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CONTENTS

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WESTERN CANADA MEDICAL JOURNAL

VOL. I. MAY, 1907 No. 5

ORIGINAL COMMUNICATIONS.

RAYNAUD'S DISEASE OF ORGANIC NATURE

BY ROBERT A. FLEMING, M.A; M.D.; F.R.C.P.E.

Lecturer in Practice of Medicine, Assistant Physician Royal Infirmary, Edinburgh.

Dr. Gibson has placed in my hands notes of two cases of Raynaud's disease which are unquestionably of organic nature, in contradistinction to the functional cases of which he himself has written. Although now associated with him as his junior colleague my connection with his wards is so recent that I had little opportunity of becoming personally familiar with the first of these cases, while the second was more under my notice; My work in connection with this paper consists chiefly in examining the spinal cord, nerves and muscles of Case 1, and recording my observations. I am in full accord with Dr. Gibson in believing that the vascular changes mainly limited to the affected limbs and the development of a parenchymatous neuritis constitute the pathological basis of the disease in these cases. The arterial changes are chiefly endarteritis obliterans and in connection with such changes the hyaline degeneration in the middle coat of the arteries in the spinal cord has a special significance, as it is so often met with in toxic neuritis.

In Case 1 there was more local asphyxia than local syncope, and in Case 2 this also holds true. Unfortunately we did not get a *Section* in the second case, but in the first the changes in the veins are interesting. A spasm of local veins has been held to be the cause of these cases of Raynaud's disease in which local asphyxia is alone present and without any preceding pallor. In Case 1 both local arteries and veins are affected and there is a neuritis, which, inasmuch as it is limited to certain fibres in the funiculi, is thereby very suggestive. May it not be that, as I suggested elsewhere,* the finer fibres are in part at least vaso-motor in function, and if so is it not these fibres which in our case bear the brunt of the affection? Is it not also possible that these same vaso-motor fibres may be the cause of functional cases? In the affected nerves of Case 1 the fine fibres have specially suffered although the larger ones have not escaped. Without further remark I pass next to the clinical accounts of the two cases.

Case 1.—R. H., age 63, a seaman, was admitted to Dr. Gibson's Wards, Royal Infirmary, Edinburgh, on 12th June, 1906, complaining of weakness in legs and difficulty in walking.

Family History.—He knows nothing about his family, and is ignorant as to what three of his four children died of. His wife had no miscarriages.

Personal History.—He is a strong-looking man; home comfortable; has been off work since December, 1905, with his present illness. Prior to that he worked before the mast on a ship sailing between Glasgow and America. He had hard work and was much exposed to all weathers. Food good and regular. Drank occasionally to excess but never continuously. Has had dysentry many years before, when in India; has had chronic rheumatism and latterly chronic bronchitis. No history of syphilis. Over 40 years ago when in Greenland his feet were so badly frostbitten that he was quite unable to walk. His treatment consisted in the application of boiling urine! He recovered but has

*See Paper on Peripheral Neuritis in *Brain*—Spring Number, 1897.

had several attacks, the last one four years ago, which left his legs numb, but they have since recovered. He has had no accidents.

Present Illness began in November 1905, when patient noticed his feet were getting weak, but he managed to continue at sea till December and the weakness has been steadily, although gradually, increasing.

Dr. Gibson makes the following note of the Raynaud phenomena:—

"*Hartmann*, on his first admission to my Ward, was a healthy-looking man with a high complexion. His nose had a purplish hue and his cheeks were of a deep crimson; both nose and cheeks had many venous stigmata. His ears were of a dark purple colour. His hands and feet showed well marked Raynaud phenomena. Sometimes they were perfectly cold and pale, at other times they were deeply congested and of a bluish-black tint. In this case there were no changes to be made out in the superficial veins."

Nervous System.—Patient has difficulty in walking. He uses two sticks, does not raise his feet off the ground but sweeps them round with each step.

Reflexes.—The tendon reflexes are almost absent in legs but normal in the arms. The knee jerk is not easily obtained but on tapping the patella tendon the quadriceps muscle contracts very slightly. There is no Achilles jerk. The left leg shows more complete abolition of knee jerk than the right. The superficial and organic reflexes are unaffected.

The muscular power is good with the exception of the legs. In drawing up the knees he has to help the action with his hands and the left leg is more powerless than the right. Muscular sense and co-ordination are unaffected. The electrical reactions show diminished irritability to both Galvanic and Farradic currents: No polar changes were noted at any period in his illness.

Sensory Changes.—Sense impressions, heat and cold, touch and pain are unaffected. He has a feeling of stiffness in the ankles and knees, otherwise there is nothing to note.

Sight is normal; no changes in fundus oculi; pupil reacts to light and accommodation. Ocular movements unaffected.

He perspires freely.

Locomotory System.—Knee and ankle joints are stiff from chronic rheumatism and left is worse than right. Muscles are soft and wasted, especially above and below knee joints. Gait has been already described.

Circulatory System.—Heart is of normal size. Sounds in all areas are closed and there are no murmurs.

Radial arteries do not feel abnormally thickened or pressure high. Pulse is regular.

Respiratory System.—Patient is suffering from bronchitis with much paroxysmal cough and muco-purulent sputum. He has evidence of old and apparently quiescent tuberculosis at both apexes.

Haemapoietic System.—He has a very slight leucocytosis (11,400 per c.m.) otherwise no abnormality.

Urinary System.—There is some frequency of micturition and the urine is slightly alkaline.

Progress of Case—By July 19th, 1906, patient was quite unable to walk, and could not bend legs at knee joint without assistance. The thigh muscles were markedly wasted especially on the right side and some fibrillary twitching was noted. August 20th.—Patient got a chill and as a result his bronchitis became gradually worse till his death, due to a septic catarrhal pneumonia on October 22nd.

Post Mortem Report—Abstract from Dr. Shennan's Report.

Slight emaciation; musculature (as a whole) good.

Costal cartilages calcified and cartilages of larynx, trachea, and bronchi, even to the medium-sized intrapulmonary bronchi are also calcified.

Heart.—Left ventricle and right auricle dilated. No endocarditis. Some fatty changes in myocardium. Coronary arteries show early atheroma and much more advanced atheroma in aorta.

Lungs.—Left. Some evidence of old tubercular disease at apex of upper lobe. Bronchi full of thin muco-purulent

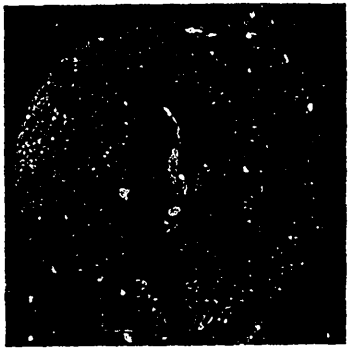

FIG. I.

FIG. II.

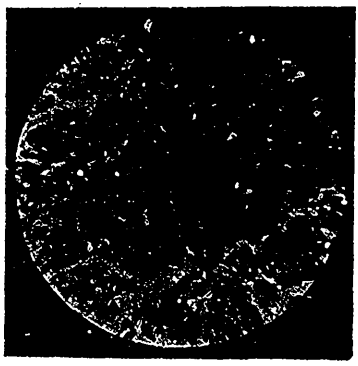

FIG. III.

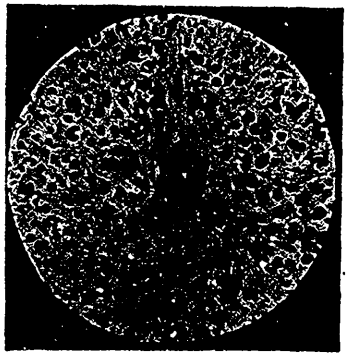

FIG. IV.

Raynaud's Disease—R. A. Fleming.

material and there is extensive broncho-pneumonia, especially in lower lobe.

Right. Some recent pleurisy over lower lobe, and bronchi show similar changes to those in left lung.

Liver.—Cloudy swelling.

Spleen.—Pale, soft and septic, with numerous hemorrhages.

Kidneys.—Increase of perinephric fat. Tubules in deep cortex are swollen and show some fatty changes. Capsules do not strip freely. There are slight interstitial changes with atrophy of kidney substance.

I examined the spinal cord and the sciatics, the anterior and posterior tibial nerves from both sides, the anterior and posterior tibial arteries and bits of the calf muscles.

The most noticeable changes are the following:—

Spinal Cord.—The arteries show extensive hyaline changes, not limited to any special vessel or segment of the cord. The two photographs, Fig. 1 and 2, demonstrate the extent of this hyaline change fairly well. Fig 1 is a fairly large artery in the first cervical segment, close to posterior commisure and in the postero-internal column. Fig. 2 is a long stretch of a smaller artery running right across the postero-internal and external columns near their middle in the 7th cervical segment.

There are few definite cell changes. The multipolar cells show some early chromatolysis, but there is no recognisable alteration in the cells of the intermedio-lateral tract.

The Nerves.—The anterior and posterior tibial nerves show a definite degree of parenchymatous neuritis. The neuritis is limited and even in the most markedly affected funiculi many nerve fibres are apparently normal. Fig. 3 shows a hemmorrhagic effusion round one of the smaller intra-funicular arteries. It is in the right posterior tibial nerve and is in my opinion a bit of corroborative evidence in favour of the existence of parenchymatous neuritis, with which such hemorrhages are often associated.

The arteries in the nerve bundles as well as those which are extra-funicular show most advanced changes. Fig. 4

shows an artery of small size inside a funiculus of the left anterior tibial nerve. The great swelling of the middle coat is apparent. Fig. 5 shows the changes (endarteritis) in the arteries outside the funiculi of the right anterior tibial nerve and Fig. 6 is the right, and Fig. 7 the left anterior tibial arteries showing marked endarteritis obliterans with calcareous changes.

