and is adversely affected by long hours of close study, often in a very poor light, of the complicated Chinese characters. Lenses are worn by many students but not by nearly as many as need them, social custom making it appear too "high collar" for young people to wear glasses in front of their elders.

Trachoma is another condition of the eyes frequently found that constitutes a public health problem in schools. It does not appear to be as infectious as is sometimes thought, most of those suffering from the disease having contracted it from close association with an older person, often the grandmother, with trachoma in the home or from the use of the "family towel" in such homes. Many severe complications result and blindness is not uncommon in the later years of the disease. Treatment is painful and lengthy. The sulphonamides do not seem to be as effective in this condition as the first reports suggested.

Korean skulls are rounder than are western ones, and are very definitely flattened on the back. How much this is a racial characteristic and how much due to the habit of keeping infants always lying flat on their backs it is difficult to say. When, once in a while, someone is seen whose head is not nicely flat on the back or is a bit asymmetrical, the remark is made that the individual was a naughty and restless child who tossed about instead of staying properly put.

Genu varus is universal. It is probably begun by the custom of carrying infants and children on the back with the legs compressed to the sides of the bearer by tight binders, and continued by the habit of sitting cross legged on the floor.

Due to the fact that there is less mechanization, injuries are less common than in the west.

Degenerative diseases are apparently less frequent but it must be remembered that people die younger, fewer of them reaching old age. Blood pressure is definitely lower than in the white race but there are cases of hypertension and cerebral haemorrhage is not uncommon.

Heart disease, diabetes hyperthyroidism, and pernicious anaemia are infrequently seen. Secondary anaemias on the other hand are extremely common.

Of non-infectious diseases probably those of the digestive organs are the most frequent. Here, I believe, the habit of eating rapidly with little chewing large quantities of bulky food highly flavored with incredible amounts of red pepper has something to do with the incidence of digestive trouble, including gastric carcinoma which is very common.

Tuberculosis in the various sites is probably the most wide spread disease and the greatest scourge in the country. About fifty per cent of all hospital patients suffer from tuberculosis. Lung, bone, peritoneum, and kidney are the most favored sites. For some reason tuberculosis of the cervical glands s seldom seen. Possibly it may have some relation to the fact that bovine tuberculosis must be rare in Korea since milk does not enter into their diet The prevalence of the disease depends upon a low economic standard, over crowding, ignorance of the mode of infection and how to prevent it, and lack of facilities for treatment or segregation. With a population of twenty-four million, Korea has one sanatorium.

There is also no provision for the care of patients with mental disease except for small wards in connection with two of the general hospitals in the capital city. Insane patients roam about begging unless they are violent in which case they are usually kept tied up by their relatives.

Neuroses, especially neurasthenia, are frequent and very difficult to treat on account of lack of understanding and cooperation on the part of both patient and relatives alike. All insist on being cured with some powerful medicine, preferably injections, and if speedy improvement is not evident, they go on to the doctor who is willing to promise that happy result.

Due to the habit of gulping food, fish bones and other foreign bodies are commonly found impacted in the oesophagus or lower down. I have removed a large bone from the rectum where it had become impacted just above the anal sphincter after having successfully run the gauntlet that far. Another patient complained of a sharp stinging pain in the same situation. A long thread was found hanging from the anus. Traction on the thread produced a needle. The patient then remembered having felt a strange pricking sensation in her throat a few days before while eating some long strands of macaroni.

Diseases of an infectious and parasitic nature are relatively much commoner than in the west.

The most frequent and widespread diseases due to protozoa are malaria and amoebic dysentery. The former in Korea is chiefly benign tertian and is often diagnosed and treated by the patient himself. In hospital it is to be suspected if after an operation the patient suddenly has a chill and high fever. Otherwise relapses do not seem to be common or severe.

Amoebic hepatitis and liver abscess are not infrequent complications of amoebic dysentery. Bacillary dysentery may be present at the same time complicating both diagnosis and treatment. Due to the combined treatment of amoebic liver abscess, aspiration of the abscess together with the intravenous injection of emetine, which was first advocated by Dr. A. I. Ludlow of Severance Union Medical College Hospital in Seoul, Korea, and now adopted wherever such abscesses are found, that formerly dreaded condition has been robbed of its terrors.

Bacillary dysentery is usually a more severe disease than is amoebic dysentery. If the two are present, especially in very young or debilitated people, they may prove fatal in a very few days. The organisms responsible

are various and in the ordinary small hospital without expert bacteriologists to make the diagnosis it is often impossible to tell which ones are at fault. The Shiga and Flexner organisms are supposed to be the commonest and, in addition to symptomatic treatment, a combined antidysenteric serum specific against several of the usual organisms is generally given. This sometimes gives excellent results and as often fails, no doubt because the serum used is not specific for the particular organisms present.

Of febrile diseases due to spirochaetes those seen in Korea are relapsing and rat bite fever. Neither is common and, if one only thinks of them, diagnosis and treatment are simple. The microscope will settle the former and a small dose or two of an arsenical will be all that is required for the latter.

Typhoid and the paratyphoids are endemic. Hundreds of people die of typhoid every year while hundreds more recover without ever seeing a doctor.

Typhus is less common but more fatal. This disease accounts for a considerable percentage of the deaths among foreigners in the Far East.

Smallpox is another disease that periodically becomes epidemic and carries off numbers of people in spite of real efforts on the part of the authorities to keep it under control.

Such attempts have been successful in the case of plague and cholera both of which prevail in China and Manchuria but have not invaded Korea for two decades or more.

Leprosy is common in the south and there are supposed to be at least twenty thousand cases in the country. This is almost certainly an underestimate as early cases, dreading their inevitable fate, hide their condition as long as possible. About two thousand lepers are under treatment in mission leper colonies where the patients live in homelike conditions doing much of the work of the colony and being taught to give their own treatments, even to operations such as enucleation of the eye and amputations of limbs. The government also has a colony where several hundred lepers are treated. Many cases have been rendered bacilli free while the disease is clinically arrested. The problem of rehabilitation then arises. As far as the public is concerned a man without eye brows or fingers is a leper and cannot live or work with others. To help these people village settlements have been established outside the leper colonies and here many former lepers live and work apart from the general public.

The Korean diet being a very good one, deficiency diseases are not common except among students who have been studying in Japan. Many of these return with beri-beri which is extremely debilitating and often leaves the sufferer an invalid for months even when high vitamine treatment is administered. This disease is a real problem to the Japanese who have made a special study of it and have developed several effective preparations for its treatment mostly from rice polishings. The admonitions to the public to eat less highly polished rice fell on deaf ears but now with rice rationing it has likely been made compulsory.

Pellagra has occurred in the leper colonies, when the meat supply was low. The patients themselves know what to do. As soon as a case appears they kill several pigs and there is no more pellagra.

Drug addiction is more common than in the west. This is due to various factors chief among which are the love of the public for hypodermic and intravenous medication of any kind because they consider it more efficacious,

and the love of the doctors for the same thing because they can charge more for it. Narcotics can be obtained without much difficulty in spite of regulations in regard to their purchase, and there is not much of an attempt made either to control the situation or to cure the addicts. The chief drug used is morphine. Opium eating and opium smoking are not problems in Korea.

Venereal diseases present no special differences from the same conditions seen elsewhere except that gonorrhoea is probably more common. Except among the Christians a man who has not had gonorrhoea is said not to be a man. The social results in the case of women are more serious for them since if they do not produce the sons expected of them they are often supplanted by concubines or, in the case of the poor who cannot afford two wives, the first wife is likely to be turned out altogether.

Syphilis is not as common as one might think from the above and it is either a mild strain or the people have developed considerable immunity for one seldom sees tertiary lesions or cerebro-spinal manifestations though treatment is very often inadequate or neglected altogether.

Surgical conditions on the whole are much the same as in other parts of the world. It was once said appendicitis did not occur in the far east. This was long since proved false. The reason for such an error was doubtless that in the early days of modern medicine in those lands before the people gained confidence in medical science such cases were not seen in the early stages. If the patient survived, he might try the hospital after several days of suffering when the condition had developed to a state of general peritonitis. Even twenty years ago most cases were first seen in such advanced stages that they were hopeless and the cause of the condition was a matter for guesswork, since the original symptoms were completely masked by later developments. In later years, with increased confidence in scientific medicine these cases are seen in about the same proportions and at similar stages to what is seen here.

