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WESTERN CANADA MEDICAL JOURNAL

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ORIGINAL COMMUNICATIONS.

ISCHEMIC MUSCULAR ATROPHY, CONTRACTURES, AND PARALYSIS

BY ALEX. HUGH FERGUSON, M.D.; C.M.

CHICAGO, ILL.

Professor of Clinical Surgery in the Medical Department of the University of Illinois; Surgeon to the Chicago Hospital, etc,

In discussing the rare subject "Ischemic Muscular Atrophy, Contractures and Paralysis," a serious condition so often replete with the startling proof of our negligence, I may be pardoned if I consume a little of your valuable time in pressing home some of the points I consider to be of prime importance, and adding a short account of two recent cases treated by myself of this disorder.

Ischemic atrophy and paralysis, being the changes which occur in muscles from which the blood supply is more or less cut off, may be due to

1. *Arterial*—depending on two causes: (a) Interruption must be nearly complete; (b) interruption must be of more than two or three hours' duration, otherwise it is easily tolerated—sometimes incomplete interruption for several days.

2. *An Interrupted Venous Return.*

CAUSES. 1. Embolus—cardiac.

2. Thrombus—syphilitic endarteritis, or following acute infectious diseases.

3. Raynaud's disease—changes in vessels due to defective nerve innervation.

4. Direct injury to a vessel.

5. Cold.

6. Most common of all—tight splinting to which I shall mostly refer.

SYMPTOMS.

Paresthesia—numbness and tingling in parts of limb affected, and perhaps combined with alternating sensations.

Severe and often paroxysmal pain in muscles followed by cramps and spasmodic jerkings.

Limb often pale, but sometimes cyanosed and cold.

Electric irritability of muscle lost after ischemic condition has lasted five hours, and the muscles are quite flaccid and powerless, as seen in operations after prolonged use of Esmarch's bandage.

After seven hours, muscular rigidity and painful contractures begin. These increase in severity, but disappear in two or three days, leaving muscle again flaccid.

Oedematous condition from more or less established collateral circulation. Muscles now tender on pressure.

Swelling gradually disappears; muscular atrophy becomes manifest, muscles being hard and firm.

Contractures follow—hand flexed at wrist, and fingers at phalangeal joint. Final contractures due to atrophy of muscles and overgrowth of fibrous connective tissue.

Atrophic changes in the skin often present.

Course—This depends on the duration of the primary ischemic condition. When cramps and rigidity have set in, probably no immediate recovery of the muscle is to be looked for, but short of this the muscles may readily recover, if the blood supply is restored.

In cases where cramps have appeared, it is probable that many of the muscular fibres die, and have to be replaced by regeneration—a long and slow process, or by repair.

When ischemia is of greater duration, and the muscles have become flaccid, it is not probable that any great amount of restitution can occur. However, certain fibres may have escaped, and from these new fibres may be formed, but the amount of recovery will be small. In such cases the muscles rapidly atrophy, becoming tough, hard and contracted.

PATHOLOGICAL ANATOMY.

A. If blood supply is completely interrupted.
   1. Muscle is gray, dirty yellow color, dull in appearance, and friable.
   2. Under microscope — transverse and longitudinal
   3. Almost complete absence of muscular nuclei.
   4. Usually no fatty degeneration.

B. If blood supply is partly interrupted.
   1. Muscle firm and tough; more or less normal in appearance.
   2. Under miscroscope—great increase of fibrous connective tissue between bundles of muscular tissue and between individual muscle fibres and cells.
   3. Fibres have lost their polygonal form; are smaller and rounder, but maintain their striæ even under extreme atrophy.

II.—INTERRUPTED VENOUS RETURN:

1. Acute symptoms are those of thrombus, viz., swelling, cyanosis, edema, limb feels fuller, harder, and is tender on pressure.

2. Acute symptoms may pass off, but limb is left in condition of passive congestion, making limb larger—pseudo-hypertrophy.

PATHOLOGICAL ANATOMY:

1. Early stage—increase of intermuscular fibrous connective tissue.

2. Later stage—connective tissue more abundant; some atrophy of muscles, fibres and fatty degeneration.

(Chiefly indebted for this data to F. E. Batten, M.D., F.R.C.P., London.)

PRESSURE LESIONS OF NERVES.

1. The resultant symptoms of severe cases of this are similar to nerve section, and are paralytic in nature, pain and hyperesthesia being usually absent.

2. Paralysis usually more marked than anesthesia.

3. Trophic changes are usually rare.

(Chiefly from an article by W. Thorburn, M.D., and R. T. Williamson, Manchester, England.)

Having now made a brief, and, I trust, concise review of the most prominent points relating to ischemia, I feel constrained to report to you a short account of two recent cases of this nature, on account of their aptitude to the subject, and the surprisingly favorable results attending my operative treatment of them.

Case 1.—On the 4th day of May, 1902, a schoolboy, aged nine years, and weighing 65 pounds, entered Chicago Hospital with the following trouble:

(a) Deformity of hand. The forearm, wrist and hand were crippled, and abnormal in size, shape and color. The whole extremity below the elbow was apparently much smaller than normal, and the fingers, which looked blue and felt cold, were flexed into the palm.

(b) Fixation. The fingers were not merely flexed into the palm, as already stated, but also there fixed. No effort on his part, nor considerable force by me, could effect but the slightest increased flexion or extension. Voluntary motion at the wrist, or supination or pronation, was extremely limited.

(c) Atrophy. The bellies of the muscles appeared to be entirely absent, except near the elbow. The skin hugged the

bones; the deeper soft parts were firm, hard and immovable. The circumference of the forearm was less than that of its fellow by about one-third.

(d) Paralysis. The hand was paralyzed as to motion, although the muscles responded to irritation and electricity near the elbow at the points where they were applied. When electricity was applied to the extensor muscles of the hand, no extension ensued of either wrist or fingers. Sensation of the fingers and hand was rather increased. Sensations of heat and cold were normal.

(e) Loss of function. The hand was useless for ordinary purposes.

History: Four years previously the patient had both bones of right forearm broken at the middle, which, when set, was put up with fingers flexed and bandages tight. When the splints were removed, seven weeks afterwards, and the condition of the limb discovered, he was brought to an eminent Chicago surgeon, who stretched the fingers, giving some improvement but no cure.

Diagnosis: Ischemic atrophy of flexor muscles due to pressure.

Advice: Operation.

Prognosis: Increased usefulness of arm.

Operation: An Esmarch bandage was applied in proper manner for the case. A long curved incision was made on flexor surface of forearm. All the muscles and tendons were found matted together by fibrous tissue. These were separated from each other, and the ulnar and median nerves were disengaged and stretched. Muscle-tendon splicing was done on all the flexors, in order that the lengthened tendons would permit of the extension of the fingers. The cavity of the wound was filled with sterilized olive oil around the tendons and nerves. Capillary drainage inserted; wound closed, and hand placed in hyper-extended position; held there by splints.

The operation consumed an hour and five minutes, under chloroform. The patient behaved well and reacted properly. Upon exposing the muscles and tendons their small size was

very obvious. In carrying out their isolation some difficulty was experienced in identifying one tendon from the adjacent one. The knife was constantly in use. Cleavage was impossible in the middle of the forearm, for here all semblance of tendon sheaths was gone. The tendons appeared longer than normal, and seemed to encroach upon the muscle substance. On account of the pressure of atrophy the muscles were small, firm and fibrous to a marked degree. The musculo-tendon splicing being completed, the hand and fingers placed in a hyper-extended position, I could not but remark upon the long and insignificant-looking threads, and express a very doubtful prognosis. The return of arterial blood into the parts after removing the rubber bandage did not clear away the paleness of the structures, nor my apprehension of their viability. The olive oil was used to prevent, if possible, an immediate glueing together of all the tendons again, and I feel sure of its benefit in this case, to the end desired. The median and ulnar nerves were here and there nodular, and in some places smaller than normal.

Post-Operative:—On the third day he developed a temperature which on the evening of the fourth day reached 104.4 degrees F. The wound was dressed and found all right. On the fifth day the temperature was down, but again rose rapidly. He had tympany and extreme tenderness in right iliac and hypogastric regions; leucocytes 30,000; also some diarrhoea. The area was again dressed and found in perfect order. He was then operated upon for appendicitis (acute obstructive variety), and that member was found inflamed, enlarged and obstructed. After operation, pain abated and temperature was lower for a few days, but on the fourth day following this last operation pyrexia and its concomitant symptoms returned, and more or less for two weeks, but not alarming. Widal reaction and diazo-reaction tests were both negative, and no abdominal spots appeared, although there were diarrhea and tympanites. Liquid diet was substituted, and quinine sulphate, gr. iii, every four hours and hydrarg cum creta gr. ii, every night, administered. By the twenty-third day the

patient was sufficiently recovered to return to his home. During his stay in the hospital his arm was dressed frequently and under passive motion slowly improved.