It will be noted that the thickening is not limited to the arteries alone but also involves the veins and this local venous sclerosis is a feature of this case. The calf muscles show degenerative changes with loss of striation and slight proliferation of the sarcolemma nuclei.

Case 2.—J. W., age 48, draper, a tall, well-built, but thin man, was admitted to Dr. G. A. Gibson's Wards, Royal Infirmary, Edinburgh, March 24th, 1905.

Complaint.—Pain and swelling in hands and feet and coldness of extremities.

Family History.—Father died of heart disease, mother died of phthisis, one brother died of pleurisy, and a brother and a sister alive and well.

Three children alive and well. No miscarriages.

Personal History.—Drinks very little alcohol, has always had plenty of good food, has a comfortable home, but at work in the shop is exposed to cold draughts. No previous illness or accidents. One and a half years ago present illness began. He noticed his hands becoming blue soon after he rose in the morning, the r colour being quite normal at first. Some months later he further noticed that his fingers were becoming numb and this has persisted ever since. In the summer of 1904 the hands and feet began to swell during the day, the swelling passing off at night. The stage of pallor was never marked, the blue stage being the chief feature, and fingers, toes, nose and ears all suffer. Good deal of painful tingling experienced.

Fingers.—Hands are very blue and on pressure a dead white mark is left behind and which persists for some time. The skin of the palms is thickened and sodden although there is no excessive prespiration. There is some tendency to Dupuytren's contraction.

FIG. V.

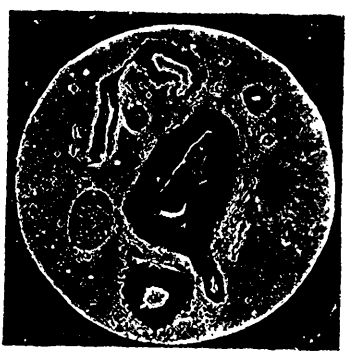

FIG VI.

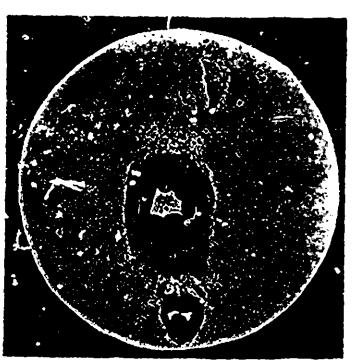

FIG. VII.

Raynaud's Disease--R. A. Fleming.

Feet. Swollen and oedematous but not somarkedly blue. Face and especially nose and ears are blue.

Gait. Typical by high-steppage and Romberg's phenomenon is present, although coordination otherwise is perfect.

Reflexes.—Knee jerks almost imperceptible. Skin reflexes very inactive but present, except plantar which are absent.

Sensory Changes.—Tingling and numbness in fingers but little tingling in feet, there is however a feeling described by the patient as painful and resembling standing with bare feet on a cold stone floor.

Sensibility to touch is unimpared, except over the great toes and to less extent other toes. Sensibility to pain is unimpaired, excepting over same regions, but it is markedly delayed over a wider area and so also is sensibility to heat and cold, which is impaired slightly up to the knees. Muscular sense unaffected.

Circulatory System.—Heart is somewhat dilated, the cardiac dulness extending an inch beyond normal limits, both to right and left of sternum at 4th space, and there is a systolic murmur in the mitral area with pulsation due to the right ventricle in the epigastrium. Arteries are thickened, especially temporals. Maximum blood pressure was 135 m.m. of mercury. Pulse regular in rate and rhythm. Patient suffers from breathlessness on exertion and dizziness in mornings.

Alimentary System.—There is nothing to note, except the liver dulness, which extends an inch below the costal margin in mid-clavicular line and the presence of a limited ascitic effusion in the peritoneal sac.

Haemapoietic System.—The spleen is slightly enlarged and can be palpated, although with difficulty. There is nothing abnormal in the blood count, in percentage of haemaglobin or relative numbers of leucocytes.

Respiratory System.—Few moist rales at both bases.

Urinary System.—The urine which was somewhat scanty during the early part of the patient's stay in the hospital increased to a normal amount before he left in June. There was a trace of albumen.

Progress while in Ward.—The oedema and enlargement of liver and spleen disappeared entirely and the cyanosis was less marked, but on the other hand his gait remained the same and he left the hospital on June 30th without any improvement in the Raynaud phenomena.

Since leaving the hospital the patient did not improve and Dr. Gibson, who saw him with Dr. Menzies, his family doctor, reports that while the oedema had reappeared, possibly in great measure due to his cardiac dilatation, he had much more pain in hands and feet and more definite evidence of the development of a neuritis in the nerves of the affected limbs. Dr. Gibson noted that there was marked dropped-foot, feebleness of all the muscles of the arms and legs and loss of tendon reflexes. The final stage was reached when the patient became the victim of cardiac failure, with general anasarca, ascites and hydrothorax and soon succumbed.

There was no gangrene in Case 1 and therefore the vascular and nerve changes cannot be referred to a secondary cause. Whether Raynaud would have accepted any cases with neuritis has been many times discussed. There is no satisfactory reason for separating such cases and it seems highly probable that neuritis, if not extremely definite may be missed by the worker who is not experienced in interpreting nerve sections unless some method such as the Marchi is used.

The nerves were fixed in formaline and Muller's fluid cut in paraffin and celloidin and stained by haematoxylin and benzo-purpurin and other reagent.

The cord sections were cut in paraffin and stained for nerve cells as well as for nerve fibres and vessels. Toluidin blue and polychrome blue and eosin were used for the nerve cells.

I am indebted, as already indicated, to Dr. Gibson for permission to publish these cases, and also to the resident physicians, whose clinical records of the cases I have used. Dr. Dalmahoy Allan is responsible for the notes of Case 1 and Dr. R. W. Johnstone for Case 2.

THE EFFFCTS OF SUNLIGHT UPON WHITE MEN.

(A Reply to Rev. E. C. Heustes,(

BY A. G. WELSFORD, M.D.; F.R.C.S.; D.P.H.

OF ROME, ITALY.

In the February number of this journal an article was published by the Rev. C. H. Heustis, which was written to warn us against the risk which we run from the presence of the actinic rays when we freely expose our bodies to sunshine. The writer attributes the development of neurasthenia and "uric acid conditions" to the effect of these rays, which after a primary stimulation exhaust the nervous energy of the body. In accepting Mr. Heustis' invitation to criticize his paper, I propose to omit consideration of the diseases included under the indefinite title, "uric acid conditions." The consideration of this group would lead us into endless discussion, as this new cult of uric acid, notwithstanding the number of its votaries, rests upon no certain and unchallenged basis of pathology. For the purpose of our argument it is sufficient to confine ourselves to the relation which exists between sunshine and neurasthenia.

Mr. Heustis, noting the prevalence of neurasthenic conditions in Western Canada, and of the difficulty, somewhat similar to that which exists in semitropical countries, which many individuals coming from the East find in becoming acclimatized, suggests that sunshine is in both cases the principal cause, and asks this question, "If white men were not able to live in the sunny lands of the South, might they not be forced to abandon the equally sunny lands of the North?" The question is important, because if the answer is in the affirmative the future of Canada will be inconsiderable, and the prodigious energy now being manifested by her remarkably active children in the development of her rich territories is doomed to eventual

failure. For this reason, if for no other, it is worth while to consider the question, and to examine the evidence which Mr. Heustis brings forward in support of his thesis. Perhaps we may find that the statement that white men cannot live in the sunny lands of the South is a hasty generalization, and it is possible that there may be other factors beside sunlight which render difficult the acclimatization of white men in warm countries.

Mr. Heustis in his paper uses the term white men rather vaguely, appearing in one part of his paper to limit the term to blond men, whom he contrasts with the little dark Italians. It is true that Dr. Baxter's statistics of the American civil war showed the inferiority of the blond-complexioned man for recruiting purposes, and a general impression prevails that phthisis is especially prevalent among light complexioned persons, but the statistics of other countries such as France, do not altogether bear out this view of the physical inferiority of the blond races and until we have more data we are not in a position to make dogmatic statements with regard to the relative healthiness or viability of the blond and dark varieties of the white races. The French recruiting statistics give no support to the theory of the increased vulnerability of the blond races, and in past times the tall blond dolichocephalic Norman and Kymric types were strong enough to drive out the dark brachy-cephalic Kelts from their homes and to force them to take refuge among the hills and heaths of their native country where their descendants are found to this day. We must have more data before we can accept the statement that the mortality of blond men has been much greater than that of dark whites in the United States, and that the former go down in competition with the latter, or become unproductive and leave no descendants. But whether this be so or not, both blond and dark are white men, i.e.: men who have no dark pigment developed in the deeper cells of the rete Malpighi, and together contrast with negroes and other coloured men. The Aryan and Semetic divisions of the human race consist of white men, and allied with them are the yellow races, whose skins differ

only in tint and contain no more pigment than the former, so that when we discuss the distribution of races in relation to sunshine we must compare the Aryans, Semites and yellow races with the negroes and black people generally.