Intussusception presents a contrast to that condition in other parts of the globe inasmuch as the majority of cases seen are in adults. In chronic cases the symptoms often continue for several weeks before the patient seeks advice. These cases seem to get on remarkably well in spite of attacks of colic and the presence of blood in the stools even though at operation one usually finds a very extensive invagination of the bowel with what looks like complete obstruction. Reduction is seldom possible and resection of a large portion of the colon is often required.

Thromboangiitis obliterans is fairly frequent, several cases being seen every year, all eventually coming to amputation. Sympathectomy seems to help early cases for a time but these seldom agree to the operation until it is too late to hope for much relief from it.

Acute intestinal obstruction is much commoner than in the west. All the usual causes operate, strangulation behind bands of adhesions being often seen, doubtless due to the prevalence of tuberculosis of the peritoneum. Some cases have recurrences that require operation three or four times. Another common cause of obstruction is masses of round worms in the bowel and also spasm of the bowel apparently excited by the presence of masses of the worms not large enough to cause mechanical obstruction by blocking the lumen. The possibility of acute obstruction from the presence of worms often causes great difficulty in differential diagnosis, while it is important to make the diagnosis as worms can usually be dealt with satisfactorily by medical means.

They also are responsible for serious complications in operations on the bowel, working their way through the suture line into the peritoneal cavity or blocking tubes inserted for the purpose of decompressing the bowel above an obstruction.

Stricture of the oesophagus is another condition of which Korea has more than its share. This is usually caused by taking lye, the dry salt or a strong solution, generally with suicidal intent. If the patient survives the early stage, stenosis inevitably results, presenting a surgical problem not always easy of solution Some surgeons advocate immediate operation and feeding by gastrostomy tube in order to rest the oesophagus but most patients do not agree to surgery at that stage. Later, gastrostomy and dilatation by means of graduated beads on a silk string is done with good prospect of success. The use of bougies is difficult, uncertain in its results, and not devoid of danger.

Snake bite is invariably treated on the spot by the application of a tourniquet consisting of a switch of hair borrowed from the nearest woman and left on for hours, the doctor seeing the case only days or weeks after gangrene has set in. One such case came to me three months after with the request that I put the flesh that was falling off the bones back on again.

A doctor of my acquaintance was once confronted on the top of a mountain with a patient just bitten by a venomous snake. The pulse was uncountable, and the patient in shock. Nothing else was available for treatment and the doctor immediately applied a tourniquet above the bite which was on the ankle. Every half hour he loosened the bandage for a few seconds to permit the blood to circulate. The pulse which had recovered to a considerable extent in the interval, instantly became rapid and weak. The doctor spent the night with the patient but succeeded in this way in saving both life and limb. There are few poisonous snakes in Korea and many of the limbs lost, supposedly as a result of their bites, are lost as a result of the misguided first aid treatment given.

Tumors are often neglected until very large when first seen. I have seen a mixed tumor of the parotid that was considerably larger than the patient's head. It was carried supported by the hand on the same side, that elbow being supported in turn by the opposite hand. Having had the tumor for over thirty years the patient had become quite attached to it and refused to part with it in spite of the natural desire on the part of the surgeon to acquire the specimen.

Ovarian cysts reach the most impressive size. One in a very small woman who was also eight months pregnant at the time of operation contained two large buckets of fluid. The pregnancy continued undisturbed.

In another case a large ovarian cyst, two good sized fibroids, and a lithopaedion were removed from the same abdomen. Two full term fetuses were removed from abdominal cavities, one three months after full term, one fourteen months after.

The usual treatment of prolapse, stuffing the vagina with rags soaked in kerosine and setting fire to them, results in stenosis of the cervix and vagina, obstruction in labor, and vesico-vaginal fistula.

Infestation with intestinal parasites is practically universal, the majority of patients harboring more than one variety. Liver and lung flukes are also common.

Practice in the East offers infinite variety and calls for quite as much alertness in diagnosis and care and ingenuity in treatment as anywhere in more advanced countries.

To deal with this medical situation there are three classes of medical practitioner licensed by the government, The first consists of graduates of government recognized medical schools in Korea and Japan whose qualifications are good throughout the Japanese empire. The second comprises those who, though they have not studied in any school of medicine, have read certain medical text books at home and produce a certificate from a qualified doctor stating that they have put in some time in his clinic or hospital. These after passing examinations receive limited licenses to practise in a certain district to which they are assigned. The third category is composed of old style practitioners whose armamentarium consists chiefly of concoctions made from herbs, bear's bile, deer horn, lizard's legs, spiders, and such potent remedies, and whose surgical skill in inserting unsterilized needles in one hundred safe points in the human anatomy knows no contraindications. Both limbs and lives have been lost from infection from such treatment of fractures, colic, and other conditions. Licenses are still being issued to these three classes but a date has been set in the near future after which no more of the second and third class permits will be granted.

A menace to the public is the untrained midwife and the old woman who goes about the villages creating invalids by her barbarous treatment of prolapse.

The course in the medical schools is a four year one, matriculation being from high school without further premedical training. No internship is required although some graduates avail themselves of such opportunities. Young graduates may enter upon private practice without ever once having given a hypodermic injection, opened an abscess, given an anaesthetic, extracted a tooth, or delivered a baby.

Most doctors are located in the cities and larger towns, there being very few in the villages and country districts. The reason given, which probably contains some truth, is that the rural people as yet do not appreciate modern medicine and a practitioner of it would starve among them. As about eighty-five per cent of the populace live in the villages, this leaves a very uneven distribution of the medical personnel.

The training and standards of nurses fall even below that of the medical profession. For years the Japanese Nurses' Association tried and failed to gain recognition from the International Association as they did not come up to the standard. Matriculation is from primary school of six years, the course is a two years one only, and girls who have never seen a hospital may study at home and if they pass the government examination become licensed nurses. Japanese girls rarely fail and, until the war situation called for more nurses, Korean girls seldom passed. There was a good deal of indignation among our staff one year when a Japanese girl who had never spent a single day in a hospital took the government examinations along with several of the graduates of our three years nursing course, passed and received a license, while all our girls, though they were capable nurses, failed.

Under the Japanese system the nurses' duties seem to be to take and record the temperature, to place the medicine bottle on the bedside table for the patient to take as it pleases him, to give injections, help with dressings, light the doctor's cigarettes, and sweep up the floor once in a while. Giving baths is no part of her work and many patients do not have any during their stay in hospital though that may be for weeks or months. They also go off

duty at ten o'clock at night, the relatives caring for the patients the rest of the time.

Midwives, on the other hand, are pretty thoroughly trained, this being a one or in some places a two year course quite separate from the nursing course. There are practically no nurses on private duty in Korea but every town has one or more midwives many of whom are experienced and capable.

There are government hospitals in all the large towns, many of them well equipped. Some charity work is done but it is not easy to get admission as a charity patient and the head man of the village from which the individual comes must give his recommendation. Each place has its quota and when it has been reached, other patients though equally deserving, generally find themselves out of luck.

There are about thirty mission hospitals in Korea varying in size from about twenty-five beds to over two hundred. These make considerable efforts to attain and keep up higher standards of discipline, order, nursing, and medical care than is found in other institutions. Here too, charity is given to those who need it.

The staffs of all hospitals are full time salaried doctors. The system whereby private practitioners give part time to hospital work on a voluntary basis does not exist.

Most hospitals do not provide either food or bedding. These are brought from home or sent in from outside. Under this system special diets play a very small part in treatment. Visiting hours are quite unrestricted and groups of friends come and go as they please all day and often all night, and are even permitted in the operating rooms to watch the operations.

Most general practitioners have private hospitals with accommodation for ten patients, a larger number than this requiring a special permit. No laboratory or nursing facilities are provided but the patients who lie on the hot floors surrounded by their families and friends feel more at home in such surroundings than in larger institutions with cold high beds and, therefore, many prefer the private hospital.

In Korea whenever possible medicine is given by the needle, even magnesium sulphate being given thus. The patient who can see a large syringeful of potent looking medicine being shot into his blood is sure it will be more effective than if merely taken by mouth, while the doctor can collect a larger fee for his services, and every body is happy.

Medicine in the Far East is more a business than a profession, and medical ethics is scarcely recognizable as such. Doctors disparage the work of their confreres to their patients, themselves promising cure within a certain time. Patients call half a dozen doctors at a time and each one gives an injection and makes a charge although he knows others are treating the patient. This is done quite shamelessly even while the patient is in the private hospital of a fellow practitioner. Patients have little confidence in doctors and go from one to another so that no one has an opportunity for continuous care. This is discouraging to the doctor and both profession and public suffer from the vicious circle created.