1. The wound healed by first intention.

2. Fingers easily straightened passively and almost to a complete degree voluntarily.

3. Can hold fingers completely shut passively, and has considerable flexor power.

BRITT, Ia., Nov. 28th, 1905.

Dr. A. H. Ferguson,
Chicago, Ill..

Dear Sir,—We send you by this mail two photographs of Bruce's hand, the best we can do. "He can straighten the fingers and can close them slightly only. He can hold the hand shut by using the thumb after he has shut it with the other hand. He uses the hand to write and do his school-work, but we do not think he has got as much use of it as you expected, still we think it is gaining all the time."

Yours very truly, M. E. TALCOTT.

Case II.—Mary H., aged 12 years, weight 80 pounds. Entered Chicago Hospital, November 5, 1904, with the following history, in part, viz.: Ten weeks previously the left humerus was fractured at the junction of the lower and middle thirds. The fragments were soon placed in apposition, and tight splints were bandaged on the entire arm and forearm, and left in this position for seven weeks.

Examination revealed a scar, one-half inch wide and three inches long, extending from the front around to the posterior surface of the arm, three inches above the left elbow joint The elbow joint was stiff and tender, and even moderate flexion impossible. There was a deformity at the wrist and hand consisting of marked flexion. The proximal phalanges were fully extended, and the two distal segments of the phalanges completely flexed. The forearm showed great atrophy, this being more marked in the region of the flexor bellies. She was unable of herself to adjust this malposi-

tion, and any attempt to correct it by forcible manipulation was not only painful, but entirely devoid of even temporary improvement, giving marked evidence of the matting together of the structures of the forearm. Sensations of heat and cold, muscular sense, and tactile sense were lost, except in the index and little fingers, and here they were imperfect and slow.

The hand was colder than its fellow in all probability showing vaso-motor interference.

Diagnosis: Ischemic atrophy due to tight splinting.

Advice: Operation.

Prognosis: Increased usefulness of arm.

Operation: Having applied an Esmarch bandage, an incision was made along the inner border of the biceps for the purpose of exposing the seat of fracture of the humerus and liberating any osseous or connective tissue adhesions which might have formed around the ulnar or median nerve, and at the same time to determine what damage, if any, had been done to these latter structures. On exposing these nerves, they were found to be normal in appearance, and the bone well united. A second incision was made along the outer surface of the arm, exposing the musculo-spiral nerve, which was thickened and bulbous. These incisions having been closed, the first incision was continued down the forearm and well into the palm. The flexor tendons, having been identified, were individually treated in the following manner: A longitudinal incision, four or five inches long, was made in each muscle and its tendon, cutting across one-half of the tendon from its continuity below, and then transversely severing the muscular portion of the other half above. These corresponding musculo-tendon halves were then temporarily united with fine catgut to maintain their identity. A similar procedure was followed on all the other flexors of the wrist and hand. They were then securely sutured in the extended position by means of three interrupted sutures in each musculo-tendinous structure. Although the wrist and hand were thus liberated, full extension was not possible until the nerves were separated from their surrounding adhesions. The median was atrophied to less than half its normal diameter,

below the elbow, and the ulnar nerve showed bulbous enlargements with atrophied intervals. The wrist and hand were now easily straightened. The skin was closed, and the forearm was drained in several places with strands of silkworm gut. Sterile olive oil was poured over the tendons. The dressings consisted of aseptic gauze next to the skin over which was placed an abundance of iodoform gauze. A plaster-of-Paris cast was then applied and the hand and fingers placed in hyperextension.

The operation was completed in one hour and fifty minutes. Anesthetics: Chloroform and ether. Pulse before operation, 70; during, 108; and after, 88. Hypodermoclysis of normal salt solution at conclusion of operation (500 c.c.).

Results: Union of skin by first intention. Chromoform catgut No. 0, not absorbed in three weeks.

REPORT SIX WEEKS LATER.

1. Tenderness in elbow is fast disappearing and flexion and extension are almost complete.

2. More vital activity is gradually coming into the hand.

3. Can immediately tell which finger is touched, showing a return of sensation.

4. Can pick up a small article, like a pin, after trying for a while, showing a return of muscular sense and co-ordination.

5. Fingers can be straightened and flexed to a considerable extent, and this power is increasing.

It is well to point out that the fracture was of the humerus, and the tight bandaging was on the forearm; the fracture united perfectly, and no damage was done to any of the soft structures surrounding it, but where the bandages were too tightly applied, atrophy, contraction and paralysis of the soft structures ensued.

In regard to fixed state in which the nerves were found, one can readily imagine how easily they could be ruptured by forcible extension of the fingers under an anesthetic, and irreparable damage done.

The last report was in November, 1905, a year after the operation. Then she had all the motions of the elbow, forearm, wrist and fingers almost complete, but not as strong as formerly. Sensation had returned to normal apparently, and she can readily distinguish between heat and cold. She no longer burns her fingers. If another case of this nature presents itself for treatment, I should rather choose to resect the bones that splice the tendons. Although the forearm would be shortened, the hand, etc., would be stronger. The tendons and nerves should always be liberated, and I think oil used.

LITERATURE.

Volkmann was the first surgeon to write on this subject and to point out the dangers to muscle following tight bandaging; too firmly applied splints and Esmarch's bandage too long in use. The damage done by these means became known by "Volkmann's paralysis," "ischemic paralysis," "ischemic atrophy," etc. Inasmuch as the muscles with their tendons and the nerves are the chief structures involved, the title of my paper, "Ischemic Muscular Atrophy, Contractures and Paralysis," may not be inappropriate. The older physiologists conducted some experiments on the influence on muscles when the arteries were tied—i.e., giving rise to paralysis, Haller, 1763, Stetson and Lesser. Kuhne concluded (a) loss of irritability; (b) paralysis of the muscle, and (c) rigor of the muscle to be due to inhibited nutrition.

Carl Ludwig proved that rigor mortis, death of muscle, was due to lack of oxygen.

Kraske has shown that muscles cannot stand the complete absence of the arterial blood current for six hours (Bernays).

The histologic changes have been studied by Kiedelberg, Kraske, Lesser, Bernays, Batton and others. Metchnikoff and Soudakewitsch established the fact that muscular atrophy in the strictest sense of the word should be ranged under the group of phenomena caused by phagocytes (collateral).

Fortunately, cases of ischemic atrophy and paralysis are rare. In 1888, at the German Society of Surgeons, held at Berlin, it is reported that Lesser saw seven cases; Bardenheuer,

four; Helferich, three, and Koing, seven cases. Since 1888 I have only been able to find reports of a few other cases, not including my two cases.

Dr. A. C. Bernays, of St. Louis, Missouri, published an able and excellent article in the Boston Medical and Surgical Journal, May 21, 1900, "On Ischemic Paralysis and Contracture of Muscles," from which I have extracted some of the data in this production. He does not report any of his cases. but makes mention of them. The first seven references here given were compiled by him.

1. Lansanne 1766, p. 544.
2. W. Kuhne: "On the Movements and Changes of the Contractile Substances," in the Archives for Anatomy, Physiology, etc., edited by Reichert and Du Bois-Reymaud.
3. Pitha-Billroth: System of Surgery, VII.
4. Volkmann's Contributions to Surgery (Centralblatt f. Chir.., 1881, No. 51, etc.).
5. Kraske: Central. f. Chir., 1879, No. 12.
6. Lesser: The Archives for Experimental Pathology and Pharmacy, Vol. VIII.
7. See Transactions of German Society of Surgeons, 1888, XI, Berlin.
8. Jackson: Boston M. and S. Journal, July, 1838.
9. Dwight: Boston M. and S. Jour,. Oct., 1838..
10. Gross: Die Krankhaften Geschwulste, Band I, S., 482.
11. Page: Lancet, Jan., 1900: "Volkmann's Ischemic Paralysis."
12. Bernays: Boston M. and S. Journal, May 24, 1900.
13. Wallis: The Practitioner, 1901, p. 429.
14. Metchnikoff and Soudakewitsch: Annals de l (Institut, Paris, Jan., 1892.
15. Donald Fraser: Glasgow Medical Journal, July, 1892, quotes a case of atrophy of the muscles of both arms in a man who had suffered from an accident in which both these members had been stretched for twenty minutes. (Mentioned here for collateral study.)
15. Lemoine: Lyons Medical, Lyons, Dec., 1891, reports the case of a man in whom atrophy of the deltoid biceps, triceps and supinator longus muscles was caused by the compression of a strap used for carrying parcels.. (For collateral study.)
16. Littlewood: Letter to Lancet, Jan. 5, 1901, expresses the opinion that the term "ischemic paralysis" is a misnomer, the contraction occurring after elbow injuries in children being really due to the contraction of cicatricial tissue, the result of laceration of the flexor muscles. A swelling in the upper portion of the flexor muscles of the forearm has been present in all cases which have come under his notice.. Splint pressure and splint sores are in no way related to the production of the deformity. (1 Year-Book, Goul, 1902). (For collateral study.)