We are all aware of the destructive effect which sunshine and light has upon protoplasm, and that sunlight is one of the most efficient agents of disinfection. The free circulation of air and admission of sunlight will soon purify an infected room, and doubtless the actinic rays are the active agents in the destruction of the bacteria. If the human body consisted of an undifferentiated mass of naked protoplasm, sunlight doubtless would have a very prejuducial effect upon its vitality, but the body of man is built up of bricks, and these cells are differentiated to a very high degree. Each cell lies bathed in the fluid lymph from which it draws its nourishment and into which it casts its waste, and a thick skin protects the whole from injury. Before the destructive actinic rays can reach the protoplasm of the cells which are essential to our life and well-being they have to traverse not only the numerous layers of epithelial cells, but also the dermis which is suffused with red blood. Dr. Finsen has shown that the colour of the blood itself protects the living tissues against the action of the chemical rays, and for this reason in phototherapeutics it is necessary to render the part bloodless before light can act effectively upon the tissues. In addition to these safeguards the lymph which surrounds each living cell would effectively protect it from the action of the actinic rays. Nature therefore provides adequate safeguards against the actinic rays of the sun in the case of the white man, whose skin is devoid of black pigment, which in the black man is an additional safeguard.

We know too little yet of the effects of light rays upon the human organism to be in a position to dogmatise. We are familiar with the effects of light and of the X Ray upon lupus and superficial growths, and we know that even the lymphadenomatous spleen can be reduced under the influence of the latter, and our minds are prepared to accept the evidence, if ever it be brought forward that some of the light rays can penetrate into the recesses of the body

and profoundly affect its metabolism, but no evidence of any kind exists to prove that the actinic rays of the sun can affect even remotely the deeper lying tissues, and what evidence there is certainly tends to prove the contrary.

The action of the actinic rays of the sun is limited to the skin. Exposure to the sun may cause a form of inflammation attended with pigment formation which is known as sunburn or glacier burn, and in the development of freckles or ephilides we have pigment formation without any accompanying inflammation—a true pigment melanosis. Beyond this local action on the skin it will be difficult to point to any other effect which the actinic rays have upon the tissues, and it is not to these rays that we can attribute the beneficial or deleterious effects of sunshine upon the human body.

Mr. Heustis has been misled by the terms sunstroke when he attributes the symptoms of this condition to the effect of heat combined with light. The term sunstroke is often applied to siriasis, an acute disease of limited geographical distribution, which is generally confined to certain lowlying sea-coast districts and villages, and never occurs at a higher altitude than 600 feet. A case of this disease which is probably specific has not occurred in any European country. The term sunstroke is also applied to conditions of heat exhaustion and to sun traumatism, in which heat is the direct and effective cause. In cases of sun traumatism we usually find that the sufferers have been actively engaged in physical labour, dressed in heavy and hot clothes and exposed to the blazing sun, and although it may be impossible to prove that the light has had nothing to do with the development of the symptoms it is equally impossible to prove the positive. In the tropics cases of heat exhaustion as well as many fatal cases with symptoms identical with those of sun traumatism often occur at night, and in the early hours of the morning before sunrise, and such cases are more common on cloudy days when the heat is intense and the hygrometric condition of the atmosphe e diminishes evaporation and the refrigerating processes of the body. We are therefore safe in concluding that heat alone is the efficient cause in all

cases of insolation, other than definite cases of siriasis.

The distribution of the black races in tropical countries appears at first sight to favour Mr. Heustis' contention that in these countries in which the amount of sunshine is always great it is necessary for the inhabitants to possess a black skin to shield themselves from the effects of the hurtful elements of the light. The development of the black pigment of the negro has been attributed to the action of the sun, and the black pigment has been supposed to protect the body by its power of absorbing the heat and other rays of sunshine. Probably the black pigment does exert some protective influence, but it is open to question whether it is altogether advantageous in the tropics to have a black skin. The skin of the white man reflects the greater part of the heat rays while the black skin of the negro absorbs practically the whole. Negroes tolerate heat better than Europeans because hot countries have become their habitat, and by natural selection only those strains have survived that can endure great heat without injury. Europeans on the other hand are attuned to colder climates, and when transplanted to warm regions live under more or less abnormal conditions. It is not so much owing to their black skins that negroes can stand the heat of the tropics with comparative impunity, as it is to their thick skins, and still thicker craniums and obtuse nervous system. As a matter of fact, negroes feel the heat and do not work well when the sun is hot. They want to lie about and bask in the sunshine, and it is an exertion to them to make an effort. It is true that they can work during the heat but they have to be made to work and never do so willingly. The true explanation for the black skin of the negro must be sought for in his ancestry. In those far distant days when our primitive ancestors lived in trees in the recesses of dark and gloomy forests they possessed dark skins covered with black hair to harmonize with their environment, as is the case with our distant cousins who still live in trees under similar conconditions. The possession of a light skin was a handicap in the struggle for existence by rendering its possessor too

conspicuous to his enemies. As man evolved his environment changed, and in course of time it became either immaterial or an advantage to possess a white skin, and the bleached races made their appearance. How, when and where the genesis of the bleached races occurred is lost in the dim mists of history, but we may feel certain that the change was gradual and slow. The development of a light skin occurred pari passu with other developments which rendered the white and yellow races superior to the blacks, and whenever they strove together it was the blacks who were conquered. Throughout the whole world whenever we come upon traces of the aborigines they are found to have black skins, and this is true not only of sunny regions like those of the tropics but of sunless and cloudy lands, of the Northern districts as well as of the Southern. As the superior bleached races invaded the world they either exterminated the black aborigines or drove them to take shelter in less desirable regions. The temperate climates which are most suited to man became the possession of the stronger races, and the blacks were driven to the icy countries of the North or to the hot and unhealthy countries of the South, where their white competitors left them alone to develop and acclimatize themselves to their new conditions.

The reason that the black races are numerous in the tropics is not because the colour of their skins adapts them to living under sunny skies but rather their colour argues a want of race progress, an inferiority to the lighter races who have driven them away from the more desirable places.

The law formulated by Mr. Heustis that the whiteness of a people is in proportion to the cloudiness of the skies under which the people live is by no means true. The black races or their traces are found over the whole surface of the globe, independently of climatic conditions, in cloudy as in sunny lands, and the dark-haired whites are just as numerous in cloudy countries as the blond. Colouration of man is independent of the amount of sunshine he lives in and is dependent upon other causes about which we know nothing.

We now' come to another statement in Mr. Heustis' paper that cannot be accepted. He says that white men have not been able to live permanently in sunny lands, and refers us to Persia, Egypt, Greece and Rome as affording examples of this inability of white men to live in sunny lands. But it is in these very countries in which there is abundant sunshine that white men have lived, built up great empires and led active, energetic, masterful lives for thousands of years. The countries around the Mediterranean are inhabited by white races who are active, enterprising and intelligent, and their ancestors elaborated complex civilisations at a time when the Northern countries of Europe were plunged in the darkness of barbarism. It is in these sunny lands that the white Aryans and Semites have made the longest history, and have given the most convincing proofs of their permanence. The Italian is just as white a man as the Englishman, the Frenchman or the German, and both in colour and general appearance often closely resembles the British. In the streets of the best cities Italians of the middle class are to be seen who look as if they had just come out of an English office. Fair Italians are by no means rare, and the swarthy Italian of the novels who is often enough seen in real life in the country, is made so by sunburn just as an Englishman would be under similar conditions.

The British people have not been unsuccessful colonizers of sunny lands, and the inhabitants of Canada, New Zealand, Australia and South Africa, while they have become modified by their climates, show no sign of deterioration or of becoming extinct, and are children of whom Great Britain is justly proud. Whe ever th climate has favoured the development of man's energy there the white colonist has gone, and has probably thriven best xactly in those countries in which the sun shines with greatest constancy.

When we consider the semi tropical and tropical countries of the world and among them we include India we find climatic conditions pr sent which do not favour the maintenance of a high physical or mental standard,

and in which the white races do not thrive. Great as is the adaptability of the white man to altered conditions he has not been able yet to acclimatise himself to tropical countries, which are now as they have always been the home of the lower races. For this there are many reasons, apart from the constant sunshine which takes a very inconsiderable part in its causation. In these countries the sunshine is accompanied by great heat and dryness of the air. During the racing season which is often in the summer time there is no sunshine but the heat is more intense, and is steamy, moist and relaxing. All tropical residents know well how intensely debilitating the damp heat of the rainy season becomes. Malaria and other parasitic diseases are other potent factors of degeneration, and in many cases alcoholism plays a not inconsiderable part. There are sufficient causes in evidence to account for the deterioration of the white race in tropical countries without attributing it to a hypothetical deleterious influence of the sunlight. If we admit that when long continued and intense, sunshine in the tropics may prove exhausting, a sufficient explanation is afforded by the glare causing a continuous strain upon the eyes, and affords no support to the theory that the actinic rays of the sun deleteriously affect our tissues. Even in the tropics sunlight helps to keep up man's flagging energies, which soon begin to droop in its absence. When his head and back are properly protected from the heat rays and his eyes from the glare, a white man can work freely and with enjoyment in the tropics, provided that his constitution has not been injured by alcohol or malaria. His skin acts freely, his mind is clear and his body vigorous, and these results are independent of the action of the actinic rays of sunlight upon his body, but depend upon the concomitant low relative humidity of the air and the generally high barometric pressure. Proper cl thing is nece sary and generally the white garments which are so universally used are hygienically the best. To wear under them black clothes as recommended by Mr. Heustis, would simply predispose to heat stroke.

The principal factor of depression resulting from sunshine is th t due to over stimulation of the optic nerve from the glare. Continuous bright sunshine tends to cause eye-strain, and this has been recognized by doctors and tropical residents for very many years. It is guarded against by shading the house with verandahs and blinds, and by wearing coloured glasses out of doors. It is the only drawback which exists to the therapeutic use of sunshine.