Public health matters are under the Sanitation Department of the government, supervised and carried out by the police. The heads of the provincial departments are not medical men. Accordingly the highest efficiency is hardly to be expected.

Filtered water supply is now provided in all cities but even in the largest it is insufficient for the needs of the population and many still drink from open wells that are grossly contaminated, while in the villages this is the rule. Some wells are covered in and pumps are coming into general use but even where surface water is excluded seepage from nearby drains, refuse heaps, and cess pools is common.

In all cities the sewerage system is largely of the open variety, open ditches along the streets draining into huge open sewers flushed out only by the summer rains and smelling to high heaven all the rest of the year. Even in Tokyo, the pride of the empire, is this the case.

There is medical inspection and quarantine facilities at all the ports.

All houses and premises are required by law to be thoroughly cleaned out twice a year. This is done on different days in different districts and is supervised by the police who visit every house and see that each article is carried into the street and the house swept out. The yard too must be put in order.

The cultivation of ginsing, a drug greatly valued in the east, and the manufacture and sale of narcotics are government monopolies. Addicts have to be reported but there seems to be no concerted attempt to cure them. Permits to buy their accustomed drug are issued to them so they have no difficulty in obtaining their supply.

Acute infectious diseases also must be reported and patients with such conditions are supposed to be treated in special infectious diseases hospitals or departments of general hospitals separate from other buildings for which a special permit is issued. These are not allowed to accept cases of smallpox and these must go to the government pest house. This is not a popular institution and for years it was said among the people that no patient who went there ever came back alive. Consequently the family of the sick one objected to the case being reported and doctors who did so in spite of the family were sometimes mobbed, lesser measures of reprisal being quite common. This attitude was due not only to ignorance and prejudice but partly to the manner in which the pest house was conducted. The patient was put in a cheerless and practically unheated building, was not provided with bedding, no nursing care was given, and the doctor's visits were said to be infrequent.

Another objection to the reporting of infectious diseases was due to the quarantining of the household and the disinfection that was carried out by the police, articles that a poor family could ill afford to lose often being destroyed in the process. Patients dying of an infectious disease have to be cremated according to the Japanese custom which is extremely repugnant to the Koreans who bury their dead.

Regardless of the nature of transmission of infection, the same mode of disinfection is carried out in all cases, consisting chiefly of spraying disinfectant over the patient, his household, and everything in the house.

In an infectious hospital a large mat moistened with lysol solution must stand at the front door for people to walk over as they leave and a spray pump must be at hand to spray their clothes. Gowns and masks are not a part of the system.

During epidemics the pest house and infectious diseases wards are often insufficient to provide accommodation for the cases reported, in which circumstances the police often change the diagnosis of the doctor to one that does

not require to be reported. This can be done over the telephone without seeing the patient and saves trouble for everybody.

I once reported a case of smallpox that was carried into my surgical clinic and deposited there. After a few hours a policeman came, put on a pair of white cotton gloves, examined the child, then still wearing the gloves, removed a pencil from his pocket, moistened it in his mouth, and proceeded to write out his report.

A great deal has been done to prevent smallpox. All school children must be vaccinated at least two or three times during their school years. Others are urged to be vaccinated and vaccine is provided at a very low cost. In time of epidemics vaccination is made compulsory and all who cannot at all times produce a vaccination certificate of recent date or show a fresh scar are vaccinated on the spot. Police are stationed at the railway station, all entrances to the towns, and cross roads for this purpose. Vaccination against typhoid is encouraged but not very commonly resorted to. Effective vaccine against typhus has been perfected in China but is not yet commercially available.

Physical examinations of teachers and pupils in schools are carried out but have to be done in such haste as to be quite perfunctory and there is no follow up to see that the child gets any treatment advised. Some health instruction is given in the schools and physical exercises and other training of a highly military nature has recently taken up a large proportion of the time even in schools for girls.

The problems of leprosy and tuberculosis have scarcely been touched. The government has one leper colony and is now building its first tuberculosis sanatorium. Lepers travel freely about the country begging as they are not allowed to live and work with others. In a few places in the south where leprosy is most common the mission hospitals have been given permission to open treatment centres where the lepers can go once a week for injections of chaulmoogra oil. This has been a great boon, not only in providing treatment, but in bringing lepers out at an earlier stage than formerly when they hid their condition as long as possible. Now some of them are cured without ever developing the stigmata of the leper and can thus remain in or rejoin the life of the community. In our district we were refused permission to do this on the grounds that it would bring more lepers to the place.

Though the sanitation department suffers from lack of cooperation on the part of the public, one cannot but conclude that it is a fatal weakness for it to be under the police instead of those medically trained, and that the unsympathetic way in which its work is often carried out militates against its usefulness.

The Great Row of '85

H. L. Scammell, M. D.

Halifax, N. S.

ON May 1st., 1884 the members of the Corporation of The Halifax Medical College sat in solemn assembly at Mount Hope Asylum. It was the Annual Meeting. After the ordinary business had been completed Dr. J. F. Black asked leave to introduce the following Resolution:

"Whereas—The Medical College in Halifax has now been in existence for seventeen years;

And Whereas—At its inception it was supposed that long before the present time it would have grown to larger proportions;

And Whereas—This has not been the case, the number of students remaining almost the same and no change for the better seems probable;

And Whereas—By the loss of some members of Faculty and the want of interest of those (most) who remain, the work of the College is not being efficiently done, or at least is not being done in any improved manner;

And Whereas—The remaining members find the work a great tax and do not believe they receive or are likely to receive any adequate return for the time and work given;

And Whereas—The Annual Grant from Government is not likely to be continued;

And Whereas—Amalgamation with Dalhousie University does not appear practicable in any way that would afford tangible results in improving the present state of affairs;

And Whereas—The Institution is in as good if not a better position financially at present as it is likely to be at any future date;

Therefore Resolved—That the question of discontinuance of the institution be seriously, calmly, and deliberately considered at this meeting."

As might well be imagined there was a "long discussion," and in the most approved manner a committee was appointed to consider and report on the general condition of the college, having found its financial heart sound, and suggest any changes tending to its betterment. In addition the committee was to explore the chance of amalgamation with Dalhousie University.

On June 13, 1884, the committee reported, and it was decided, though not unanimously, to continue for another session. Dr. Black was strongly in favor of closure. He shortly afterwards went to the United States, and soon afterwards was succeeded by Dr. A. W. H. Lindsay.

The Corporation was fully occupied with the mundane round of opening another session, collecting fees, working out lecture courses and squaring the sails of embryonic physicians to the gusts of learning from the Faculty until February 4th, 1885. Meeting as usual at the Asylum, Dr. D. A. Campbell again re-opened the question of continuance or closure. He was at the outset of the firm opinion that if matters were to go on unaltered, the College should close and the sooner the better. However, if progress was promised on the

following programme, he was disposed to urge its continuance with equal fervor:

1. That "carelessness and lack of enthusiasm in the teaching staff brought about by the slow advance of Halifax, large loss of teachers and too much conservatism in management," resulting in a decline in student attendance, be speedily amended.

2. That the growth of Halifax as an educational centre due to the "magnificent generosity of George Munro," as the centre for the Maritime Provinces of Legal Education, must stimulate the idea that this city could likewise become the Medical Centre. To accomplish this there must be a good medical school, "supplying a respectable qualification."

3. That to this end there must be an active local Medical Society and an equally active provincial one. This would stimulate the faculty by contact with confreres graduated from other schools of medicine and at the same time it was hoped awaken interest in the school on the part of outside physicians.

4. A Medical Journal must naturally follow.

Dr. Farrell then gave his views. He said that Dr. Campbell's proposals would be a fine superstructure if the school had $100,000 as a foundation or the enthusiasm to work without hope of reward which existed at first. "The difficulty is we have neither." He was inclined to be quite optimistic and thought by increasing the size of the faculty and distributing the work more widely, all would yet be well.

Dr. Campbell was definitely of the opinion that since this was tried and had failed before, its failure this time would be equally certain.

Dr. Sinclair did not consider the prescriptions likely to revive the ailing subject. It was unfair to the students when the members of Faculty failed to give promised lectures or showed such slight interest as to neglect to mark examination papers. He, Sinclair, was going to resign, and thought the school might as well close.

Dr. Lindsay seconded Dr. Sinclair's motion to close the school.

At this decisive moment somebody found "that the hour was late", and that several members of the Faculty were absent, so the meeting adjourned.

Two weeks later they met again. The atmosphere had cleared in the interval and it was decided with some opposition to carry on.