*MYOCARDIAL DISEASE FROM THE CLINICAL STANDPOINT

BY H. B. ANDERSON, M.D.; L.R.C.P. (Lon.); M.R.C.S. (Eng.)

TORONTO, ONT.

Associated Professor of Clinical Medicine of Toronto University, and Attending Physician Toronto General Hospital.

In response to your invitation to read a paper before your Society, I have selected a subject which has impressed me as being of great importance to us as practitioners—viz., "Myocardial Disease from the Clinical Standpoint."

Hippocrates thought that the heart muscle could not be the seat of disease, though both Celsus (30 B.C. to 50 A.D.) and Galen (131 to 210 A.D.) recognized the possibility, the latter describing suppurative myocarditis, which he considered to be the disease of gladiators; Morgagni (1682 to 1771) and his contemporary, Senac, both described myocardial lesions. At the end of the eighteenth and in the early part of the nineteenth centuries, disease of the heart muscle received the attention of many of the famous physicians of the time, among whom were Corvisart, physician to the great Napoleon; Laennec, the father of auscultation; Louis, the great French physician of the time; Stokes, Heberden, Jenner, and others, whose names are familiar to every student of the history of medicine. These great clinicians not only described the post-mortem appearances presented in certain cases of myocardial disease, but attempted to correlate them with the signs and symptoms observed during life.

After this time, for a period, it is to the pathologists that we are chiefly indebted for the advancement of our knowledge of the subject. Rokitansky studied both acute and chronic inflammations of the myocardium, recognized their relationship to cardiac dilatation and rupture, and did much to advance our

*Read before the Fifth Branch of the Michigan State Association, Grand Rapids, February, 1907.

knowledge of the gross pathology of the condition. Virchow's work is especially important, because it included a careful study, both microscopic and chemic, of the changes in parenchymatous myocarditis. This was the beginning of an era of more definite and accurate work, which has since been continued and elaborated by a host of investigators in all parts of the world. Thus, from the pathological side, diseases of the myocardium have been very carefully worked out, with a completeness of classification, a definiteness of description, and an appreciation of importance, which stands in marked contrast to the dearth of information that has been obtained from the clinical side. The pathologists have shown the etiological relationship of many other conditions to myocardial disease, but the clinician has too seldom borne this relatonship in mind. In fact in probably no other important class of diseases is there such a disparity between the well established facts of the pathologist and the practical application of this knowledge by the clinician, whether it be in the management of these diseases or in teaching students their frequency, importance and means of recognition.

This is not due to failure, from the academic standpoint to appreciate the essential importance of the cardiac muscle and the serious phenomena which must ensue when this tissue becomes weakened by disease. No one will deny that it is on the cardiac *muscle* that the function of the organ depends—that the valves and orifices act only in a mechanical and subsidiary way in *directing* the current which has its *origin* in the muscular contraction. Valvular lesions at most interfere with the distribution of energy; myocardial disease interferes with its *origin*.

Considering therefore the relative importance of the tissues involved, it seems remarkable that in Allbutt's excellent System of Medicine four times as much space is devoted to pericardial lesions and nearly eight times as much to endocardial as to myocardial, and this is only a fair example of what may generally be found in text books of Medicine and special treatises on Heart Diseases.

It would be instructive if one could state in figures the relative amount of time devoted by teachers of clinical medicine to valvular as compared with myocardial lesons. I may be wrong, but I believe the figures would show an even greater failure to emphasize and impress the relative importance of the latter. It would often appear as though the heart was studied, as if its chief components were lining, valves and orifices, the parenchyma being a negligible quantity. And this disparity is not explained by a greater frequency of disease in the pericardium and endocardium. As a matter of fact, the myocardium is more often affected than either. Thus Schott gives the relative proportions as 505 myocardial to 245 endocardial; and Babcock says "by far the largest number of persons who, at or after middle age, begin to manifest signs of cardio-muscular disturbance, are *not* the victims of valvular disease."

Myocardial lesions are therefore not only more important from the nature of the tissue involved, but also on account of their greater frequency. In this connection, it must not be forgotten that the coincident condition of the cardiac muscle is a factor of equal, if not greater, importance than the valvular lesion itself in determining the outcome of any case of valvular disease.

It is therefore unfortunate that the student of medicine should go into practice with an exaggerated idea of the importance of valvular disease, and a very hazy notion of myocardial.

Auscultation as an aid to cardial diagnosis has not proved an unmixed blessing. Properly used, with a clear understanding of its limitations, auscultation is undoubtedly of great value. But, after all, it deals with sounds or murmurs, the interpretation of which often requires the widest knowledge, the greatest care and the soundest judgment without the exercise of which, ausculation may be worse than useless—it may actually be misleading. We all know that the presence of murmurs does not necessarily indicate a diseased heart, nor, what is even more important to bear in mind, their absence does not necessarily indicate a healthy heart. There is absolutely no warrant for a common inference that the heart is normal because the

sounds are clear. Auscultation of itself is only of limited service in enabling the clinician to arrive at a conception of the condition of the heart muscle. Moreover, by centering the physician's attention on the valves and orifices, and diverting it from the heart muscle, auscultation has impeded rather than advanced our clinical knowledge of myocardial conditions. Before the days of auscultation it was the great clinicians, Corvisart, Leenac, Louis, Stokes, Heberden, Jenner and others who made the most valuable contributions to our knowledge of the subject. Since that time, the clinician has devoted too much attention to the refinement of auscultatory diagnosis, the search for murmurs and their interpretation, and the study of myocardial disease has too often been neglected.

Huchard's contention, endorsed by Lindsay, "That since Laennec's time we have all been too much the slaves of auscultation—too much under the tyranny of murmur," must express the opinion of those who have studied the subject, not only at the bedside but in the laboratory and the morgue.

For clinical purposes, myocarditis may be divided into two broad classes, acute and chronic. From whatever causes the conditic arises or whatever the pathological cardiac changes which may be present, the important clinical manifestation is *heart weakness* or *muscular insufficiency* and the symptoms and physical signs are practically all referable to this factor.

As ordinarily seen in practice, acute myocarditis follows one of the acute infective diseases—diphtheria, influenza, scarlet fever, typhoid fever, pneumonia, septicaemia, rheumatism or even measles. The soft, pale, flabby, friable heart found at autopsy in fatal cases of these diseases has been commonly recognized by morbid anatomists since the time of Morgagni.

From the fact that extensive myocardial involvement is commonly found, post-mortem, in cases where death has been due to other causes, without any manifestations having appeared during life to indicate its presence, it is impossible to say to what extent the heart muscle may suffer in ordinary cases of these diseases going on to recovery, without symptoms of cardiac weakness appearing.

That symptoms do not always arise in cases of even marked myocardial involvement is not remarkable when we consider the extraordinary reserve force the organ possesses. "Even though experimentally the amount of blood in the ventricles during diastole be increased sixfold, they are able to empty themselves almost completely and a doubling of the arterial pressure does not cause serious embarrassment." (Krehl, Clinical Pathology, P. 28.)

There are, however, good reasons to believe that the heart muscle is injured to a greater or lesser extent in every case of acute infective disease, *as an essential part of the disease,* the degree of involment varying with the nature and intensity of the attack, its duration, the previous condition of the heart and many other circumstances connected with the individual case. In the milder grades of involvement, the case recovers without any clinical evidence of its presence, but it is of the utmost importance for the clinician in the management of these diseases to keep the cardiac phenomena in mind, not as unusual occurrences or as complications, but as an essential part of the disease. This appears the only safe rule in order to avoid consequences, in many cases, fraught with the greatest danger.

In typhoid fever every clinician has in mind the probability of intestinal ulceration and the consequent liability to perforation, and in his management of the case, takes all possible prophylactic measures to avoid its occurrence. He does this, not from the fact that perforation is of such common occurrence or that symptoms of it are present in a given case, but because from his knowledge of the pathology of the disease, he recognizes the presence of the morbid opportunity—a liability to this accident. This, I believe, is the only safe and proper clinical attitude to assume with regard to the cardiac manifestations of these diseases. Being on guard and interpreting symptoms in the light of pathological knowledge, it is unnecessary to urge the necessity for redoubled care in case where any symptoms of myocardial weakness frankly manifest themselves.

A mere enumeration of the pathological changes in the heart in fatal cases of diphtheria and other infective diseases,

sufficiently impresses one with their serious significance. Thus cloudy swelling, hyaline and fatty degeneration, vacualation and segmentation of cells, and fragmentation of nuclei have been found. Of the interstitial changes, swelling of the intima of the vessels, hyaline degeneration of the media and leucocytic infiltration of the adventitia have been described. Numerous capillary hemorrhages occur at times as well as hyaline thrombi in the small vessels. Degenerative changes have also been described in the cardiac ganglia and vagus nerve.