Mr. Heustis has not succeeded in proving that sunshine is injurious to man, and doctors will continue to believe in its beneficial effects. The Canadians can continue to develope the resources of their great country without having the depressing conviction that in the end the actinic rays will conqu r them and that their children will not inher't the land. The Italians have a proverb, *Dove nou va il sole, va il medico,* which is founded on the accumulated experie cè of generations. In the dark and narrow streets of our crowded cities, phthisis, rickets and other nutritional diseases flourish; in the free admission of sunlight by the creation of open spaces and wider streets lies the salvation of future generations. Doctors will continue to build their hospitals with a southern aspect, and the actinic ray bogey will not alarm them. If an additional argument were needed to prove the unsoundness of this theory, we have but to point to the difference which exists between the inhabitants of dark and secluded valleys and those who dwell in the mountain tops. Goitre, anaemia, phthisis and diseases of varied na ure are endemic in the former, while the mountaineers freely exposed to the vivifying rays of the sun look generally the picture of health.

The prevalence of neurasthenic conditions depends in no way upon the sunshine. The Britisher whom Mr. Heustis credits with having no nerves to speak of is as great a rarity as the American with a similar negative blessing. Neurasthenia is as old a disease as civilization is old, and only its name is new. It is common in all the countries of Europe, and affects all classes, rich and poor. The predisposing causes of neurasthenia are heredity, alcoholism, deficient nutrition and general debility—the exciting causes

are excessive mental or muscular work, worry, anxiety, irregularity of living and traumatism. Neurasthenia is the Nemesis which lie in wait for the successful man of business, who has exhausted his nervous energy in the accumulation of his millions and who finds in the end that his money is but vanity and a vexation of spirit; neurasthenia is equally the portion of the disappointed failure who by his own fault or through adverse circumstances has gone to the wall. The young professional man in his struggle for existence is liable to neurasthenic trouble; the dweller in a remote village, to whose activities opportunities are lacking and whose spirit rebels against his hard fate, the mourner crushed by a deep sorrow, all whose nervous systems are torn by the intricate machinery of modern civilization, fall victims to neurasthenia when their limits of endurance are reached. If neurasthenic conditions are more common in America than in England it is because the struggle for existence is more severe and because life is not so even as in the latter country, but during the past few years the two peoples have come to resemble one another in the feverish and excitable activity of their lives. Neurasthenic conditions have increased because of the increasing unrest of the times, and the lessened self control which is evident on all sides. Neurasthenia is not more common in sunny than in cloudy countries—it is a malady of civilization and not of climate.

The stimulating effects of a bracing climate, which is usually associated with sunshine, altitude, low relative humidity and high barometric pressure, enable work to be performed with ease, and maintain the functions of the body at the highest level. Provided that due intervals for rest are obtained depression does not follow. Some individuals are not equal to the efforts of existence in a bracing climate and prefer one that is more sedative—and this is generally true of old people. As a rule, however, healthy individuals work best and live the fullest lives in bright, sunny, bracing districts.

Adequate periods for rest are essential to those who live the full and strenuous life, and it is because the candle is burnt at both ends that so many city dwellers break

down. The climate has only an indirect effect by favouring the expenditure of energy. Contrary to the theory of Mr. Heustis, the practice of doctors is to send broken down neurasthenics to rest in quiet places in which they can enjoy fresh air and abundant sunshine, and the results justify the practice. It is scarcely necessary to say that the question of glare is not lost sight of, and patients learn to protect their heads from the heat. The necessity for rest is rightly insisted upon by Mr. Heustis, but I have my doubts as to the advisability of making a practice of the mid-day siesta even in the tropics, where however in any case work should be suspended in the middle of the day at the time of greatest heat.

In conclusion, I hope *Mr. Heustis will allow me* to say that such a clear and lucid paper from a layman in a medical journal is welcomed by all, and although my criticism of his theory is adverse, his paper itself is suggestive and interesting. I note that Mr. Heustis himself despairs of converting doctors to his views, and I am afraid that he must bring forward a few more facts before he will convince us of the error of our ways. I wonder whether I am too optimistic in thinking that the arguments I have used may shake Mr. Heustis' confidence in the truth of his theory!

CLINICAL MEMORANDA

Intestinal Obstruction.

CASE I.

S., age 35, Scotch, well-built, muscles well developed.

Saw patient first on the morning of November 14th, complaining of very severe pain in abdomen. This was not localized and was colicky in character.

The patient had gone to bed the night before feeling perfectly well. About midnight he had a slight pain in the region of the umbilicus, as well as he could remember. This disappeared gradually to appear about 3 a.m. with greater severity and from then until the afterno n of November 15th never entirely disappeared. There was very little abdominal distention. On the 14th the bowels had not moved satisfactorily so an enemeta was tried but returned clear and odorless. Pain increased on pressure. Temperature 98 2-5°F., Pulse 90, Respiration 20. Tr. Card. Co. and SP Chlorof. aa with hot fomentation relieved pain so that patient was resting easily from about 3 p.m. of the 14th until the evening of the 15th. No stool nor gas passed during the time. Refused to go to hospital though advised that condition might be serious. On the morning of the 15th there was only slight tenderness just below umbilicus. Slight abdominal distention. Towards evening the pain returned and became very severe and he consented to go to the hospital. Admitted to Holy Cross Hospital about 10 p.m., November 15th. High enemeta given ineffectual. Consultation with two confreres on the morning of the 16th. Abdomen greatly distended forming an oval swelling around the umbilicus, dulness over descending colon. Temperature 99 3-5°F., Pulse 112, Respiration 28. Sigmoid irrigation failed. *Diagnosis*, either volvulus or obstruction from adhesions. Intussusception

excluded as no tumor could be felt and the absence of blood or mucus in enemeta.

Immediate operation advised and patient consented.

Operation.—Median incision, A small quantity of peritoneal fluid escaped on opening peritoneum. The enormously distended caecum protruded through the incision. Small intestines, caecum and ascending colon distended with gas and greatly congested, (being absolutely purple). With difficulty the constriction was located at the hepatic flexure or rather what should have been the hepatic flexure. The constriction was caused by a portion of the jejunum which had become displaced upward and forward and firmly adherent to the under surface of the liver and the posterior wall of the abdomen. In consequence the colon had been pressed backwards and the point of occlusion was where it passed over the bodies of the vertebrae. The pressure was partially relieved by raising the constriction with the finger and gas and faeces were passed through a rectal tube which had been previously introduced.

An effort was made to break down the adhesions but with very little success. The patient suddenly collapsed so that an anastamosis was abandoned. A small incision was made in the caecum which, by the way, had become so much distended that the peritoneal coat had ruptured, and gas and faeces drained. This incision was closed with fine silk, and the peritoneal tear repaired so as to cover it.

The patients condition prohibited further work, so incision was closed and patient returned to bed. Temperature 96, Pulse 100, and very feeble. Subcutaneous saline and stimulants administered and patient surrounded by hot bottles.

Consciousness returned for a short time when coma supervened and patient gradually sank.

When first called to see case I made enquiries as to history but was told that he had been in the best of health up to the onset of the pain. Since then I have found this to have been incorrect, a brother telling me that the patient

had never had a satisfactory movement of the bowels for the last two years, at which time he had a similar attack though not so severe. Had this information been forthcoming when the case was first seen the operation would have been performed 36 hours earlier, and the result might have been different.

CASE II.

As this case was only seen Post Mortem, I can say nothing about the history of the case except the evidence of his wife under oath swore that he had never been sick for a day in the last five years except for an occasional slight attack of rheumatism which was not severe enough to confine him to bed.

The small intestines nd colon as far as the splenic flexure were slightly distended with gas and liquid faeces. Here there was a stricture of the descending colon about an inch in length. This was so tight that above it there were scybalous masses about the size of a marble that would not pass through it. From this to the sigmoid there were two more similar strictures, the intervening bowel being distended with gas.

From the beginning of the second part of the rectum as far as could be seen was another stricture five or six inches in length. An incisio was made in this part of the gut and with difficulty an ordinary lead pencil was introduced.

The remarkable feature here is, if the wife's sworn statement is to be believed, the absence of symptoms with such a pathological condition present.

I might say further, though it is outside of my text, that the right kidney was cystic (about the size of a large orange), the upper one-third alone retaining its function.

Calgary, Alta. R. D. Sanson, M.D.

Notes on a Case of Appendicitis Complicated by Pregnancy.

A tall healthy looking woman, 25 years of age; primipara was taken suddenly ill with a pain in the right iliac region during the night of anuary 8th, 1906. The pain was accompanied by vomiting. She was pregnant about six months. There was no history of previous illness, except those common to childhood. The bowels were usually regular but during the latter few months of pregnancy there had been a tendency to constipation.

When first seen on January 9th the temperature was 102.8°, pulse 120, and respiration 36. No vaginal discharge. The abdomen was distended, the enlarged uterus reaching a little above the umbilicus. There was considerable tenderness in the right iliac region, with rigidity of the abdominal wall in the immediate vicinity.

Examination per vaginam enabled me to exclude extra uterine pregnancy. Hot fomentations were applied calomel ¼ gr., repeated, given by mouth, and a soap and water enema administered, without result.

Twenty four hours later her condition was as fol ows:—Temperature 101, pulse 120, and respirat on 32. Pain and tenderness in iliac region diminished, painful micturition, and bearing down pains. Flatulence, no vaginal discharge. A yellowish curdled motion and flatus was passed as the result of a turpentine injection.

By January 12th, four days from the outset of il ness, her condition had greatly improved. Temperature normal, pulse 112, respiration 28 and nurse reported no vomiting and no pain during night.

This improvement continued during the next two weeks, the temperature varying between 98.4° and 98.6°, and the pulse 108–116 per minute. There was a tendency to sleeplessness, but this was overcome by means of Sulphonal. She took nourishment well, viz:—Milk, Barley-water, Chicken-tea and Bovril. The bowels acted naturally with the help of occasional enemata.