The next meeting on April 24, 1885, was a momentous one as will appear later. Mr. F. W. Goodwin had passed in all subjects with an average of 80% and "was declared entitled to receive his Degree." Though there was no competition he was awarded the Faculty Prize of $10.00.

It may here be remarked that the College which had enjoyed help from Dalhousie for many years in the teaching of its preliminary subjects was always toying with the idea of a closer affiliation. Its own lot was decidedly a hard one and the prospect of sharing the affluence of the University decidedly inviting. Since Dalhousie was still viewed as having sectarian inclinations to the Presbyterian Church the prospect that the College would lose its government grant if union actually took place was a chilling prospect which up to the present had tempered the courtship. In 1885, however, it appeared as though the college was throwing discretion to the winds. Union with Dalhousie must be

achieved. Any sacrifice was contemplated eagerly even the sacrifice of the Provincial Grant. The College would hand over its property, "lock, stock and barrel." On its part, the University was cold to amalgamation but willing to consider affiliation. There was much optimism. The future of the school seemed assured. Then came the Great Row of '85. The Corporation closed its doors and classes stopped. For the time being the matter dropped.

The City Hospital was built on the South Common, Halifax, in response to public demand for an institution to care for the indigent sick. It was a poor building for the money expended on its construction. After a half hearted attempt on the part of the City to conduct it as designed, it died before its usefulness was felt. But public demand did not die, and the Medical Profession of Halifax was eager to establish in this City a School of Medicine. Accordingly, in 1867, the City Hospital revived as the Provincial and City Hospital and soon afterwards became a teaching hospital for the Dalhousie Medical College. Its affairs were conducted by a body known as the Committee of Public Charities composed of representatives of the City and Province.

As a hospital it would be the poorest fulfilment of our modern idea of what that means. In that day, all considered, it was not as bad as the worst nor as good as the best. The building was substantial, but cold in winter and hot in summer. It was heated by fireplaces. The walls were washed in either a faded blue or a bilious yellow. Fumigation was preferred to ventilation. The wards reeked with the oft described pre Listeran odor of "laudable pus." Cleanliness was not a constantly sought virtue. The nurses, male and female, were on the whole of a most indifferent sort. Their inclination to that noble calling was considered of Divine origin rather than through specal ability or training. It was not a profession in that day, neither was it an eagerly sought source of employment. It was frequently resorted to by domestics whose addiction to alcohol had eventually driven them from that source of livelihood within the homes of the people. The male attendants were on an even lower footing, in that chewing tobacco, to reduce the smell of the pus, and for its "disinfecting properties" was added to the alcohol as an almost universal indulgence. Dirt was not regarded with the same horror as today. Further, it must be recalled that only those patients entered the hospital who had such poor homes that they could not there be cared for, or no homes at all. In one word it cared for the poor, and enough of the Mid Victorian indifference to the trials of the "lower classes" remained in Halifax to prevent the vices of slackness and neglect by force of public opinion. As a matter of fact the ruling classes rather prided themselves on the fact that they had provided a hospital as good as this for the poor at all, and certainly with all its defects it was far superior to what had been offered by the old Bridewell on Spring Garden Road.

The immediate hospital precincts were surrounded by a fence and guarded by a bull dog, not to protect the property but to prevent the "eloping" of patients whose submission to treatment had reached a breaking point.

The only bright spot in the hospital was the Medical Staff. For many years, faithfully and according to it lights, it cared for the sick. The service for teaching purposes was a three months one, rotating plan, and permitted teaching of students in the wards by the professors in medicine, surgery and gynaecology during the college session. Careful case records were kept, and with due regard to intelligent conservatism, medical advances were adopted here soon after they became established in larger centres. There seems, however, to

have been a spirit of indifference creeping into the work in the early eighties with a clamor for assistants to undertake the more irksome tasks. The merit of the staff of the hospital was being submerged by the inceasingly poor quality of the other and equally necessary services. Before public opinion forced the issue came the Big Row of '85.

For many years the City, assisted as usual by the Province, conducted a Poor's Asylum at the site of the present City Home. This was destroyed by fire on November 10, 1882, and the City promptly collected the insurance. The Province, however, claimed a share of the insurance comparable to its interest in the institution. This the city refused or at least neglected to pay, and it was an issue between them at the time of the Great Row of '85.

About this time too, the present City Hall on the Grand Parade was building.

Having brought to a point all the forces which were later to affect the peace after the battle, it would seem fitting to consider the battle itself. Viewed from the vantage of over half a century it looks like a small affair—a veritable "tempest in a teapot," but at the time it caused a local stir of terrific proportions and a Province wide effect of some size. In essence this is what happened: The Provincial and City Hospital required a House Surgeon, and two candidates presented themselves. The first was Dr. F. W. Goodwin graduated as the sole product of the Halifax Medical College in 1885, the winner of the Faculty Prize; and the second Dr. A. C. Hawkins graduated the same year from McGill. While the matter of choice was carefully kept in the background it is not hard to see which candidate was the favorite of the Medical Staff or Medical Board, so styled, of the Hospital. In the examination conducted by the Medical Board to test the proficiency of the candidates, Goodwin topped Hawkins by a wide margin, but Hawkins passed the examination. At its next meeting the Committee of Public Charities appointed Dr. A. C. Hawkins to the post. A protest from the Medical Board was met with the reply that this was not regarded as a competitive examination and, since both had passed it, both were eligible, and the choice of the Committee was Dr. Hawkkns. The reply of the Medical Board was resignation to a man. The Committee having taken care of the needs of the patients by appointing City Physicians who were willing to serve and had not previously done so, might have been content to rest the matter. Not so the Medical Board. It published a pamphlet dealing with the incident at length and justifying its action. Public sentiment was aroused and camps established. At the meeting of the House of Assembly a petition against the conduct of affairs at the Provincial and City Hospital apparently signed by every practicing physician in Nova Scotia was tabled. A committee was appointed to investigate the whole situation.

At the Session of the House in 1887, when the Committee reported, it was at once obvious that something had to be done. One member declared that the document should be burned by the public hangman in view of the disclosures it contained. Before the House also was a petition to borrow money by the City of Halifax in order to complete the City Hall. It was then recalled that the City had so far refused to pay the claim of the Province to its share of the fire insurance funds from the Poor's Asylum. A board of arbitration was created, and as a result of its activities it was agreed that: (a) The Province would waive its claim to the Insurance; (b) The Province would authorize the loan to the city to complete the City Hall, (c) The City would surrender to the

Province all its rights of ownership in the Provincial and City Hospital. Insofar as the Hospital was concerned the patients from the city were to enjoy equal rights and privileges with those from other parts of the Province. To Commemorate Queen Victoria's Jubilee the House renamed the institution, The Victoria General Hospital.

Almost at once the Government set in motion plans to reorganize and enlarge the Institution. Soon a training School for nurses was established and the hospital placed on a progressive basis which has continued without interruption through the years.

But now let us return to the Medical College and see how it weathered the storm. As may be readily understood its sympathies were with the Medical Board of the hospital, and it assisted in distributing two hundred copies of the "Statement." It was not long, however, before it was faced with a more serious problem—lack of funds.

An attempt to rent the building met with scant success. The janitor, being willing, remained on the premises with free rent and oil, and $5.00 a month. A few months later the oil and the $5.00 were removed from the contract.

There was a mortgage on the college property and foreclosure was now threatened. Each member of the corporation found himself liable. The idea of selling the building was hopefully entertained but it was found that while the corporation had full power to sell the College building for the benefit of the College, there was nothing to permit them to do so for the benefit of themselves. By August, 1887, the financial situation was acute but with the promise of greater and better hospital facilities for teaching it was decided to re-open the school. It was also decided after long debate to avoid foreclosure of the mortgage by paying $120.00 owing, each of the ten members of the corporation to contribute $12.00. The Registrar collected this money" with difficulty" and that immdiate source of anxiety passed. Later when the College was "in funds" the subscription was refunded in each case.

The decision to re-open the school soon had practical results. The building on College Street had been vacated by all but the Dalhousie janitor who had temporary quarters there. His occupancy terminated with precipitation when in anticipation of opening classes a subject was placed in the dissecting room. However, the old janitor, G. P. Skelly was "willing to go in at once and occupy with the understanding that no salary was payable until the lectures began. As it was somewhat risky to have the building unoccupied at night and as probably no one could be got to do the work better he (the secretary) would advise the reappointment of the old janitor. On his behalf a temperance pledge certificate was submitted signed by Rev. Father Briggs." Skelly was reinstated accordingly.