While it is not to be supposed that all these changes occur in every case, still the possibility should be kept in mind, and their consideration will impress one with the length of time which must elapse before such extensive changes can disappear and the heart be restored to a normal condition, after the infective diseases.

Time will not permit of my entering into a discussion of the cardiac manifestations in the individual diseases, but I shall refer to some of them again in connection with the notes of cases which have recently come under my observation.

1. About a year ago I was called to see a girl, A.M., aged 8 years, who had been ill for some days with extensive nasal and pharyngeal diphtheria. She was very ill, temperature 102 2-5, pulse rapid. Under full administration of antitoxin the symptoms rapidly improved and the membrane disappeared. Her general condition was satisfactory and in ten days she appeared well on the way to recovery. She had been kept in quiet as far as possible and not even allowed to be propped up in bed. One morning Dr. Tweedy of the Toronto Isolation Hospital, where she was a patient, telephoned me that the patient felt cold and looked pale. An immediate visit was paid. On examining her, I found the skin cold; she presented an extreme pallor, the pulse was very rapid, small and extremely weak, and the cardiac impulse was scarcely perceptible. The first sound at the apex was short, weak and valvular in character. In spite of measures for her relief, she died in a few hours after the onset of symptoms. This was an extreme though not unusual case, developing without any premonitory symptoms and I know of no means by which the fatal issue

could have been averted, unless by earlier treatment at the beginning of her attack of diphtheria.

II. In this case the outcome was more fortunate and I believe only the extreme care of the patient saved her life.

Miss H., a nurse, as the result of injudicious exertion, suddenly developed all the symptoms and physical signs of extreme myocardial involvement with dilatation about two weeks after a mild attack of diphtheria. Almost continuous rest in bed for six months was necessary; she was then wheeled about in a chair for four months more; then very gradual exercise on the level was permitted for several months more, and it was a year and a half before she was allowed to return to her professional work, and then only with much trepidation. The apex beat is still an inch outside the nipple line and the first sound rather weak and valvular, but with the exercise of continuous caution she has now gone for over two years without any symptoms. By the avoidance of sudden or prolonged exertion, all depressing influences and any of the acute infections, this young woman may go along comfortably for years, but her narrow margin of cardiac reserve must place her in constant danger of muscular insufficiency.

According to Romberg and Schmaltz, in diphtheria, *symptoms* of acute myocarditis appear in from 10 to 20 per cent. of the cases—usually in the second or third week, but in rare instances as late as the tenth. In some cases, as you well know, the patient may fall back dead without either symptoms or physical signs having occurred to indicate myocarditis. This fact impresses one with the unreliability of clinical signs alone and that a broad view of the pathology of these cases in general is the only safe guide in individual cases.

In typhoid fever the myocardial changes are usually less extensive than in diphtheria. Symptoms may arise either at the height of the disease or during convalescence. Rapidity, undue weakness or irregularity of pulse, not otherwise explained; weakened impulse and a short, weak, first sound, valvular in character, should always arouse one's suspicion. The importance of the pulse rate as an index to prognosis was insisted on by Liebermeister, who stated that in cases where the

pulse rate exceeded 120, the mortality was 40% , and when 140, 80%.

Usually, however, the prognosis is good, Curschmann stating that he has never seen a case of myocarditis wth dilatation following typhoid fever. Other observers, however, have reported cases, and I have notes of three cases, all in physicians. who had previous to their attack been in the best of health. In one of these, the patient's apex beat is outside the nipple line and, although ten years have elapsed since his illness, he has never been able to undergo severe exertion. The other two both proved fatal—in one seven months after convalescence death occurred suddenly, following heavy lifting the previous day; in the other case the attack of typhoid had been of a mild type but ever-after it the patient was incapable of exertion without breathlessness, precordial distress and occasional attacks of syncope. His pulse was slow and irregular but no murmur ever appeared. After hurrying up a flight of stairs one day, he was suddenly seized with weakness and fainting. When seen by Dr. J. T. Fotheringham, to whom I am indebted for the notes of the case, the cardiac impulse was weak, fluttering, diffuse, and the pulse imperceptible. Death occurred a week later. Autopsy showed marked hypertrophy of both sides of the heart, the muscles being pale, soft and flabby. No valvular disease was present.

In my experience, influenza is particularly liable to be followed by myocardial weakness, especially when it occurs in those elderly persons whose occupation subjects them to severe exertion. The disease is often the determining factor of muscular insufficiency in persons with previously well compensated cardiac lesions. From a number of instances which have come under my notice during the past few years, the following case, at present under my care in St. Michael's Hospital, is especially instructive.

III. A. W., paperhanger, aged 41, was referred to me by Dr. W. J. Fletcher of Toronto. Fourteen years ago he was confined to bed for eight weeks with rheumatism. No valvular lesion developed and he had no shortness of breath or other symptoms following his attack. He was in good health, fol-

lowing his occupation until February, 1905, when he had an attack of influenza, which laid him up for ten days. On attempting to return to work he found himself short of breath, weak and quite incapable of exertion. He continued to go about, but his condition grew steadily worse. I saw him first in November, 1905. He felt very ill, weak, had continual shortness of breath, was very nervous and had been suffering from fainting spells. The features were turgid, he had slight cyanosis of the surface of the body generally, cervical veins were prominent, breathing was of the Cheyne-Stokes type. Physical examination showed enlargement of the precardial area, apex beat in the sixth interspace, 1 inch outside the nipple, impulse very weak and diffuse. There was increase of cardiac dullness upwards, and to the right and left of the sternum. The first sound at the apex was very weak, short and valvular in character, the second sound being much more distinct than the first. No murmurs were present. The Liver was greatly enlarged.

Under complete rest, careful diet and cardiac tonics, marked improvement soon took place. Impatient of his restricted diet, he prevailed upon some unwise friends to smuggle in sweets, etc., for him to eat. This brought on a persistent attack of vomiting during which rectal feeding was necessary. All the cardiac symptoms immediately became aggravated, a condition simulating heart-block developed and a fatal termination seemed imminent. After the subsidence of the vomiting improvement again rapidly took place. The impulse became much more regular and stronger, the apex much less displaced and the first sound longer, stronger and with more of its muscular quality. The Cheyene-Stokes breathing, venous turgidity, shortness of breath and insomnia all disappeared and the patient, claiming he was perfectly well, against advice, got up and in a few days left the Hospital, after having been about two months under treatment. He soon returned to work and for a week or so all went well. Then symptoms began to recur and in three weeks he was forced to give up again. About ten days ago he returned to the Hospital under my care in practically the same condition as when I first saw him, except that he

now had a faint, soft systolic murmur. Under rest, etc., he has again rapidly improved.

This case to me has been one of extreme interest. I believe that some chronic myocarditis with hypertrophy resulted from his rheumatism fourteen years before, thus rendering the organ more vulnerable to the influenzal poisoning, which was directly responsible for the cardiac breakdown. The benefit of rest and treatment was very apparent and one is led to speculate as to how far improvement might have been possible had ideally proper management been feasible for, say, a year. Although looking so unpromising, I have seen such remarkable improvement take place in the most unlikely cases that one is led to take a much more hopeful view of the possibilities of treatment.

IV. Myocarditis, following chorea. For the notes of this case I am under obligation to Dr. T. H. Stark of Toronto.

E. W., aged 11 years, a fairly robust and well developed girl, seven years previously had suffered from a right sided pneumonia with pleurisy, followed by some retraction of the chest. Otherwise the recovery had been complete. Paternal grandmother had died of heart trouble. In June and July, 1905, she suffered from an ordinary attack of chorea, during which she was confined to bed for three weeks. No valvular disease developed and apparently she made a satisfactory recovery.

September 1st, Dr. Stark was sent for. Patient had been complaining of shortness of breath on exertion and the legs began to swell. A mitral systolic murmur was now found to be present. In spite of treatment she gradually grew worse, tremendous oedema of the lower extremeties, ascites and oedema of the lungs, with hypostatic pneumonia, developed.

I saw her in consultation on November 19th. The heart's impulse was weak, diffuse and irregular, the apex beat being out to the axilla. The whole precordium was faintly throbbing. A distinct mitral systolic murmur was present. The patient died on November 21st and an autopsy was performed the following morning. The heart showed some hypertrophy with dilatation of both sides, weight 8 ounces. The muscle was pale.

very soft and flabby. Subsequent microscopic examination showed infiltration of leucocytes and slight haemorrhage into the interstitial tissue, and vacuolation and albuminous and fatty degeneration of the muscle cells. The normal striation of the muscle had almost disappeared.