About three weeks after the first attack, when everything seemed to indicate that she would "carry" to full

time, she was seized with a recurrence of the pain, similar to the initial attack, and in addition, very slight uterine pains, with slight vaginal discharge, which was coloured. On vaginal examination the os uteri was found slightly dilated—about the size of a five cent piece. The temperature at this time was 99.6°, the pulse 128 thready in character and easily compressed. As she was very weak and the slight uterine pains had but little effect on the lower uterine segment, the patient was placed in Sims' position and the os uterus gradually dilated by the aid of Bozzi's dilator. No anaesthetic was given. When sufficiently dilated craniotomy was performed, and the uterus rapidly emptied. Next day the temperature was subnormal and the pulse rate had dropped to 108 per minute. For three days following there was persistent retching. Rectal injections and rectal feeding were continued, and Champagne and Brand's Essence given by the mouth. The pain in the right iliac region continued for some days and then gradually subsided. The bowels continued to be constipated Two weeks after the operation for induced labour a "lump" could be made out in the region of the appendix. The patient having regained strength was anaesthetical, and an incision made three inches long, beginning one inch above and internal to the right anterior superior iliac spine. The transversales having heen incised, fluctuation could be elicited in the "lump." This was opened on its outer aspect, by Hilton's method, when about eight ounces of stinking pus was liberated. The abscess cavity was washed out with hydrogen peroxide, 50%, and a good sized drainage tube inserted, iodoform gauze being packed loosely around it, and the transversalis, internal oblique, external oblique, and skin severally sutured.

The patient made an uninterrupted recovery.

There was a good deal of thickening around the scar. This improved with the application of Iodized Vasogen.

Remarks.—This was an extremely anxious case. At the outset one thought of tubal pregnancy, but on examination this was negatived, because primary rupture, as a rule, takes place during the second month of pregnancy.

Secondary rupture, on the other hand, may occur at any time between the twelfth week and full term. The advanced state of the pregnancy made the examination in the region of the appendix extremely difficult. To have operated at the very outset, with the difficulty of reaching the Appendix, and the possibility of having to drain the parts behind the enlarged uterus, would have simply courted disaster. The only hope for the patient lay in the localization of the appendicular abscess, and this took place even with the not inconsiderable amount of movement and straining, consequent upon the inducement of artificial labour. The temperature during the course of the illness was no guide to the condition of the patient, with the exception of the first three days it remained more or less stationery, between 98° and 99°. The pulse rate, on the other hand, varied from 90 to 130 per min., and bore no relation to the temperature.

She is now in excellent health, her menstrual periods being regular and painless.

Appendicitis occurring during pregnancy is not of sufficient frequency to be common—hence the publication of these notes.

Andrew Croll, M.D., M.Ch., Edin.

Saskatoon., Sask.

WESTERN CANADA MEDICAL JOURNAL

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EDITORIAL

The Subject of Reciprocity

We cannot let the subject of Reciprocity drop, feeling that it is the most important question before the medical profession in Western Canada at the present moment. Much more than appears at first glance is involved. The letter from a student which appears in our correspondence column shows that the coming medical man is following the discussion with lively interest. We are glad of this because it proves that if we do not gain this point our successors assuredly will. One has only to hear the opinions of the students on the subject. What is the bar? *Provincialism* always. For an individual to be dubbed "provincial" is a slur. Then surely for a profession doubly so. The greater the education and culture, the greater should be the open mindedness and straightforwardness.

It seems to us that the time has arrived for the College of Physiciansand Surgeons of Manitoba to assume their rights as an Examining Board. It is felt that the anomalous position in Manitoba is one of the greatest stumbling-blocks to possible Reciprocity with other Provinces.

Over-ruling of Professional Council by Parliament

We read that the Licensing Dentists' Board in Ontario has been over-ruled by Parliament simply because of a lady successfully lobbying. We may well ask, are laws made to be broken? And, what Body controls the professions in Canada? Again we have heard that in a Western Province one of the Provincial members threatened he would *pass a bill doing away with the powers of the College of Physicians and Surgeons* if the candidate in whom HE was interested were not granted a license. We have heard that "that's how they do things in China." but in Canada, the Land of the Free! We may certainly enquire whose fault it is that such can be!, The humiliating answer is, OUR OWN, our known apathy as a profession to matters of public interest. There are now signs of an awakening. There is at least "arm-chair" agreement with the necessity of radical changes. We hope the next step will be a vigorous campaign to get the changes needed. Let us become a united house and proceed to look after our affairs and to watch that laws made are carried out rigorously and, if not, find who are the offendors at Ottawa and the Provincial Houses. What is needed is not only medical men in parliament but members for the *Medical Profession* who should of course preferably be medical men. Those at present in the House should be watched and if they are found not faithful to their stewardship, let it be remembered against them next election. Much however is done in ignorance. We should all make a point of educating our members on matters of Public Health. The material good to our country obtained by such can be easily proved. "A long pull and a strong pull, a pull altogether" will gain all desired.

TO OUR SUBSCRIBERS.

We are glad to report that every day brings us new subscribers, some of whom living far in the country tell us they have just received the Journal. These letters are most encouraging because of the ring of hearty wish to co-operate in its success. Some have sent criticism and points that have been of assistance. Criticism shows *interest* and that is what we wish. Statistics which we so much wish are beginning to come in. May we ask all authorities to help forward our work by sending vital statistics to us *monthly* if possible, if not, as *often* as possible. Western Canada is wide awake and wants information on many important points that only medical authorities can give *accurately*. Now that we "have turned the corner" may we also ask our subscribers to help by bringing the Journal before the notice of any who may not know of our existence. As we have said we are *here to stay* and we have scientific papers from good men that will carry us through the year. All we ask now is assistance from subscribers by their contributing *papers*, *reports* and *news*. Also using our columns when selling their practices, requiring locums, etc. "Many hands make light labour" and when we have the support of all the medical men of the, West as we shall in time we shall have a medical Journal of which we can be justly proud in every respect. The difficulties for carrying out such a work are as all know greater in the West than any where, but the difficulties will be the cause of the success, giving zest to the work. Everyone with any grit enjoys leaping over obstacles.

The Council of Physicians and Surgeons of Manitoba has promised reports of its meetings which will be always of great interest to our readers.

The Journal travels to the old country, to the continent, to South America and the United States, Many leading men are greatly interested in its progress. Western Canada is the favourite colony just now. Let us show that the

intellectual progress is endeavouring to keep pace with the material. When one hears of new universities, new colleges, discussions of reorganizations on all sides it seems this is so. A good sign of the times.

We have to thank Dr. Matheson of Prince Albert, for promising to act as local Editor and Dr. McKay of Dauphin in place of Dr. Lineham, who has gone to the coast.

Dr. Welsford who contributes a paper this month has kindly promised to act as foreign correspondent.

OUR REPRESENTATIVE

J. J. Dougan, Esq., is our only accredited representative in the Provinces. Mr. Dougan writes us that the "Journal" is enthusiastically received, and that almost every practitioner will eventually become a subscriber. From the number of subscriptions received from Mr. Dougan his prognostications are being fulfilled rapidly.

CORRESPONDENCE

To The Editor,

Dear Sir:—

To the Medical student the discussion of the subject of reciprocity which the journal is promoting is of the nature of glad tidings. He considers the examination which he must face in his final year as a sufficiently severe test of his qualification to practise and the fact that his license may depend upon his satisfying others than his professors is a cause for considerable uneasiness.

The student entering upon the study of medicine does not look about for the college whose requirements for graduation are most easily satisfied, but for the one which will most thoroughly prepare him for the practice of his profession, and whether in going to college he travels from home one hundred or one thousand miles is to him a matter of comparative indifference. This being so, were it not for the provincialism of our present system, the school which gave its undergraduates the best training would have the largest attendance and the conditions necessary for a great national school of medicine would exist. When we think of medical training in Scotland, Edinburgh comes at once to our minds, and in the United States, Baltimore. Why could we not have in Canada some such similar place. The first step in the direction of a national school would be a federation of the different medical colleges and the standardization of medical education throughout the Dominion. If the curricula of the various colleges could not be identical at least the final examinations should and these should be set and the papers read by a central board of examiners. From the undergraduates point of view the present system is mainly based upon inter-provincial jealousies. It makes each province the presence of the local association and instead of preventing poaching provides the conditions which make illegal practising possible. If the present provincial legislation and associations have as their chief raison d'etre the control of quackery and charlatanism, it seems to the student that they are working from the wrong end as a strict uniformity in the requirements for graduation would accomplish this much more easily and certainly. In the opinion of the Student the professors who lecture to and train the men are alone able to pass upon their ability and to condition the licence upon the applicant satisfying the local practitioners in whose territory he may wish to do business is manifestly unfair. The student makes no protest against the expense or difficulty of obtaining a degree in medicine; let the requirements be as exacting as may be but let his degree entitle him to recognition throughout the Dominion.

Yours truly,

"Student."

SPECIAL ARTICLE

THE CONGRESS OF INTERNAL MEDICINE AT WIESBADEN, GERMANY, 1907.

BY C. F MARTIN, B.A.; M.D.

Professor of Clinical Medicine, McGill.

There are few more inspiring medical meetings than those for Internal Medicine which are attended annually by the leading physicians of Germany, and the congress which this year met at Wiesbaden was especially interesting, being the celebration of its 25th anniversary. It was before this assembly that Koch, about 22 years ago, notified the world of his epoch-making discovery as to the cause of tuberculosis; that Frerichs discussed his theories as to Diseases of the Liver; that Behring demonstrated his healing serum, and at subsequent meetings have been demonstrated many of the most important facts which have contributed so much to place Internal Medicine on the high scientific plane which it at present maintains.