On October 27, 1887, the formal opening took place of the 19th Session of the College and Dr. A. P. Reid addressed the student body, four in number. The Senate of Dalhousie had decided to request the Governors to organize a Faculty of Medicine and it was proposed to the Corporation that they have their list of professors prepared in anticipation of such event. This they did with regard to the preparatory subjects. But as a coy maiden continually advances and retreats when flirting with her ardent swain, so did the College deal with the University. At the moment when the couple were at the altar the bride-to-be fled.

As usual money was the deterring factor. The medical college, in spite of its brave resolutions, was eager to retain the Provincial Government Grant of $800.00 per annum at any cost. In order to secure this the school and its conduct must be acceptable to the other colleges in the Province and to Mount Allison University. They were accordingly circularized as to the proposed affiliation and it was not long before Acadia voiced its unqualified disapproval. On December 7, 1888, the minutes record: "The fact that even one of the Colleges objected to a grant under present circumstances made it necessary to decide at once what was to be done. If Dalhousie could furnish assistance at least equivalent to the amount of the grant, then the latter might be disregarded and it would be best to go in for still closer union with that University, but on the other hand if Dalhousie were not in a position to assist at present, the only course was to sever the affilition, as by the objection of Acadia, it deprived the Medical School of the Government Grant." On March 7, 1889, it was reported "that in the event of separation from Dalhousie the Government Grant would be renewed, and that Dalhousie was not in a position at present to give any financial aid to the Medical College." Accordingly, "after a general expression of regret that such a course was necessitated," it was resolved to sever the affiliation completely.

As a definite expression of the resolve a new Faculty was organized. For purpose of record it follows:

New Teaching Staff

A.P. Reid, M.D., Emeritus Professor of Medicine and Professor of Hygiene

W. B. Slayter, M.D., Professor of Gynaecology.

Edward Farrell, M.D., Professor of Surgery and Clinical Surgery.

J. F. Black, M.D. Professor of Surgery and Clinical Surgery.

John Somers, M.D., Professor of Medicine.

George L. Sinclair, M.D. Professor of Nervous Diseases and Insanity.

D. A. Campbell, M.D., Professor of Clinical Medicine and Therapeutics.

H. M. D. Henry, Professor of Medical Jurisprudence.

A. W. H. Lindsay, Professor of Anatomy.

Arthur Morrow, M.B., C.M., Professor of Physiology.

F. W. Goodwin, M.D., C.M., Professor of Materia Medica.

M. A. Currie, M.D., Professor of Obstetrics and Diseases of Children.

Lecturers.

Lecturer in Opthalmology, Otology, Laryngology; Stephen Dodge, M.D.

Lecturer also in this specialty: G. C. Jones, M.R.C.S., England.

Demonstrator of Anatomy and Lecturer on Histology, Murdoch Chisholm, M.D.

Now, fifty-three years later, Dr. M. A. Curry is the sole survivor, and be it remembered that he was appointed to the Faculty in 1885, before the "Big Row."

So, like all quarrels big and little, its results were of mixed value. For many years these were obscured by personal feelings but today it is possible to evaluate them with some fairness. It was in all probability a good thing for the City that the Provincial and City Hospital passed entirely from its control. Its loss in real property, partly paid for at least by the insurance proceeds it retained, was more than made up by the fact that its citizens enjoyed the services in their midst of a better equipped and more progressive institution than they were ever likely to realize either under their own or joint auspices. In the years since this has become increasingly evident. For the Province the bargain was of less certain value. At the time, however, this was the only hospital in Nova Scotia, and it seemed fitting that the Province should care for its insane and those physically ill as well. Apart from this consideration was the fact that without a good hospital there could not be a good medical school, and a centre for medical education in the Maritime Provinces was a highly desirable thing. Insofar as the Halifax Medical College was concerned there can be little doubt that the results were good. It placed all concerned with that institution on their mettle. The fires of controversy burned out the apathy which was creeping into the school. The final realization that they must stand on their own financial feet inspired increased efforts at organization and development on the part of the Corporation, leading to renewed confidence as the situation improved. The resolution to have a good school led to the bringing in of physicians trained in other schools, and new blood purged out the evils of inbreeding. The service at the Victoria General Hospital improved correspondingly and, to complete the circle, students and patients benefitted greatly thereby. It may be said that had union with Dalhousie been achieved then, that a greater school would have developed. Of this there is no certainty and some doubt. The college required the whip of adversity to drive it onwards rather than protection which breeds lethargy. It was still young and virile. Better times soon followed.

We, in Nova Scotia, owe a great deal to this generation of medical men. They had a high sense of professional duty and of professional dignity. At times, and this was such an occasion, these sensibilities gave rise to quarrels and controversies which in our day seem unnecessary. Perhaps we should not so readily claim this as a virtue. Our senses may be dulled to external stimuli, public sentiment, for example, of which we should be more acutely aware. They sought to fulfil a public duty by carrying on a medical school under difficulties. That they did it at all is surprising; that they did it so well a proud achivement. We should share in their heritage to us with great gratitude.

Case Reports

A Case of Guinea-Worm Invasion

A NATIVE of India was admitted to the Halifax Infirmary in December, 1942 with an abscess on his left leg about three inches above the internal malleolus. This abscess was opened before admission by Dr. J. L. Cook and as predicted by a member of his staff who had been in India, a worm was removed from the abscess. The worm, about twelve inches long, was identified as Dracunculus Medinensis—the Guinea-Worm.

The story of the Guinea-Worm is of considerable interest. This worm measures from ten to forty-eight inches and is one seventeenth of an inch in diameter and in infected subjects is situated just beneath the skin of the legs where it has probably taken about one year to attain full growth. When fully developed, contact with the surface is made in a small blister which ruptures and the worm discharges an enormous number of embryos. The embryos however are only discharged when in contact with water. The barefooted native supplies the proper setting by wading in the water supply where the embryos are swallowed by cyclops—the water flea—to undergo further development.

Infection of the human occurs when infected water enters the stomach.

The hydrochloric acid of the stomach dissolves the cyclops and liberates the guinea-worm embryo, which undergoes further growth in the intestines and by a curious provision of nature is later deposited in the sub-cutaneous tissue of its new host—nearly always in the lower leg from which vantage point ready access to water pools may be expected with a considerable degree of assurance.

The symptoms of Guinea-Worm infestation are not marked. Some degree of itching and burning is experienced before the adult worm makes its contact with the surface. The blister may become infected as it did in the case we are reporting. It is said that breaking the worm in injudicious attempts, common in the East, to remove it by winding it slowly about a small stick, frequently leads to severe cellulitis. Rheumatic pain is described and also fluid in joints when a worm invades a joint cavity.

According to Rogers and Megaw the termination of its visitation in the human host is quietly completed when the worm discharges its embryos, as it then dies and is absorbed. If contact with the surface is not made the worm dies in due course without discharging embryos, but is likely to become calcified and visible in an X-Ray plate. Fortified by this text book story we had our patient's legs X-Rayed and were fortunate in finding a very completely calcified worm twenty to twenty-five inches long in the right lower leg. This rounded out the clinical picture giving us possession of an adult worm removed from one leg and a very striking X-Ray photograph of a calcified worm in the other one.

It would appear that treatment is not very helpful in this condition. Tartar Emetic intravenously has been reported as a treatment likely to kill the adult worms but this is said to be very doubtful. We therefore discharged our patient when his abscess healed.

Only female worms are found in the tissues and references in the literature to the male worm are rather vague but according to one text book it only attains

a length of about two inches and it dies in the intestines of the human host as soon as the female worm is impregnated.

One should note that historically "Dracunculus Medinensis" has some claim to fame as it is reputed to be the "Fiery Serpent" which molested the Children of Israel in the Wilderness.

J. W. MacIntosh, M.D., C.M.

Reference: Tropical Medicine by Rogers and Megaw (Fourth Edition 1942)

Thyrotoxicosis Simulating Heart Disease

A 68 year old gentleman presented himself for examination to one of us (S.T.L.) in October 1942, complaining of shortness of breath, general weakness and loss of energy. His history disclosed that some eight or nine years ago a physician found his heart to beat irregularly; and that in the last three to five years he has been treated with digitalis, but without any benefit.