No more serious error could be made than being misled by the presence of the murmur to look upon this as a case of valvular disease. As explained by Knehl, the valvular incompetency was due to lack of constriction of the mitral orifice by the muscular band surrounding it, and possibly to changes in the papillary muscles interfering with their normal action in controlling the valves. Such examples of relative incompetency apart from valvular disease are common and, no doubt, explain many of the cases of murmurs disappearing under rest and treatment.

V. That even measles may be followed by serious myocardial disease is illustrated by the case of a domestic, 28 years of age, recently under my care in the Toronto General Hospital.

Until four years ago she had been in good health. After a rather severe attack of measles she developed all the symptoms of cardiac insufficiency, which persist to the present time. She is quite incapable of exertion, feels weak, has fainting spells, feet swell, pulse is rapid and very small, at times scarcely perceptible, slight cyanosis; cardiac impulse very faint, and displaced slightly downwards and outside the nipple line. Six weeks' rest and treatment produced very little improvement. The ultimate outlook is bad.

There is no need to multiply examples in connection with other infective diseases, but rheumatism is deserving of special mention.

Here we should remember that the toxines act on the myocardium directly and that this may be involved without any appearance of endocardial or pericardial trouble. I have at present a case of this sort under my care. In cases, however, where these membranes are involved, the myocardium suffers not only directly but as the result of the extension of the endocarditis or pericarditis to the adjacent heart muscle.

I wish, therefore, to emphasize the fact that the coincident condition of the myocardium is a factor of greater importance than the valvular lesion itself in determining the prognosis in a given case. In this way only can we explain the marked variability in course and the uncertainty of the outcome shown by patients with similar valvular lesions.

In the management of the acute infective diseases, therefore, the clinician should always keep the following possibilities in view:

(a) That *myocarditis* may give rise to serious symptoms either at the height of the disease, during convalescence or in after life.

(b) The *greater* danger, often determining cardiac breakdown, in persons *previously subjects of valvular or muscular lesions,* and the necessity for using all available measures to protect the heart in such cases.

(c) The great length of time which must elapse to allow of regenerative changes and consequent cure.

Chronic Myocarditis.—This condition is common and may make its appearance in various ways.

(a) Occasionally as a sequel to acute myocarditis.

(b) Most commonly as one of the manifestations of the senile heart—from sclerosis of the coronary arteries and consequent interference with the nutrition of the organ.

(c) From excessive heart strain due to occupation, general arterial sclerosis and high blood pressure; in cases of obesity.

(d) Toxic conditions, as in syphilis, gout, phosphorus poisoning, in the various anaemias and cachexias, tend to chronic myocardial degeneration. Excess of tea, coffee, tobacco and alcohol, especially beer, is productive of myocardial disease.

(e) Unusual mental stress and worry is a frequent concomitant factor.

(f) Very frequently there is a combination of these conditions, as in persons who have suffered from rheumatism or other acute infective diseases, who are poorly nourished and partake of alcohol and tobacco to excess, whose occupation subjects them to intermittent severe exertion or to more prolonged

laborious efforts, or in those who have undergone prolonged worry.

(g) Hereditary influences are important, some families being prone to early cardiac breakdown.

Owing to the great amount of reserve strength, above the requirements of ordinary life, extensive myocardial disease may be present without the appearance of any symptoms. Physical examination may reveal a greater or less degree of hypertrophy, with displacement of the apex beat; the sounds are clear, with possibly weakening of the first sound and accentuation of the aortic second sound. The capacity for hypertrophy is greater in younger persons owing to better nutritive conditions, so that myocardial insufficiency is likely to show itself with *lesser degrees of hypertrophy in the senile heart*, especially if the general nutrition is poor. This is a point of much practical importance. It is therefore all-important to recognize in advancing years this gradually decreasing reserve and consequent lessened capacity to accommodate for excessive or prolonged efforts. From a consideration of the etiological factors, it will be noted, comes the limitations of the physician's power to control the patient's environment and thus ward off trouble.

The immediate cause of the cardiac breakdown is frequently excessive strain, abuse of alcohol, lack of care following acute illnesses, as influenza, and other avoidable causes. Some patients with myocardial insufficiency recently under my care illustrate these points—as the case of a hotel porter, whose symptoms arose from carrying heavy trunks upstairs; a gentleman of 65, due to a hurried ten-mile walk; in a farmer, aged 70, immediately following chopping down a tree and sawing it into blocks; in a drover, aged 65, after extreme exertion running after cattle; in a woman previously in apparent health, who became very obese following the climacteric; in a gentleman of 65, a heavy smoker and a strenuous business man who, after an attack of influenza, developed a general acute eczema, followed by cardiac symptoms. In none of these cases was there any valvular lesion. They all developed shortness of breath, cyanosis, especially of the tips of the nose, incapacity for exer-

tion and afterwards Cheyne-Stokes breathing. The cardiac impulse was weak and diffuse, the apex displaced downwards and outwards, the first sound weak and valvular, the second aortic sound usually accentuated. In all these cases proper prophylactic measures would probably have avoided the rupture of compensation.

A patient, aged 25, a driver of a brewery waggon, at present in St. Michael's Hospital, with well compensated double aortic and double mitral lesions, on whom I was giving a clinic. asked me to guess the real cause of his trouble. He then informed the class that for periods he would drink as much as a gallon and a half of beer daily and smoke to excess, and this was always followed by symptoms of heart trouble which would disappear some time after he sobered up and would not reappear until another debauch.

It is therefore well to remember that the "beer heart" may develop outside of Munich. As to prognosis in chronic myocarditis, it will readily be understood that from their nature the pathological changes in the heart are mostly beyond the remedial effects of therapeutics. Our chief hope lies in the great reserve strength possessed by the heart in our partial control over the amount of work which the organ has to perform, and in our power to protect the organ from the deleterious effects of some of the myocardial poisons.

It is often comforting to see, by the exercise of care and judgment, on what narrow margins many of these patients live for years in comparative comfort.

As to treatment, much of this has already been indicated. prophylaxis is of greatest importance.

After the acute infective diseases in the subjects of valvular disease or arteriosclerosis, and in advancing age, the necessity for the avoidance of severe exertion or any excess of effort; the early recognition of hypertrophy, weakening of the first sound or marked accentuation of the second aortic sound, irregularity or intermitting of pulse; undue breathlessness on exertion, etc.

The avoidance of excess in tobacco, in eating or drinking is very important; also of mental overstrain and worry.

A holiday with a change and complete rest from business with baths, etc., often has a most beneficial effect.

Strychnine is one of the best remedies given frequently and for long periods. Nitroglycerine and the nitrites are often of value to lower arterial tension; in some cases with cardiac asthma, Morphia renders splendid service. Musser recommends pulv. opii, and I have found it very useful. Aromatic spirits of Ammonia, Caffeine and Camphor are without danger and often useful in cases of dilatation with urgent symptoms; also Oxygen inhalation. Digitalis and Strophanthus may be of service but one has to be guarded in their use. The Schott treatment where it can be properly carried out often gives excellent results.

I have seen the best results in intelligent and submissive patients who, in addition to medicines, follow out the minutest details of their general management.

CLINICAL MEMORANDA

Diaphragmatic Hernia.

The following case is reported only on account of its apparently rare occurrence, as Holt in his diseases of children gives no idea of its frequency but mentions one only, that being a case of Gautiers in which he states that "nearly all of the small intestines, the stomach, spleen and pancreas were found in the left chest," as my case was as interesting if not more so than Gautiers' I deem it worthy of reporting.

On the morning of the 28th ult. I answered a call to a case for which I was engaged and was told the waters were escaping, no pain, the patient, a strong, healthy woman, was confined 1st of April, 1906, and gave birth to a fine healthy male child. During pregnancy of this her second, she was troubled very much with heartburn or acidity of stomach and remarked at different times of the excessive movements in utero, as compared with her first pregnancy, the membranes ruptured some two weeks earlier than date expected for confinement, but aside from a rather tedious first stage the delivery was normal, male child weighing eight pounds, well formed and nourished so far as external appearance was concerned. After birth the child did not seem to be able to perform the act of respiration, instead of a proper inspiration there was no more than a convulsive contraction of the muscles of respiration, when circulation had apparently ceased I divided the cord and endeavored to assist the child to respire by all means I could think of, but with no avail. I noticed the pulsation of the apex of the heart which was just a little to the left side of the right nipple and a little below, and I very plainly made out the heart as altogether on the right side, the heart continued to pulsate for 45 minutes. The child at no time presented that blue cyanotic condition as seen when respiration is once estab-

lished and ceases before the heart ceased to beat for any length of time. I being interested in the case on account of the position of the heart, and the entire inability of child to respire asked for and obtained permission to hold a post-mortem examination, and in the presence of Drs. Braithwaite and Withrow I lifted up the chest wall when we found the heart entirely on right side, and the thymus gland which seemed enlarged nearly all on the right side, the left side was filled with the small intestines and other viscera, the veriform appendix lying next the chest wall on the left side up in the apex of the left thoracic cavity. As the hour was late I postponed any further examination until the following morning when, with Drs. Biggar and Withrow, we made a more minute examination, and we found about four-fifths of the intestinal tract in the left thoracic cavity as well as the stomach, spleen, pancreas, left lobe of the liver, ascending and transverse colon and vermiform appendix as before mentioned. The left lung was only rudimentary, being about three-quarters of an inch long and three-eighths of an inch wide and one-eighth of an inch thick. The right lobe of the liver seemed considerably enlarged even for foetal life, and occupied the abdominal cavity, rendering the same quite prominent. The opening through the diaphragm on left side was large enough to admit four fingers, and was no doubt congenital as the lung on the left side had been pressed upon from an early period of foetal life.