Professor V. Leyden, now promoted to the title of "Excellency," the highest gift to a physician in the power of the German Empire opened the meeting with a retrospect of the work done by the members during the past 25 years, and concluded that from all the special work done and the great advances made the specialty of Internal Medicine had well earned its place as an independent sphere, justified as it was by the work done by pure physicians towards advancement in diagnosis and treatment and formulating principles based on the foundations of accurate physical examination of bacteriology, organic chemistry, microscopy, etc. The main discussion of the meeting at its opening session concerned the *treatment of neuralgia* for which Schlosser of Munich, strongly urged the direct injection into the nerve trunks or roots of small quantities of alcohol, and though his statistical results showed a remarkable series of cures, especially in severe cases of trigeminal neuralgia and sciatica, they were re-

garded rather as the results of mechanical effects than of any specific action of alcohol on the nerve tissue. This was confirmed by another observer who obtained similar results in a small series of cases by the injection in the same manner of small quantities of Schleich's solution. The method of Schlosser, viz· of introducing his solutions (for trigeminal neuralgia) by means of a curved needle directly into the main roots of the nerve close to important vital structures and large vessels, seemed an undertaking of considerable risk, though in only one out of 80 cases did he experience serious results, viz: a temporary paralysis of the oculo-motorius. Krause of Berlin in the course of the discussion still maintained that many cases were refractory to all forms of treatment and in such instances, surgical removal of the ganglion was the only worthy procedure. The operation which he considers as the most difficult in surgery, almost invariably gives relief and to those of us who had the pleasure of seeing his skilled performance, it would be with no hesitation that we would recommend patients to undertake the risk. Shortly before the meeting he performed, here in Berlin, his 57th successful removal of the ganglion, the operation taking little more than half an hour.

The treatment of sciatica was discussed at great length no special points being developed other than the successful results in some instances by injections of Stovain into the spinal canal. In a series of experiments made by Finkelberg, where injections of fluids were made directly *into* the nerves of rabbits, paralysis almost invariably followed leading him to the conclusion that Schlosser and others obtained their results rather by the pressure effects of the fluids around the nerves than by any direct or specific action on the nerve fibres.

Brieger again, whose work on Hydro therapeutics is well known, claims for his methods of treatment cures in 80% of sciatic cases, and urges in addition the regulation of the Diet, the diminution in meats, especially for those whose diathesis is uratic.

In several communications on *the prevalence of Tuberculosis* it was agreed that Nagele's former contention that

tuberculosis was present in over 90% of individuals could be confirmed and his new statistics from all conditions and classes of people showed some such large percentage of afflicted individuals who came to autopsy.

A new *serum against typhoid infection* (for animals) was demonstrated by Meyer and Bergell of Berlin who proved the presence in typhoid fever of two different poisons, one endogenous, an endotoxine, contained in the body of the bacilli and which was set free upon the degeneration of the germ, the other produced as a part of the life process of the organism, a Toxine, with this latter they were enabled to prepare a serum or antitoxine which successfully protected animals against a dose 20 times greater than that of the fatal one, used in two cases of human typhoid, the patients showed marked and rapid improvement though the speakers modestly claimed as yet nothing more for their serum than a rational mean of setting about a serum treatment.

Concerning *nephritis,* cases of acute inflammation of the kidneys were reported from the mere application of ice for some time over the region of the Kidneys.

Much discussion occurred as to the value of limiting sodium chloride in the treatment of renal disease and while Strauss, the originator of the plan, pleaded earnestly for the continuance of this method, others, and among them Von Noorden, warned those present against the too definite systematic withdrawal of salt (in all cases of nephritis whether with or without oedema) inasmuch as the constitution was bound to suffer in the long run from too great deprivation of this condiment.

Among the most interesting and instructive contributions to the congress was the demonstration by Spaltcholz of the *anastomosis of the coronary arteries* of the heart none of which, as he showed, contain end arteries as was formerly supposed. In fact it seems to be the opinion that each year revealed more and more the probability that no end arteries exist after all in any part of the body, though in some instances the intricate anastomoses have not as yet been discovered.

This communication of Spaltcholz has some bearing on the causation of sudden death from blockage of a coronary vessel, and while previously this was considered in chief part due to the existence of these end vessels and the sudden deprivation of nutrition to the heart muscle, It may now be said that where coronary blockage occurs from embolism, death will result only if the muscle tissue itself is so diseased as to be unable to withstand the tempor rary withdrawal of blood supply. Where, on the other hand blockage is followed by recovery it is evident that the muscle was sufficiently healthy to stand the interval of deficient nutrition, which is subsequently made good by the renewed supply through the finer anastomoses of other coronary branches.

Fahr of Hamburg presented a series of lantern slides to show lesions of the *auriculo ventricular bundle of His* and demonstrated sections to explain the variability of symptoms in Stokes Adams Syndrome, variations depending on the extent of the lesion over one or both divisions of the bundles. A *cinematographic projection of the Rontgen pictures of the heart and lungs*, demonstrated in a novel way the movements of the diaphragm during respiration, and its effect on the position and movements of the heart. In this manner one could readily see how with each expiration, the elevation of the diaphragm pushed the heart upwards and far outwards—an instructive demonstration for students of physiology. The exhibition of new *apparatus* was notorious for the great variety of newer methods of estimating blood pressure and of treating various lesions by the Bier method of inducing local hyperaemia.

As regards the former one could not be convinced of the superiority of any of the devices over the original Riva Rocci instrument which in proper hands should fulfil all the requirements for estimating variations in circulatory pressure, at all events as well as the more complicated and newer appliances. The Bier treatment has found greater favour with surgeons than physicians and its excellence in the hastening of cures, in sloughing sores, carbuncles, etc., after incision was a revelation to many who were present.

New *methods of auscultation and percussion* were demonstrated by various individuals, the most recent being that of Goldscheider, by means of which percussion is done upon a glass rod, the end of which (covered with a rubber thimble) is placed in a slanting direction upon the thorax. In this way by light percussion on the rod one is supposed to gain an improved sense of dulness and resistance. Confirmation is necessary to assure one of the improvement of all artificial aids over the proper use of the hands and fiugers to estimate differences in the underlying tissues and organs of the thorax. After a four days session in the beautiful town of Wiesbaden, the members of the Congress dispersed to visit adjoining places, famous for various cures by means of Hydrotherapy, chiefly Bad Nauheim and Baden Baden where the methods of treatment along these lines are probably unequalled elsewhere in the world.

GENERAL MEDICAL NEWS

MEDICAL SOCIETIES

Winnipeg.—At the last meeting of the Winnipeg Medical Association, *Typhoid fever* was discussed. Dr. Douglas read a paper on the *etiology*; Dr. Gordon Bell the *pathology* and *bacteriology*; Dr. Beath the *complications* met with in typhoid; Dr. Stuart gave *comparative statistics*; and Dr. Campbell, *the treatment.*

Thunder Bay Medical Association.—An important letter was read by Dr. Aikins of Port Arthur, on surgical subjects. Dr. Birdsall read a paper on different alcohols, claiming wood alcohol as the most poisonous.

VITAL STATISTICS

WINNIPEG, APRIL 1907.

	Cases	Deaths
Typhoid Fever	26	2
Scarlet Fever	56	3
Diphtheria	19	0
Measles	28	0
Tuberculosis	4	2
Mumps	8	0
Erysipelas	2	0
Whooping Cough	3	0
Smallpox	4	0

Total Deaths, 103; Total Births, 324.

EDMONTON.

1907	March	April
Deaths	13	16
Births	21	30
Marriages	13	21

Infectious diseases reported in April:—Typhoid Fever 27 (only 2 from city); Scarlet Fever 9; Measles 8; Tuberculosis 2; Erysipelas 1.

MEDICAL NEWS

The physicians of Saskatchewan are required now to report all infectious cases, including tuberculosis, *weekly.*

The City Health Officer, Regina, read a report at the City Council meeting in which he recommended the adoption of the Winnipeg by-laws relating to sanitation.

At the recent convention of the Canadian Association for the Prevention of Consumption, it was stated that the death rate from consumption in Canada had increased in ten years from 15.5 to 18 per 1000. In the last year of the decade however there had been a decrease of 85 lives. This is no doubt due to the dissemination of directions regarding the style of living for the prevention of the spread of the disease.

The Calgary Druggists have recognized the value of organization. At a recent meeting *every* druggist was in attendance.

The physicians of Grand Forks, N. D., have come to an agreement to raise their fees to $2.00 a visit instead of $1.50.

The following statement of salaries paid Health Officers, taken from the *Medicine Hat Times,* shows great lack of uniformity:—Calgary, population 11,967, pays $90 *a month*; Edmonton, population 11,163, $2000 *per annum*; Lethbridge, population 2,313, $300 *per annum*; Regina, population 6,169, $500; Moose Jaw, population 6,251, pays $150; and Medicine Hat pays $50 *per annum.*

The Reverend Wm. Moore, Secretary of the Canadian Association for the Prevention of Tuberculosis, Ottawa, is in Winnipeg. He will give lectures in Winnipeg and other parts of the Province of Manitoba on the ravages of

tuberculosis and the good of sanatarium treatment. After the lectures there is to be a vigorous canvass for subscriptions towards a Sanatarium for Manitoba. $75,000 is needed. $30,000 has already been raised. The site is not yet chosen.

The *Ontario* druggists have petitioned the government that carbolic acid be only allowed to be sold as a registered poison.

There is to be an Army Medical Corps in Winnipeg. Dr. Webster will command. There is still room for a number of good men.

The Council of Hamiota has passed certain by-laws recognizing the need of *authority* for the Medical Health Officer.

The Winnipeg Council, we are glad to see, is passing a by-law prohibiting expectoration in street cars and public places.