He was most disturbed with exertional dyspnea which obliged him to give up his activities completely. The dyspnea however, did not become worse in the last year, nor was he ever awakened by dyspnea or cough at night. His ankles were never swollen. Besides the dyspnea he felt the palpitation of his heart extremely unpleasant. Careful questioning revealed further that the patient preferred a cold environment, feeling always hot, that his appetite was very good, and that he had been getting nervous and irritable in the last two or three years. He is unable to state how much weight he lost recently, but he was losing weight gradually in the last three years, notwithstanding his good appetite.

Physical examination revealed the patient to be a rather undernourished 68 year old man, his face showing fugacious blushing, the skin being moist, his hands and feet warm. Striking also was his restlessness and incapacity to keep still. There was no exophthalmos and the thyroid gland did not appear enlarged on palpitation, and there was no bruit over it to be heard. The pupils reacted to light and accommodation, and the fundi revealed a moderate degree of arteriosclerosis. There were no other abnormal findings on examination of head, throat, neck and chest. The apex impulse was visible and palpable as a broad, forceful pulsation in the 5th interspace 1 cm. outside the medioclavicular line. A diffuse systolic depression of the anterior thoracic wall was also noticed. The first heart sound was loud over the apex region and a slight systolic murmur was audible over the pulmonary area. The heart rate was irregular, 136 to 142 per minute. The blood pressure was 120 systolic, and around 76 diastolic.

The abdomen was soft. The liver and spleen could not be felt, and there was no tenderness present.

Fluoroscopic examination revealed the heart only slightly enlarged, with flabby pulsatory movements of the left border. The arch and descending aorta were rather prominent.

The electrocardiogram showed fibrillo-flutter with a rate of 136 per minute. The QRS complexes did not show high voltage, nor was there any axis deviation noticeable. The ST line appeared to be on the isoelectric line (except where it interfered with a descending limb of a f wave). The chest leads CF-2 and CF-4 did not appear abnormal.

The urine was negative. His weight was 120 pounds.

The presence of a tachycardic arrhythmia of a rather long duration, the failure of digitalis to reduce it, and the lack of hypertrophy of the heart and symptoms of manifest congestive heart failure raised the suspicion of a hyperthyroid condition. The history also appeared to strengthen this view.

A trial with a digitalis preparation of well known potency under strict bed rest was first given. Following its inefficiency to reduce the heart rate and to influence the patient's condition, the patient was advised thyroidectomy in case the B.M.R. should prove the presence of thyrotoxicosis. The patient was therefore admitted to the Halifax Infirmary on Nov. 2nd., 1942, and the B.M.R. on Oct. 3rd. proved to be plus 81%. In the meantime the patient had lost some more weight (116 pounds on Nov. 3rd) and appeared to be more nervous and irritable. Seen in consultation (J.V.G.) it was decided to prepare the patient in the usual manner with Lugol's solution and perform a two stage subtotal thyroidectomy. On Nov. 10th., that is seven days later, following treatment Lugol's and high carbohydrate diet, the patient had gained four pounds, and and his B.M.R. fell to plus 34%. On Nov. 13th., removal of the right lobe of the thyroid was performed by Dr. J. V. Graham, and the iodine ration was continued uninterrupedly until the second stage was performed. Following ablation of the right lobe of the thyroid, the patient showed some signs of toxic crisis in the first few days, he presented hyperpyrexia and extreme weakness, but recovered soon. On Nov. 21st., eight days later, he developed again, fever and malaise from an intercurrent disease. In the afternoon of this day, a sinus tachycardia was noticed. This lasted only a very short time, giving way again to the tachyarrhythmia. Following this observation, it was felt, that it would not be a great hazard in trying to restore the sinus rhythm in this patient by the resorting to use of quinidine or quinine, the more that it was clear that Nature had shown the way to it. The patient was therefore put on quinine. Four days later normal sinus rhythm with a rate of 72 per minute was found to be present, and the patient's rhythm has been regular since. Quinine was reduced to gr.III once a day for six weeks. The second stage of the operation was uneventful, and the patient left the hospital six days after it. His B.M.R. was now plus 6% and his weight 140 pounds, that is an increase of 24 pounds in this short interval of time.

Histological examination of the tissue was as following: "The gross and histological appearances have the character more of a diffuse than a nodular goitre with hyperplasia (exophtalmic rather than a toxic adenomatous goitre). I can detect no evidence of malignancy" (signed R. P. Smith, M.D. D.P.H.)

Discussion: It is generally believed that in elderly people cardiac symptoms may be so conspicuous as to mask a concomitant hyperthyroidism. The diagnosis of Thyrotoxicosis is then made only if one thinks of it. As to the etiology of heart disease in thyrotoxicosis most authors agree that thyrotoxicosis *per se* even associated with auricular fibrillation of long duration, does not cause the heart to fail. The picture of a "Thyro-cardiac" disease is displayed only where there is an already damaged heart as an underlying condition, such as rheumatic heart disease, hypertension or coronary sclerosis. Cardiac failure then is produced or its manifestation is aggravated by the advent of thryotoxicosis. Evidently the acceleration of the circulation by increasing the venous return to the heart is one of the most important factors in augmenting the work of the heart. An impaired myocardium will therefore not be able to overcome this increase in work and strain of all the cardiac chambers, and fail.

Of the other factors which intervene in the production of cardiac failure, we should like to mention the increase in the cardiac output partly as an adaptation to the inhanced metabolic rate, and partly caused by the great vasodilation in the thyroid gland (Boas).

The dyspenea on exertion, as manifested by our patient, in our opinion, is not to be considered as a sign of congestive heart failure, stricto sensu.

Only where the heart is hypertrophied and enlarged dyspnea should be considered a symptom of congestive heart failure. Dyspnea is seen not only in pulmonary disease or bronchial asthma, but also in cases of paraxysmal tachycardia or tachyarrhythmia, in which latter cases dyspnea is more the expression of an increase in the venus return to the heart due to the acceleration of the circulation and increased minute volume of blood than a sign of muscular failure. It is also known that younger individuals do not accuse symptoms of dyspnea if the heart has been normal; while in elderly patients cardiac failure is likely to develop. The fact that our patient, affected with a tachyarrthymuria of long duration, did not show any other signs of manifest cardiac failure, lead to the view that his myocardium was quite well functioning, and that the outcome of surgical intervention should be a satisfactory one.

But even with an impaired myocardium we should not have hesitated to recommend the surgical intervention. Blumgart, Levine and Berlin in 1933 proposed total ablation of the normal thyroid for relief of heart disease, an operation which was well tolerated by patients with congestive heart failure.

Another interesting point in this patient was that concerned with the question whether or not quinidine should be given to restore normal sinus rhythm. An authority like Hursthal, whose views are accepted by the great majority of the authors, excludes from quinidine-theraphy patients with a history of long standing fibrillation. We would not have dared to give the patient quinidine; but the observation mentioned, namely the occasional appearance of a sinus tachycardia during the onset of hyperpyrexia, made us feel that a trial to restore normal rhythm should be given. We preferred quinine, which was given in a larger amount for four days, and as soon as a normal rhythm was detected (four days later), quinine was reduced to gr. 111 daily and kept on for some six weeks. The rhythm has remained regular since, and the patient has no complaints whatsoever referrable to a cardio-vascular condition.

Dr. S. T. Laufer, Dr. J. V. Graham

Dalhousie Medical and Dental Library

The Dalhousie Medical and Dental Library invites all graduates in medicine or dentistry to visit the library and to make full use of its facilities and services. Those who cannot come in to read, may write or telephone for reference material to be found or selected by the librarian and sent by mail. The period of loans is one week in the city and two weeks out of the city, and the time can be extended by request. Borrowers are asked only to assume responsibility for the care and prompt return of books and journals, and stamps are usually remitted by the borrower to cover the very low rate of postage which is the privilege of public and free scientific libraries.

For the convenience of readers we are providing a list of the most commonly used periodicals. Borrowers writing or telephoning for articles should copy the reference exactly so that they may be able to give the name of the author, volume, number and date of article, and in the case of a book, the edition.