Although one might after this experience be able to diagnose the condition present, I cannot see that further than that, the experience would be of any benefit to the child who had been so unfortunate in the early weeks of its foetal career, but the case was interesting to me and seemed to be to the medical men who saw it, and I report it hoping that it may be interesting to your many readers.

ALEX. FORIN, M.D.

Edmonton, Alta., Jan. 7, 1908.

A Case of Typoid Fever in which Antistreptococcic Serum was Used.

Patient first seen Sept. 30th, 1907, complaining of alternating shivering and fever in his bones, aching, severe headache, restlessness, loss of appetite and very thirsty.

Gave a history of feeling ill for nearly two weeks, gradually getting worse, at least he was compelled to give up work. As a result of examination I diagnosed Typhoid Fever about the end of the second week. Temperature, 103; pulse, 80; respiration, 24.

Under fresh chlorin mixture internally and cold sponges the temperature gradually fell, until on Oct. 10th, temperature was 98 4-5 in a.m., and 100 in p.m., and the same on Oct. 11. On Oct. 12th, the patient had a slight chill; temperature ran up to 102 4-5 in the evening accompanied by a stitchy pain in the right side along the lower border of the ribs. Hot fomentions were applied over seat of pain, which gave relief and the temp. fell steadily during the 13th, till on the 14th it was 98 2-5 in a.m. and 100 in p.m. On the morning of the 15th, it was up to 99 and 101 4-5 in the evening, the conjunctiva slightly Icteric, stools constipated and grayish, clayey color. Saline purgations were given which were effectual, but the Jaundice spread over the body and became very intense during the 16th. During the day the patient had a severe chill and in the evening the temperature was 103 4-5. On Oct. 17th the a.m. temperature was 102, pulse small and weak, cheeks sunken and features pinched, and altogether his condition appeared to be very serious. Jaundice was intense, severe pain in the region of the Liver and abdomen slightly distended, the Liver dullness did not appear to be increased, but in the region of the gall bladder there was a very tender globular swelling which extended to within an inch of the Umbilicus, which was believed to be the distended gall bladder.

Believing that the case was now one of Septic Absorption from the ulcerative processes in the intestines, and that the Streptococcus is usually present on such occasions, having on several other occasions seen such gratifying results from the use

of Streptolytic serum I decided to administer it; as the case appeared urgent I decided to give a large initial dose. Accordingly 40 c.c. was administered at 9 a.m. of the 17th, when I called at noon his temperature had fallen to -100 3-5, the patient being then very comfortable, tenderness and dullness much reduced and the anxious look had gone from his face. He had slept most of the interval. I now administered 20 c.c. of the serum and at 6 p.m. the temperature was 98 4-5; at 8 p.m. the temperature was 99 4-5; at midnight the temperature was 102, when the serum was repeated. On Oct. 18th, the a.m. temperature was 97 2-5, and p.m. temperature was 98 3-5. During the day two more doses of 20 c.c. each of serum were given as a clincher. The jaundice was greatly reduced, the tenderness and dullness almost entirely gone and the patient complained of being very hungry. During the night of the 18th the temperature went up for a short time so another dose of the serum was administered on the morning of the 19th, The temperature remained normal all day and no serum was given until the evening of the 20th, when the temperature went up to 102 at p.m. and 20 c.c. of serum was given, another dose being given at noon on the 21st as a preventative. After this the temperature remained down and the serum was not repeated.

The point I wish to emphasize is the rapid and marked improvement in the patient's condition after the administration of the serum and although the temperature rose again after the administration of the serum the profound Toxæmia, Jaundice and other symptoms of obstruction of the bile passages rapidly and steadily decreased. The Urine increased in amount and the bowels became active and the stools normal in color and consistence. No unpleasant symptoms occurred except a moderate Urticaria which subsided in less than 24 hours.

The further progress of the case was uninterrupted.

Regina, Sask. D. Low, M.D.

WESTERN CANADA MEDICAL JOURNAL

Editorial and Business Offices
8 Commonwealth Block, Winnipeg, Man.

EDITORIAL

Review of Medical Conditions in the West.

The material progress in Western Canada has been so great during 1907 that the country has even been able to rise superior to an exceptionally severe winter and a financial panic. Such a materially satisfactory state of affairs cannot, however, be permanent unless the intellectual keeps pace. To expect our new territory to be equal in this important matter to older ones would indeed be absurd, but the question is, are we "sailing on" and in the right direction! The part of Western development that interests us most is of course the medical. What facts have we to adduce that our profession has also moved forvard? Several: A great advantage of having facts fully recorded in a journal of our own is that we can look back and see what has been done. We may note as one point that today the rest of the medical world seems

to consider our Western affairs of some real interest. This was hardly so a year ago. In an Eastern journal, January, 1907, one finds only four little items devoted to Western medical matters; but in the same journal, December, 1907, there are twenty-one items relating to the West, and some quite good sized paragraphs. Every journal published now, whether in Canada, the States or the old country, knows that Canada West is just as anxious for a high standard of efficiency in the medical profession as in other parts of the world.

Regarding Progress.—Reading over recorded work of the year one fact impresses us—the work accomplished by the Medical Health Officers, the result of which is a greatly improved health record and lower mortality, and this in spite of the suffering caused by last winter's severity. No doubt the various lectures given on Public Health have been of immense benefit. It is of little use to stand and rail when one hears of absurd talks being given by ignorant people on such diseases as Smallpox, Typhoid, etc. The right course is for thoroughly qualified men to instruct the masses on such subjects. A great help to the intelligent appreciation of Hygiene, etc., throughout the West is that the public is not ignorant, but is eager to learn how to improve conditions in life. The crowded audiences found at most lectures are a proof of this. Let us hope that in 1908 every district will have lecture courses.

Another point to note: Much nonsense is written in the daily press, etc., regarding medical matters—strange reports of marvelous operations and wonderful cures, etc., which have often only a grain of truth. What seems a very wise suggestion has been made by one of our subscribers, namely, that our profession should have a press censor appointed by the Societies or Colleges of Physicians and Surgeons, whose duty it would be to watch the pres and when necessary correct any erroneous statements. The more the public is educated in health matters, the

easier and more successful the work of the medical man. One thing is certain, the daily press prefer to publish correct statements regarding health matters, and no doubt are willing to co-operate with us in educating public sentiment. This has been shown in the way some medical editorials have been referred to.

Doubtless, a weak point is the accurate recording of vital statistics. Progress has, however, been made even in this respect. At the beginning of the year, it was difficult to get statistics regularly from some districts; now many of the towns send them out every month.

The accurate reporting of infectious diseases to the health departments still leaves much to be desired, judging from some Medical Health Officers' reports. One great cause of the difficulty of enforcing the laws regarding public health matters is the fact that such are under the control of the Minister of Agriculture, who most certainly devotes his best energies to agricultural interests. Here is a great work for our profession, viz: to educate public opnion to the very obvious fact that agriculture is subservient to public health, and prove to the people that to have a medical representative on every cabinet would be for their own welfare.

Another point for our consideration is why are so many patients sent distances for treatment when we have with us men who have not only been educated at the best Canadian Medical Schools, but have spent time and money to still further perfect their knowledge by taking post graduate courses in the States, the old country and Europe. Not flying visits, but often one, two, three years and more, and have returned with a proof of their work in the higher degrees obtained abroad. What more can be done by a man? But, alas! how true! "A prophet is not without honour except in his own country." So these earnest students are passed over while patients whom they could

skilfully treat and with less expense to the patient are sent to the "far fowl with the fair feather." Where better treatment can be given to our patients by leading men in other countries, we should not be true physicians if we did not advise them to *go and get advice of these men,* but we refer to many other cases, and only suggest that before putting patients to the great expense of going far afield the family physician should first enquire into the records of skill, experiences and degrees of our own Western men. To the man who would say there is no great skill in the West, the answer that comes to one's mind as suitable is found in Osler's *Counsels and Ideals,* "Ignorance is at the root. When a man talks slightingly of the position and work of the profession in any country.....in the words of the Arabian proverb, 'he is a fool—shun him.'"