We are glad to see that the Ontario Medical Association are urging that a Minister of Public Health be appointed for the Province.

"Instead of opening the gates to a free interchange of lawyers, doctors, engineers and professional men they (the legislators) have been enacting legislation which is tantamount to an invitation to the people of other provinces to keep out . . . . Co-operation, concentration of effort is the key note of success."—*Industrial Canada, April,* 1907.

"My feeling on the subject of international, intercolonial and interprovincial registration is this—A man who presents evidence of proper training, who is a registered practitioner in his own country, and who brings credentials of good standing at the time of departure, should be welcomed as a brother, treated as such in any country and registered upon payment of the usual fee."—From "*Counsels and Ideals from Writings of Professor Osler.*"

The Provincial Government of Saskatchewan is purchasing a vaccine plant with a view to manufacture of vaccine within the province.

HOSPITAL NEWS

Dr. Archibald, City Health Officer for Strathcona, has written a strong letter to the council pointing out the great need of an isolation hospital.

A canvass of Daysland, Alberta, was recently made and $5000 was subscribed by the business men of the town This with other money in sight ensures a hospital.

Preparations are being made to build a hospital at Swift Current.

It is reported that the new Lunatic Asylnm for the North-West will be at Ponoka.

The quarantine hospital built by Winnipeg City Council is ready.

The annual meeting of the Souris General Hospital showed that its affairs were in a most satisfactory condition.

At the meeting of the Brandon Hospital Board, April 21th, the Building Committee reported the necessity for increased accommodation. An extension to the present temporary building was decided on, providing the cost could be met from outside sources.

The Council of Saskatoon have voted down the by-law to add $20,000 to the previous $30,000 voted for the hospital.

The plans of the new city hospital, Saskatoon, are out and tenders have been accepted. It will have an accommodation for 50 patients and will cost about $50,000.

The St. Paul's Hospital, Saskatoon, has been removed to more commodious quarters on an ideal site over-looking

the city. There is accommodation for 20 patients. This will be increased when the new building is opened. Sister St. Dosithee, who has had great experience at Edmonton and St. Boniface, has been appointed Superintendent.

The Sanatarium for Consumptives, B. C., will be built on the shores of Kamloops Lake at once.

The lack of hospital accommodation at Edmonton is at present greatly felt. The large new hospital is to be started at a cost of $125,000.

The Board of the Catholic General Hospital, Edmonton, have also decided to enlarge.

The trustees for the McKellar General Hospital are preparing plans for a $40,000 addition to their present building, accommodation for 150 patients. The addition will contain a new operating room, etc.

The Health and Relief Committee, Regina, passed the following report:—That $100,000 be raised by debentures to be expended on the building and equipping of a general hospital, in addition to any money obtained from other sources, as sale of present hospital, etc.

NOTICES

The fortieth annual meeting of the Canadian Medical Association will be held at Montreal, September 11th, 12th, and 13th, 1907. Those willing to contribute papers should communicate as soon as possible with the general secretary, Dr. George Elliott, 203 Beverly Street, Toronto.

VACANCIES

Doctors are wanted at the following Saskatchewan points: Lang, Herbert, Ruddell, Churchbridge, Sunny Plain, Creelman, Glen Ewen, and McTaggart.—From *The Commercial*, April 27th.

PERSONALS

Dr. Latimer of Brandon has returned from taking a Post Graduate Course in Eye, Ear and Throat at Chicago.

Dr. Robinson of Vancouver, spent a few days recently in Winnipeg on his way home from a Post Graduate Course at New York and Baltimore.

Dr. Thomson of Regina, had a bad accident lately, fracturing one of the bones of the hand while attempting to board a freight train.

Dr. Steep of Winnipeg, is just now recovering from an attack of typhoid fever.

Dr. Bell of Rocanville, has sold his practice to Dr. Christie of Kenora.

Dr. Chambers of Brandon, paid a short visit to Elgin in April.

Dr. Ellis, M.P.P. for Moosomin, has returned to Fleming as the second session of Legislature has been prorogued.

Dr. and Mrs. Lineham and family, of Dauphin, left for Okotoks, where Mrs. Lineham and children will spend the summer. Dr. Lineham goes to Victoria.

Dr. Everett Learmont of High River, paid a short visit to Calgary on April 14th.

Dr. Schaffner of Boissevain, has been appointed member of the Provincial Board of Health, and also Health Inspector for District No. 2.

Dr. Edwin McEwen of Cloverdale, has been appointed Coroner.

Dr. A. C. Robertson of Dawson, City Yukon, was in Winnipeg April 19th. He left April 21st for the West and intends going straight through.

Dr. and Mrs. Andrews af Minnedosa, visited Brandon in April.

We regret to hear that Dr. Todd of Winnipeg, who has been taking Post Graduate work in Europe, had to undergo an operation for appendicitis, and are glad to hear he is doing well.

Drs. Tunstall and Proctor of Vancouver, visited Kamloops, B. C., the middle of April.

Dr. Bigelow of Brandon, has gone to Rochester, where he will visit Dr. Mayo's hospital.

Dr. M. A. Griffin of Bradwardine, visited Brandon April 9th.

Dr. Cooper of Winkler, has gone to England to take a Post Graduate Course, specially studying the Eye. Dr. Lockburn Scott of Winnipeg, has taken Dr. Cooper's practice.

Dr. J. F. Droing of Yorkton, visited Winnipeg early in April; also Dr. Eaton of Carberry, and Dr. Sherrin of Souris.

Dr. Stone of Grayson, Saskatchewan, who went East on account of his fathers' illness, has returned. His father has recovered.

Dr. C. H. Craig of Wawanesa, has regiven up his practice there and settled in Broadview, Sask., where he intends practising.

Dr. Rush of Vegreville, visited Edmonton April 6th.

Dr. Low of Regina, has returned from his holiday.

Dr. Irwin of Hartney, has been elected to the Council of the Board of Trade.

Dr. H. Ross of Invernay, has left for the East. He has recently been most seriously ill with *La Grippe.*

Dr. Seymour of Regina, who has been seriously ill, has gone to Chicago for treatment. We are glad to hear he is improving.

Dr. and Mrs. McCullough of Moose Jaw, are visiting the United States.

Dr. Popham of Winnipeg, has returned from a holiday in Chicago and Columbia.

Dr. Robert Thornton of Deloraine, has resigned his post as Coroner.

Dr. Cunningham of Carman, was in Winnipeg attending the examinations, of which he is one of the Medical Examiners.

Dr. Wilson of Alix, has opened an office in Daysland, Alberta. Dr. Wright from Tottenham, is also expected to settle there.

Dr. J. B. Chambers has been appointed Assistant Medical Superintendent to the Brandon Asylum.

Dr. Boyle of Toronto, has arrived in Edmonton, where he will practise.

Dr. Coad of Franklin has sold his practice and drug store to Dr. Duddridge of Snowflake.

Drs. Roche and Hunt of Minnedosa, are dissolving partnership. Dr. Hunt has formed a partnership with his brother in Port Arthur.

Miss Sisley, the matron of the Saskatoon City Hospital, has returned to her duties after a fortnight's sojourn in Winnipeg.

Dr. Parkinson of London, England, has started practice in Asquith, Sask.

Dr. Stevenson of Moosomin, has returned from his visit to New York.

Dr. Roche, M.P., stayed a few days in Winnipeg on his way home from Ottawa.

Dr. Baldwin of Winnipeg, is acting as *locum* for Dr. Bruce during his absence.

Dr. Sautford from the Rhine Province, has arrived in Regina, where he intends practising as soon as he has qualified under Provincial regulations.

Dr. Charlton, Provincial Bacteriologist is acting as Provincial Health Officer during Dr. Seymour's (Regina) absence.

Dr. Edwin Bruce and Bride of Swan River, spent a few days in Edmonton, at the home of the doctor's parents, the first week in May.

Dr. Galloway of Winnipeg, has gone to Washington, D. C., to attend the annual meeting of the Orthopaedic Association.

Miss Venables, matron of Carman hospital, has returned to her duties at the hospital.

Dr. Williamson of Kingston, is acting as *locum* for Dr. Crozier of Port Arthur, during the latter's visit to Europe.

Dr. Alex Munro of Vancouver, visited Winnipeg May 1st on his way to Rochester and Chicago.

Dr. S. W. Prowse of Winnipeg, has gone on a holiday to Chicago and other American cities.

Dr. Wilson of Dundurn, has sold his drug business to F. G. Livingstone.

Dr. Crosby of Manitou, visited Winnipeg early in May.

Dr. McDermot, a former Manitoban, now in Chicago, recently visited Winnipeg.

Dr. Guilmette, Winnipeg, will take a post on the G.T.R. north of Strassburg; Dr. Peterson, Winnipeg, on G.T.R., Edmonton; and Drs. Musgrove, Mitchell and McDermot, of the General Hospital staff, Winnipeg, will practise in the city.

Dr. St. John is taking Dr. Davidson's practice in Manitou.

Dr. Hart, the President of the Student's Association, has been in charge of the smallpox hospital in Winnipeg.

Dr. Andrews has taken Dr. Robertson's practice at Stonewall.

Dr. McRitchie, Winnipeg, is now on G.T.R., west of Whitemouth.

BORN

Metcalfe—At Portage La Prairie, Tuesday, April 9th, the wife of Dr. W. G. Metcalfe of a son.

Collinson—On April 10th, at Edmonton, the wife of Dr. Collinson of a son.

Aylen—March 17th, at Edmonton, the wife of Dr. P. Aylen of a daughter.

MARRIED

Wardell—Hickie—On Saturday, April 20th, Dr. W. H. Wardell of Moose Jaw was married to Miss Dora G. Hickie of Winnipeg.