The following books have been added to the Medical Library during the past year:

MEDICAL SCIENCES:

R. M. Allen	The microscope	1940
J. D. Corrington	Working with the microscope	1941
E. F. Burton & W. H. Kohl	The electron microscope	1942
S. H. Gage	The microscope	1941
C. D. Darlington & L. F. LaCour	Handling of chromosomes	1942
G. Bourne, ed.	Cytology and cell physiology	1942
W. R. Amberson & D. C. Smith	Outline of physiology	1939
E. M. Greisheimer	Physiology and anatomy, 4th ed.	1940
L. V. Heilbrunn	Outline of general physiology	1938
H. H. Dukes	Physiology of domestic animals, 5th ed.	1942
L. J. Henderson	Blood: a study in general physiology	1928
E. J. Van Liere	Anoxia: its effect on the body	1942
I. G. Macy	Nutrition and chemical growth in children	1942
M. R. Everett	Medical biochemistry	1942
E. S. West	Physical chemistry for students	1942
M. V. Thorpe	Biochemistry for medical students, 2d ed.	1941
M. Stephenson	Bacterial metabolism	1940
Paul Weiss	Principles of development	1942
F. Tilney & Riley	The brain from ape to man, 2 vols.	1928
L. H. Snyder	Medical genetics	1941
F. B. Mallory	Pathological technique	1938

MEDICINE and THERAPEUTICS:

H. E. Collier	Outlines of industrial medical practice	1941
H. A. Howe & D. Bodian	Neural mechanisms in poliomyelitis	1942
L. J. Harris	Brucellosis	1941
Jellinek, E. M., ed.	Alcohol addiction and chronic alcoholism	1942
Johns Hopkins Hospital	Formulary and handbook	1942
Kenny, E.	Treatment of infantile paralysis in the acute stage	1941
T. Lewis	Vascular diseases of the limbs	1936
R. A. Kilduffe & M. DeBakey	The Blood bank and technique and therapeutics of transfusion	1942
J. B. Mennell	Physical treatment by movement, manipulation and massage, 4th ed.	1940
F. W. Price	Text book of practice of medicine, 6th ed.	1941
S. Ruff & H. Strughold	Compendium of aviation medicine	1942

SURGERY:

E. A. Codman	The shoulder	1934
R. E. Farr	Practical local anesthesia, 2d ed.	1929
J. S. Lundy	Clinical anesthesia	1942
R. Woolmer	Anaesthetics afloat	1942
N. A. Gillespie	Endotracheal anaesthesia	1941
J. G. Wright	Veterinary anaesthesia	1942
R. Maingot	Technique of gastric operations	1941
	Surgical practice of the Lahey clinic	1942
J. C. Mottram	Problem of tumours	1941
	Yearbook of industrial and orthopedic surgery	1941
W. H. Ogilvie	War primer on wound infection	1940
G. F. Rowbotham	Acute injuries of the head	1942
A. B. Wallace	Treatment of burns	1941
Lois Oakes	Illustrations of bandaging and first aid, 2d ed.	1942
A. Thorndike	Manual of bandaging, strapping and splinting	1941

GYNAECOLOGY and OBSTETRICS:

A. H. Curtis	Text book of gynecology, 4th ed.	1942
G. W. Corner	Hormones in human reproduction	1942
C. H. Davis	Gynecology and Obstetrics, 3 vols. and index; looseleaf	
J. H. Hess & E. C. Lundeen	The premature infant	1941
C. G. Hartman	Time of ovulation in women	1936
S. R. Meaker	Human sterility	1934
Emil Novak	Gynaecology and female endocrinology	1941
J. W. Kennedy & H. D. Campbell	Vaginal hysterectomy	1942
H. J. Stander	Williams' Obstetrics, 8th ed.	1941

NEUROLOGY and PSYCHIATRY:

J. N. Brawner	Mind and its disorders	1942
C. Bradley	Schizophrenia in childhood	1941
B. Crothers	Pediatrician in search of mental hygiene	1937
W. R. Brain	Diseases of the nervous system, 2d ed.	1940
S. Cobb	Foundations of neuropsychiatry	?
H. F. Dunbar	Emotions and bodily changes, 2d ed.	1939
K. Goldstein	The organism	1939
	After effects of brain injuries in war	1942
L. S. Kubie	Practical aspects of psychoanalysis	1936
W. J. Krieg	Functional neuroanatomy	1942
W. G. Lennox	Science and seizures	1941
M. Levine	Psychotherapy in medical practice	1942
T. A. Ross	Common neuroses, 2d ed.	1941
J. S. Plant	Personality and the cultural pattern	1937
W. Penfield & T. C. Erickson	Epilepsy and cerebral localization	1941
J. F. Culbert	The visiting teacher at work	1930
M. B. Sayles	Child guidance cases	1937
	The problem child in school	?
	The problem child at home	?
J. C. White & R. Smithwick	Autonomic nervous system, 2d ed.	1941
E. A. Strecker	Fundamentals of psychiatry	1942
F. B. Strain	Sex guidance in family life education	1942

GENERAL:

L. F. Barker	Time and the physician	1942
A. Carrel	Man, the unknown	1939
H. B. Clapesattle	The Doctors Mayo	1941
R. L. Duffus & L. E. Holt	L. Emmett Holt: Pioneer of a children's century	1940
J. M. T. Finney	A Surgeon's life	1940
J. E. Goldthwait	Body mechanics in health and disease	1941
H. S. Jennings and others	Scientific aspects of the race problem	1941
R. Lampson	Death loses a pair of wings	1939
A. Scheinfeld	You and heredity	1939
G. Rosen	Reception in Beaumont's discovery in Europe	1942
Hugh Young	A Surgeon's autobiography	1940
H. Zinsser	Rats, lice and history	1940

SPECIALTIES:

K. F. Maxcy, ed.	Papers of Wade Hampton Frost	1941
C. H. May & C. A. Perera	Manual of diseases of the eye, 17th ed.	1941
J. E. Moore	Modern treatment of syphilis, 2d ed.	1941

REFERENCE WORKS:

Hal Downey, ed.	Handbook of hematology, 4 vols.	1938
E. P. Jordan,ed	Standard nomenclature, 3d ed.	1942
L. De Vries	French-English Science dictionary	1940
National Research Council	Handbook of Scientific and technical societies, 4th ed.	1942

In the Dental library the following are recent accessions of general interest:

M. J. Adler	How to read a book	1940
Wm. Bierman	Medical applications of the short wave current, 2d ed.	1942
V. P. Blair and others	Cancer of the face and mouth	1941
J. C. Drummond & A. Wilbraham	The Englishman's food: a history of five centuries of English diet	1941
E. S. Gordon & E. L. Sevringhous	Vitamin therapy in general practice	1940
R. H. Ivy and others	Manual of standard practice of plastic and maxillofacial surgery	1942
D. B. Parker	Synopsis of traumatic injuries of face and jaws	1942
C. J. Singer	Short history of science	1941
W. W. Spink	Sulfanilamide and related compounds	1941
Sir D'Arcy Thompson	On growth and form, new ed.	1942
American Association for advancement of science	Fluorine and dental health	1942

List of the more important periodicals published in English and regularly received in the Library, 1943:

American Heart journal.
American journal of Anatomy.
American journal of clinical pathology.
American journal of digestive diseases.
American journal of diseases of children.
American journal of hygiene.
American journal of obstetrics and gynecology.
American journal of ophthalmology.
American journal of pathology.
American journal of physiology.
American journal of psychiatry.
American journal of public health.
American journal of roentgenology and radium therapy.
American journal of surgery.