However, the greater mixing in associaton work and a more accurate knowledge of our fellow practitioners should in time prove there are some "good men in Gath," and when a man realizes this, let him remember that always those of his own house should come first, not (please do not mistake) because of the material side, but because if *we* do not respect our own men, how can we expect others to! Let us, then, resolve to be generously ready where we have ability and experience to give it recognition and support, and also watch that any original research work done receives proper notice.

We suffer from many disadvantages at present. These often prevent study and time to record the results. However, a rapid change is taking place. Great reforms are going on. Every man who enters heartily into the work of his societies—local, provincial and Dominion—helps real advancement. He who stands aside is more his own enemy than anything else, for had he all the wisdom of the ancients he will find it avail him nothing. His selfish attitude wll eventually place him in a back seat. "United we stand." The gathering together

in societies heartily, with an open and generous mind and with no desire but the increase of scientific knowledge and the good of our profession tends to (1) the cultivation (*most important*) of professional courtesy; (2) fostering of friendly relationships; (3) clearing away of many misunderstandings which may have risen through lack of personal knowledge of one another; (4) the obtaining of mutual assistance and eventually of *concerted action* in questions important to our professional welfare; (5) last, and not least, the great educative benefit from the hints, suggestions and information obtained from others' experience, the discussing of which acts as a stimulus to constant study and research.

A further and permanent benefit is the recording of all these experiences and opinions. The *preparation* of papers benefits the writer, and the *criticizing* the reader. Nothing has a more unifying effect than the publishing of the work done by the various members of the profession in their societies, etc.

We must thank the secretaries and others who have sent us reports of the various meetings. Every man who sends any record of work done is helping the Medical West forward. The spoken word is heard *locally,* but the written word reaches *all our medical brethren* in the West and other places.

Regarding the question of reciprocity, it certainly appears that if a personal canvass were possible the majority would desire a UNITED MEDICAL CANADA. This obtained for us, other good would quickly follow. One certain result—the raising of the standard.

The following Western men assisted us during 1907 by contributions:—

British Columbia.—*Victoria*: Drs. C. J. Fagan; R. L. *Vancouver*: Dr. R. E. McKecknie. *Nelson*: Dr. E. C. Arthur.

Alberta.—*Edmonton*: Drs. C. N. Cobbett; A. E. Nichols; W. Duncan Smith. *Red Deer*: Rev. W. Heustis. *Pincher Creek*: Dr. R. S. Hewetson. *Calgary*: Drs. W. Egbert, R. Sanson, E. G. Mason; G. R. Pirie.

Saskatchewan.—*Regina*: Drs. W. Dow; H. B. Nyblett. *Saskatoon*: A. Croll; George Peterson. *Prince Albert*: J. Ren-

wick Matheson. *Maple Creek*: Frank G. Smith. *Rosthern*: E. Reavley.

Manitoba.—*Winnipeg*: Drs. W. Harvey Smith; J. H. R. Bond; Herbert Galloway; R. W. Kenny; D. S. Mackay; R. Rorke; Egerton Pope. *Deloraine*: R. S. Thornton. *Elm Creek*: J. Duxbury. *Killarney*: J. McKee. *Dominion City*: M. O'Brien. *Dauphin*: Dr. D. Lineham; Dr. Carscallen, *Wninipeg.*

Ontario.—*Fort William*: Drs. J. D. Chisholm; R. J. Manion.

And also the following medical men in other parts:

Professor Osler, Oxford University; Professor Ewald, Berlin University; Drs. Robert Jones; W. Soltau Fenwick; A. T. Schofield; Percy Kidd and Professor Sydney Martin, London, Eng.; Dr. James Mackenzie Burnley, Drs. G. A. Gibson and R. A. Fleming, Edinburgh; Dr. T. K. Monro, Glasgow; Dr. G. W. Brock, Johannesburg; Dr. A. G. Welsford, Rome; Dr. A. J. Ochsner, Chicago; Dr. A. W. Gilchrist, Nice; Dr. J. T. Fotheringham, Toronto University; Dr. G. F. Martin, Montreal; Dr. A. H. Ferguson, Chicago.

To our own Western contributors and our local editors, and those who in different ways have assisted us throughout the year we tender our heartiest thanks, and we are sure that all Western men join with us in thanking most sincerely those leaders of our profession in other parts of the world who have shown their interest in our progress by sending contributions. Everyone will rejoice with us that 1908 promises well. There is a medical "stir in the air" out West. One reform that seems coming—the dying out of that enemy to all progress—the *provincial spirit.* Let us in Canada only have a *professional spirit,* remembering, as Osler has written, "Our mission is of the highest and of the noblest kind, not alone in curing disease, but in educating the people in the laws of health and in preventing the spread of plagues and pestilences."

Westward the course of Empire takes its way;
The four first acts already passed,
A fifth shall close the drama with the day—
Time's noblest offspring is the last.

—*Bishop Berkley.*

GENERAL MEDICAL NEWS

MEDICAL SOCIETIES

The Winnipeg Clinical Socety met in Medical Library, December 3rd, Dr. Milroy, the president, being in the chair. The constitution and by-laws committee, consisting of Drs. Bond, Kenny and Rorke, gave their report. After a discussion on each section the constitution and by-laws were adopted. The society decided to meet on the first and third Tuesdays of each month. An invitation was given to any medical men visiting Winnipeg to attend the meetings.

The same society met again on Decembr 17th, Dr. Milroy in the chair.

The following cases were presented: Dr. Hughes, a papular syphilide case in a male; Dr. Hutchinson, a case for diagnosis of which the general concensus of opinion was a toxaemic rash.

Dr. Hunter presented a case: H. H., male, aet. 46; an ironworker; with basic lesion of doubtful nature. L. Pneumonia in 1897; slight cough as a sequel. In August, 1907, increasing weakness, cough, night sweats, loss of weight, with temperature running from 99½ to 102; pulse 100 to 120, which symptoms continued during September and October, with increasing evidence of consolidation and softening of the left lower lobe. Tubercle bacilli constantly absent and no signs of fluid. From November onwards increase of strength and weight, but still dullness all over the left lower lobe, with bronchial breathing and large and small rales, also whispering pectoriloquy over upper part of the lower lobe; all the physical signs strictly confined to the lower lobe, apices free, no obvious retraction of the left side, no displacement of the heart and the other organs healthy. Tubercle bacilli and actinomycosis throughout from the sputum and no history of syphilis.

Discussion.—Dr. La Chance stated that while in Paris he had seen the Ophthalmo-T iberculine test very successfully dem-

onstrated, and in his own practice had proven its accuracy, citing two cases—one in a case of enlarged glands in the neck, which gave a positive reaction, and on operating proved to be tubercular. Another case of enlarged left kidney with pus in the urine that gave a negative reaction, which proved to be correct on operating. He asked Dr. Hunter if this test had been tried, and was answered in the negative.

Dr. McKenty questioned this method of diagnosis and said more light on the pathology of the blood sera in tuberculous disease would have to be worked out before he would rely on the test.

Dr. Meindl suggested aspiration of the left chest. Dr. Hunter stated that he had Dr. Lehman in consultation, who strongly advised against this.

Dr. McKenty stated that he had had a case with similar symptoms and physical signs, but the man became gradually worse and died. No tubercle bacilli had ever been found.

Dr. Milroy's case, presented by Dr. Kenny:—

G. W., aet. 46; 5 ft. 4 in.; wt. 115 pounds; pale and slight. Complained of dizziness, shortness of breath, some weakness, indigestion, cough and diarrhoea; temperature normal, pulse 60 when first seen, now 84, low tension, quick and markedly irregular.

Examination of chest—Inspection: No bulging in the precordial area; no apex impulse visible; marked pulsation in the epigastrium; slight pulsations in the great vessels of the neck.

Palpation—No apex impulse felt, some shock and slight thrill at ensiform cartilage.

Percussion—Cardiac dullness begins above at the fourth costal cartilage on the right 1¼ inches beyond the left border of the sternum, and extends 5¼ inches to the left, i. e., well beyond the nipple line.

Auscultation—At the apex is heard a rough vibratory murmur extending upwards to the fourth left costal cartilage, with the maximum intensity at the fifth left costal cartilage. This murmur extends over and obliterates the first apical sound, the second sound being accentuated. The murmur is not heard distinctly towards the axilla and is not heard in the back. The

second pulmonary sound is not accentuated. A diastolic murmur is heard with maximum intensity at the midpoint of the sternum, and is heard at the aortic cartilage. There is no accentuation of the second aortic sound. A systolic murmur can be heard at the aortic cartilage and seems to be the murmur best heard towards the apex. Above the clavicle no murmur can be heard. Liver dullness extends two fingers' breadth beyond the left costal margin. Urine: Amber, 1023, acid marked albumen, no casts, no sediment.