Howson—Vance—At St. John's Cavan, Ontario, April 3rd, Dr. C. Howson of Stettler, Alberta, was married to Miss Adah M. Vance, daughter of Robert Vance of Pine Grove, Cavan.

Bigelow—Gordon—April 12th, at St. Paul, Minnesota, Dr. W. A. Bigelow of Brandon was married to Miss Grace A. Gordon of Minneapolis.

Bruce—Harley—On April 25th, at Swan River, Dr. G. Edwin Bruce was married to Miss Ethel Harley.

BOOKS FOR REVIEW

CONFERENCE ON THE MORAL PHILOSOPHY OF MEDICINE BY AN AMERICAN PHYSICIAN. (The Rebman Company, 1123 Broadway, New York.)

All young men who have recently graduated should certainly read this work and start well advised how to be successful. The writer takes up every possible phase of a physicians life—student, teacher, schools, Relation between doctor and patient, The physician in politics, Hospital practice, Public speaking, writing for publication, culture Specializing, retirement, and treats them all in a most helpful manner We wish all the medical members of parliamen. would read the Chapter on Politics and act thereby. All except those who suffer from the sin of self-sufficiency would certainly profit by a perusal of this volume.

ROME AS A WINTER RESORT BY A. G. WELSFORD, M.D., CANTAB; F.R.C.S., P.H.D. (The La Sperenza Publishing Company, 38 Via Firenze.)

This work should be of great service not only to the many British and Americans who visit the "Eternal City" but to all medical men who so often are called on to advise suitable winter resorts. The author very successfully destroys many myths regarding the health of Rome. More is certainly known, as the writer says, of the Rome of the past than of the present modern city with its up-to-date sanitation, good accommodation, many healthful occupations and recreations for th e visitor. By statistics he proves that it is now a Winter Resort of the first Order. Valuable advice is given regarding time to visit, where to live and what sanitary conditions to look for. There is also a very interesting introduction by G. SANDESON, BROCK., M.D., C.M.. F.R.S.E.

HANDBOOK ON ELRCTRICITY IN MEDICINE BY DR. GUILLEMINOT (Paris), translated by W. DEANE BUTCHER, M.R.CS.' Surgeon to London Skin Hospital. (Published by the Rebman Company, London and New York.)

The work is divided into three parts:—PHYSICS—PHYSIOLOGY—AND MEDICAL TREATMENT.

The 180 pages devoted to Physics includes a large range of subjects, viz: ozonisation; electricity, as a generator of motion for machines used in treating disease; photography and thermotherapy; magnetism and electromagnets in addition to the various currents used in medicine. A knowledge of elementary physics will be of great assistance in reading this portion of the book and will save time.

The 120 pages given to the consideration of the physiological results of electricity is divided under five headings, viz:—continuous current; variations of the current; high-frequency and high-tension currents; static electricity; various forms of radiation.

The third and largest division of the work, which consists of 260 pages, is taken up with the therapeutic uses of electricity. It gives in an Epitomised form the methods to be employed in nearly every disease for the treatment of which electricity has been used so far, particularly the procedures adopted with the continuous and interrupted currents. It is, therefore, a useful book to have in one's shelves for purposes of reference.

J. H. BOND.

THE EFFECTS OF TROPICAL SUNLIGHT ON WHITE MEN, BY MAJOR E. WOODRUFF, A.M.M.D., Surgeon United States Army. (Published by the Rebman Company, London and New York.)

A very interesting and readable book. A good resume of the present knowledge and theories of the effects of sunlight. The clear and graphical manner in which the subject is presented would seem to be due to personal experience and keen observation superadded to an intimate acquaintance with the literature on the matter.

Probably some of the opinions at present held will be changed by further investigation. As a science the knowledge of the effect of sunlight in its bearings upon life is in its infancy.

Empirical observations thereupon and therapeutic applications resulting therefrom date back to far distant times. But the searchlight of science has only recently been turned on the light of the sun as it influences vegetable and animal organisms, to discover the reasons which produce the results of other causes.

The book is one which every physician could read with advantage especially those who are in the habit of sending patients to Southern California and others of the Southern States of the Union which are within the semi-tropics.

To anyone contemplating residence within the tropics or semi-tropics, whether for a longer or shorter period, the information as to clothing dwellings, habits of life, to be adopted will prove invaluable. Since every physician is liable to be called upon for advice on these points it will be to his advantage, apart from the intrinsic interest of it, to be familiar with the work. J. H. BOND.

We have received the following:

LIFE OF SIR HENRY VANE BY W. W. IRELAND, M.D., (Published by Oliver & Boyd, Edinburgh).

PRINCIPLES AND APPLICATION OF LOCAL TREATMENT IN DISEASES OF THE SKIN BY L. DUNCAN BULKLEY, A.M., M.D.

MENSRUATION AND SKIN DISEASES BY L. DUNCAN BULKLEY, M.D.

ON THE RELATIONS OF THE DISEASES OF THE SKIN TO INTERNAL DISORDERS BY L. DUNCAN BULKLEY, M.D.

SURGERY OF THE GENITO-URINARY ORGANS BY J. W. S. GOURLAY, M.D.

LIST OF GRADUATES AND LICENTIATES FOR MANITOBA, 1907.

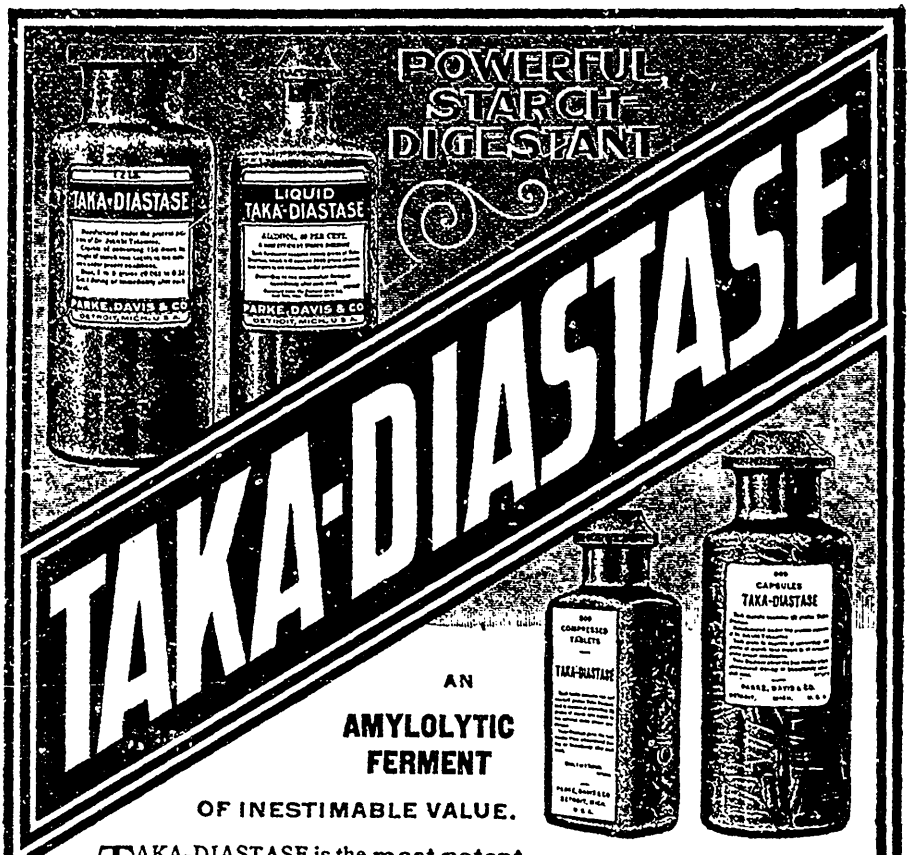
M.D.—Fredrick William Andrew, Alexander Howard Armitage, Daniel Baldwin, Edward MacDonald Blakely, Edmund James Boardman, William Alexander Coglin, John Henry Conklin, Thomas Richardson Corbett, Robert William Henry Guilmette, Claude E. Kilborn, Alexander King, Benjamin Lang, Gordon Neill Mayne, William Angelo Mott, Prescott Campbell McArthur, Alexander Malcolm Macaulay, Duncan Alexander Macdonald, Herbert McGregor, Andrew Pritchard MacKinnon, Philip McRitchie, Thomas Henry Porter, Franklin Guy Schwalm, Lockburn Burton Scott, William Free Stevenson, Earl Stewart, Frederick Agar St. John, John Bain Thom, Eugene Walters, George Forrest Weatherhead, Victor George Williams.

C.M.—Frederick William Andrew, Alexander Howard Armitage, Roslyn Brough Mitchell, Wm. Wesley Lorne Musgrove, Herbert McGregor, Frederick Agar St. John.

Honors.—Silver Medal, Frederick William Andrew; Bronze Medal, Frederick Agar St. John; O'Donnell Gold Medal in Obstetrics, Frederick William Andrew; Hutchinson Gold Medal, Frederick William Andrew.

Scholarships, First Year.—George Washington Webster, $80.00; William James Elliott, $25.00; George William Mooney, $25.00. *Second Year.*—Clarence Currie Everton, $80.00; William Newton Maines, $50.00. *Third Year.*—Percy Bissell Grant, $80.00; David Alevander Volume, $60.00.

Licenses Granted.—Abram Bercovitch, Raymond Brown Chas. F. Covernton, G. Garetti, J. A. Galliott, H. B. Gourlay, J. P. Hiebert, C. P. Holden, F. Lachance, G. G. Malcolm, W. H. Reilly, E. Richardson, J. L. Robinson, W. H. Secord, C. P. Templeton.



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