American journal of the medical sciences.
American review of tuberculosis.
Anesthesia and analgesia (Current researches).
Anatomical record.
Annals of internal medicine.
Annals of otology, rhinology and laryngology.
Annals of surgery.
Archives of biochemistry.
Archives of dermatology and syphilology.
Archives of internal medicine.
Archives of neurology and psychiatry.
Archives of ophthalmology.
Archives of otolaryngology.
Archives of pathology.
Archives of surgery.
Bacteriological reviews.
Biochemical journal.
Brain.
British chemical and physiological abstracts.
British heart journal.
British journal of dermatology and syphilis.
British journal of experimental pathology.
British journal of medical psychology.
British journal of ophthalmology.
British journal of surgery.
British journal of tuberculosis.
British medical journal.
Bulletin of the Academy of Medicine, Toronto.
Bulletin of the American college of surgeons.
Bulletin of the American Society for the control of cancer.
Bulletin of the Johns Hopkins Hospital.
Bulletin of the New York Academy of medicine.
Bulletin of war medicine.
Canadian medical association journal.
Canadian public health journal.
Child development.
Child development abstracts and bibliography.
Monographs of Society for Research in child development.
Clinics.
Cleveland clinic quarterly.
Clinical journal.
Diseases of the chest.
Diseases of the nervous system.
Edinburgh medical journal.
Endocrinology.
Growth.
Human biology.
Human fertility.
Industrial and engineering chemistry.
International journal of psychoanalysis.
Journal of allergy.
Journal of anatomy.
Journal of bacteriology.
Journal of biological chemistry.
Journal of bone and joint surgery.
Journal of clinical endocrinology.
Journal of clinical investigation.
Journal of cellular and comparative physiology.
Journal of comparative neurology.
Journal of endocrinology.
Journal of experimental medicine.
Journal of general physiology.
Journal of hygiene.
Journal of infectious diseases.
Journal of investigative dermatology.
Journal of laboratory and clinical medicine.
Journal of neurophysiology.
Journal of nutrition.
Journal of obstetrics and gynaecology of the British Empire.
Journal of organic chemistry.
Journal of pathology and bacteriology.
Journal of pediatrics.
Journal of pharmacology and experimental therapeutics.
Journal of physiology.
Journal of the American medical association.
Journal of the American Veterinary medical association.
Journal of the association of American medical colleges.
Journal of the Missouri state medical association.
Journal of the National cancer institute.
Journal of the Royal microscopical society.
Journal of the Royal sanitary institute.
Lahey clinic bulletin.
Lancet.
Medical clinics of North America.
Medicine.
Mental hygiene.
Nature.
New England Journal of medicine.
New York State journal of medicine.
Nutrition reviews.
Psychosomatic medicine.
Physiological reviews.
Practitioner.
Proceedings of the Royal Society, series B.
Proceedings of the Royal Society of medicine.
Proceedings of the Society for experimental biology and medicine.
Proceedings of the staff meetings of the Mayo clinic.
Public health (U. K.).
Public health reports (U. S. A.) and reprints.
Psychiatric quarterly.
Quarterly journal of experimental physiology.
Quarterly journal of medicine.
Quarterly journal of microscopical science.
Quarterly journal of pharmacy and pharmacology.
Science.
Southern medical journal.
Surgery.
Surgery, gynecology and obstetrics.
Surgical clinics of North America.
Transactions of the American academy of ophthalmology and otology.
Transactions and studies of the College of Physicians of Philadelphia.
United States naval medical bulletin.
Venereal disease information.
War medicine.

Society Meetings

VALLEY MEDICAL SOCIETY

The semi-annual meeting of the Valley Medical Society was held at the Town Hall, Middleton, on November 12, 1942.

Dr. H. E. Killam presided. Present were Drs. Elliott, Weatherbe, Hiltz, H. G. Grant, Surgeon-Lieutenant Johnson, A. L. Murphy, Cogswell, Eagar, Young, Campbell, Mahaney, Flight-Lieutenant Webster, Bethune, W. A Curry, Messenger, Schaffner, Weir, Rice, Moreash and Kelley.

A letter from Dr. J. V. Graham was read. This letter referred to the list of lectures and clinics available to the Branch Societies through the Dalhousie Refresher Course Committee. The list was passed around at the meeting. It was from this list that the papers for the day had been chosen.

The first paper was given by Dr. P. Weatherbe—"The Acute Abdomen in Children." In this he discussed pyloric stenosis, intussusception and acute appendicitis.

Dr. A. L. Murphy then presented his paper—"Internal Fixation of Fractures." In this he gave briefly the history of the treatment of fractures up to the present time. He spoke of the use of vitallium which he described as being "silent" in the tissues. His paper was complete and of much interest to the meeting.

Dr. W. A. Curry then spoke on "Immersion Foot." This talk was based on a study of approximately 300 cases which had been treated recently in Halifax. Three methods of producing "dry cooling" were used.

1. *Application of ice bags.* The foot was carefully swabbed off with alcohol, sterile pledgets of gauze were placed between the toes and the whole foot in each case was covered with a sterile towel. Ice bags were placed around the foot over the towel and the whole enclosed in an oil silk bag. This was then wrapped in thick layers of cellucotton and enclosed in rubber pillow-cases loosely tied about the calf of the leg. The feet were then elevated on pillows. The ice bags were changed every four hours except in those cases of extreme hyperaemia in which more frequent changing was necessary to result in an average lowering of the temperature of the foot of about six degrees centigrade.

2. *Dry cooling by exposure to a fan.* The feet were exposed and elevated in front of electric fans which drove a continuous blast of air across the traumatized areas. To enhance cooling, the feet were repeatedly sprayed through the fan blades with cold water from a nebulizer.

3. *Dry cooling at room temperature.* Feet elevated and exposed in a cool ward. Skin temperatures were taken with a dermatherm.

Surgeon-Lieutenant Johnson showed some very fine natural coloured pictures which were taken by himself. These pictures showed several cases before, during and after treatment. The efficacy of the treatment was definitely demonstrated by these same pictures.

Following the papers there was a discussion on all three.

On motion the meeting adjourned and dinner was served at the American House.

R. A. Moreash
Secretary-Treasurer
Valley Medical Society

Personal Interest Notes

THE marriage took place on February 5th in Halifax of Miss Grace Elizabeth (Betty) Carten, only daughter of Mr. and Mrs. F. G. Carten and Captain Clarence Lloyd Gosse, R.C.A.M.C., son of Dr. and Mrs. N. H. Gosse, all of Halifax. Immediately after the ceremony a reception was held at the Lord Nelson Hotel. After their honeymoon which was spent in central Canadian cities, Captain Gosse and his bride took up residence in Yarmouth. Before enlisting Dr. Gosse, after graduating from Dalhousie Medical School in 1939, took a post-graduate course in surgery in Cleveland, Ohio.

The marriage took place on January 19th in Halifax of Miss Catherine May Bottomley, daughter of Mr. and Mrs. John T. Bottomley of Halifax and Lieutenant Harold Cecil Read, R.C.A.M.C., son of Rev. and Mrs. W. K. Read of Elmsdale. Dr. Read graduated from the Dalhousie Medical School in January, 1943.

Dr. W. A. MacQuarrie, of Moncton, N.B. who graduated from Dalhousie Medical School in January, 1943, has gone to New Glasgow to be associated in practice with Dr. C. B. Crummey.

We regret to learn that Flt. Lt. (Dr.) C. Carvell Macintosh, who graduated from the Dalhousie Medical School in 1940, is seriously ill in hospital in Saint John.

325 Have Passed Examinations

Dr. J. Fenton Argue, registrar of the Medical Council of Canada, announced on February 18th, that 325 candidates passed the examinations held by the council at various centres throughout Canada last month.

The candidates now may become registered to practise in any province in Canada without further examination upon paying the necessary fee and meeting the other provincial requirements.

The graduates are:

Halifax Centre

Prince Edward Island: Norbert C. Grant, Montague; Blois C. LePage, North Rustico.

Nova Scotia: David B. Archibald, Sydney Mines; C. Miller Ballem, New Glasgow; Harold M. Spiro, New Glasgow; Lynn E. Bashow, Liverpool; G. Murray Smith, Liverpool; Stuart D. Dunn, Pictou; Leo Green, Halifax; Edward R. Harrigan, Sydney; Hugh M. Henderson, H. Ian MacGregor, Ian M. MacLeod, Richard J. F. Murphy, John F. L. Woodbury, Halifax; J. Douglas McFetridge, Middle Musquodoboit; Charlie N. Morehouse, Centreville; J. Kemp Morrison, St. Peter's; N. Alastair Morrison, New Waterford; Harold C. Read, Elmsdale; James H. West, Wolfville; J. Ralston Ryan, Springhill; William A. Murray, Hillsboro.

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Obituary

THE death occurred in New York on January 31st of Dr. John Frank Fraser, who had been seriously ill, following an operation, for the past three weeks. Dr. Fraser was born at West River Station, Pictou County, seventy-six years ago, the oldest of the family of the late Mr. and Mrs. Colin Fraser. He graduated from Bellevue Medical College in 1892, after spending two years, 1887-9 at the Halifax Medical College, and for a few years practised in Glace Bay and Port Morien. Forty-six years ago he moved to NewYork, where he had practised his profession up to the time of his last illness. For many years he had been a leading dermatologist and in that capacity was for a long time on the staff of Columbia University Medical Postgraduate Collete. He served in the United States army during the last war with the rank of major. He is survived by his wife, one son, Colin, who joined the R.C.A.F. early in the war and for the past year has been a pilot officer with the R.A.F. in India; two daughters, two sisters, and one brother Martin L. Fraser of New Glasgow. One brother, Dr. Alexander Fraser died in New York about four years ago.

The BULLETIN extends sympathy to Dr. W. A. Hewat of Lunenburg on the death of his father, William R. C. Hewat, which occurred at Halifax on February 4th; and to Dr. J. J. MacRitchie of Halifax on the death of his brother, Simon Hugh MacRitchie which occurred at Englishtown, C.B. on January 30th.