Discussion.—Of the primary lesion:—

Dr. Kenny said that the apical murmur was rough and vibratory, and this quality could only come from a roughened valve segment—in this case the mitral; the thrill corroborated this.

Dr. Hunter said that the course of the murmur and the point of maximum intensity with the absence of the accentuated second pulmonary sound would, in his opinion, exclude a mitral lesion, and the diastolic aortic murmur made it an aortic regurgitant lesion.

Dr. Milroy took the view that the systolic murmur at the apex, the pulse, and (although there was absence of accentuated second pulmonary sound, this might be due to weakness of the right heart,) made it to his mind a case of primary mitral regurgitation.

Dr. McKenty pointed out that Osler emphasized a trinity of signs in mitral stenosis which were absent in the present case, so he doubted the presence of a mitral stenosis.

Dr. Munro, who examined the patient when first seen at the Winnipeg Dispensary, said it then seemed to him a case of mitral stenosis primarily.

The case was left over to be brought up again.

Dr. Carscallen presented a case for diagnosis, but owing to the lateness of the hour it was held over for a later meeting.

The Winnipeg Medical Society met in the Medical Library, January 3rd, Dr. Davidson in the chair. Dr. Leeming read a very interesting paper on "Opsonins" (which will be published next week). Dr. Good presented a case of Chronic Otitis

Media on which he had performed a mastoid operation with successful results. Dr. Hunter showed a case of Lichen Planus following on an attack of pneumonia, and Dr. Todd presented one of large myoma uteri which he had removed from a patient with a very small pelvis.

VITAL STATISTICS

Winnipeg, December—Marriages, 208; births, 294; deaths, 172.

Infectious Diseases—		
Typhoid fever	10	..
Scarlet fever	35	..
Diphtheria	33	..
Measles	6	..
Tuberculosis	2	2
Mumps	22	..
Erysipelas	9	..
Chickenpox	6	..
Smallpox	2	..
	125	2
Vaccinations	54	

Winnipeg, 1907—Births, 3323; Deaths, 1458; Marriages, arout 1900.

During the year 1907 the health of Winnipeg has been particularly good. The deaths only being at the rate of 12.6 per 1,000. Only 30 typhoid cases, as against 1,174 in 1906.

Brandon, 1907—Births, 272; Deaths, 202; Marriages, 191.

Calgary, 1907—

Diseases—	Cases.
Diphtheria	17
Scarlet fever	26
Measles	195
Chickenpox	18
Smallpox	2

Vancouver, December—Births, 93; Marriages, 45; Deaths, 83.

For Year 1907—Births, 10,34; Marriages, 699; Deaths, 897.

INFECTIOUS DISEASES—1907.

January	32
February	36
March	46
April	46
May	374
June	565
July	151
August	52
September	185
October	375
November	219
December	189
	2270

Vancouver has now a Medical Inspector of Schools, hence few cases escape being reported to the Health Department.

Edmonton, December—Births, 52; Marriages, 22; Deaths, 23.

Diseases—	Cases.
Scarlet fever	4
Diphtheria	1
Typhoid	15 (8 outside city.)
Measles	2 (1 outside city.)
Erysipelas	2 (1 outside city.)

Nelson, B. C.—The Medical Health Officer reports the year 1907 as an exceptionally healthy one—12 cases of Diphtheria, 2 deaths. An important matter as affecting the spread of disease is pointed out my Dr. Arthur, viz: That children not attending day school because of some infectious disease at home will continue going to Sunday school. He feels also that the requirements of the Provincial Board of Health are not sufficiently enforced.

HOSPITAL NEWS

A number of children of New Westminster, B. C., have banded themselves together for the purpose of equipping and maintaining the children's ward to be built in the new Royal Columbian Hospital. The ward is to have 12 cots, costing about $1,500 a year to maintain. The money is to be raised by the children by voluntary contributions, entertainments, etc.

Regina is to have a Municipal Hospital. A by-law authorizing the issue of debentures to raise the money was passed January 3rd—$100,000 will be needed for ths purpose.

A home for the aged poor has been opened at St. Paul's school, Winnipeg, through the efforts of the Christian Women's Union.

The new hospital at Selkirk, Man., was opened January 7th. The opening was turned into a provision shower and supples are thus provided for some months. There are seven private wards and two open wards, all of which are furnished by the Masonic lodge, Odd Fellows, Icelandic league, Cloverdale St. Andrew's society and Goodwin Watson. The building is in the south end of the town overlooking the Red River.

A number of medical men of Toronto who are not attached to the staff of any hospital in the city have formed an association, the object of which is to build by subscription a new hospital which will be entirely separated from any school or other hospital. The chief reason for this step being that only attached physicians are allowed to follow their patients into the hospital and treat them there. Dr. John Mable was elected president. They intend building a $150,000 hospital.

At the meeting of the Brandon Hospital Board, December 15th, it was decided to co-operate with the Dauphin board in regard to the question of the sustenance of hospitals.

Over $80,000 has been subscribed towards the B. C. Tuberculosis fund.

The new Misercordia Hospital, Winnipeg, is now open.

At a recent meeting of the directors of the Hospital Board of the Royal Jubilee, Vancouver, the following resolutions were adopted:—

"That the city authorities be asked to provide the sum of $10,000 in the 1908 estimates for the hospital," and "that the most rigid economy be practised during the remainder of the hospital year so that, if possible, the year may close without a deficit in the general maintenance account."

Dr. Helmcken sent a letter drawing attention to the necessity of an amendment being made to the Workman's Compensation Act which would enable hospitals to collect bills for services to workmen sent to the hospital for treatment in accident cases. The company the man has worked for is really liable, or whoever was the cause of the accident.

MEDICAL NEWS

A Chinese named Willie Lung who has been living at Metlakatla with Peter Robinson, an Indian Constable, was brought to Pince Rupert and charged with practising medicine contrary to the provisions of the Medical Act. He pleaded guilty but explained he had been granted a permit to practise medicine among the Indians by the five chiefs at Kincolith, for which he paid $5. He said he did not always charge for services but merely for medicines. He was fined $50 and $10.50 costs.

On January 2, at Pittsburg a number of leading medical men and educators of the country held a meeting to discuss chiefly two important questions. (1.) That four years in college and four years in a medical school are too much to ask in preparation for his profession. The Academy of Medicine propoces to so arrange the College Course with the Medical Course that six years only will be required. The question is to be discussed from the viewpoint of the college by the leading professors.

Dr. Julia Bang-Klinck is the first woman physician to attempt to pass a winter at Advent Bay, Spitzbergen. Dr. Julia

Bang-Klinck went with her husband as one of the physicians with the expedition which went out this winter.

The question of the claim of Dr. Gillespie for $144 for professional attendance on a patient at the Misercordia Hospital was again brought up at the Edmonton Council meeting, the result being that, although the Medical Health Officer had turned the case over to Dr. Gillespie, the city solicitor stated no city official has power to contract debts for the city unless authorized by by-law—consequently Dr. Gillespie will not be paid.

The Governors of Toronto Hospital have decided to increase the salaries of the professors all-round. The maximum was made $3,500 to $4,000 and the age limit 60 years. The age limit can be extended by the board in special cases.

Beginning September, 1908, Queen's University will adopt the five years course.

Lord Kelvin, the great scientist, was buried in Westminster Abbey, December 23rd. The King, the Prince of Wales and other members of the royal family sent representatives.

Legislation was obtained in January, 1907, in Winnipeg to allow the closing of houses in cases where owners refused to install plumbing. During the year, 150 houses have been closed.

There is a dairy by-law now ready for Winnipeg City Council. It gives the power of supervising not only the milk as it comes from dairies, but also the subsequent handling and disposal of it in restaurants, boarding houses, etc.

In many large centres the medical men have agreed that the minimum for medical examination for life insurance shall be $5. Most life insurance companies have agreed to pay this fee.

The Academy of Medicine recently inaugurated at Toronto has now a large membership and promises to be very successful. The programme for the season has been so arranged that different evenings have been allotted to symposiums on different subjects in medicine and surgery.

The health department of Berlin considers that the jumping movement of the film of moving pictures is injurious to the eyesight.

Professor Osler, at the opening of the Tuberculosis exhibition at Dublin, extolled the climate of Ireland for consumptives. He said that fresh air, good food, good houses and hope were more essential for the cure of consumption than sunshine.

Sir Ray Lankester has been drawing attention to the evils of the practice of spitting in public vehicles and other places, especially in connection with the railway tubes, where the absence of sunlight which might help to render bacteria innocuous makes spitting so dangerous.

March 16th has been fixed as the date for the holding of the first election of the Senate of the University of Alberta. The registration of members may be made up to a month previous to that date.

The annual meeting of the McGill graduates society of B. C. was held at McGill University College on December 6th. Dr. Tunstall, Vancouver, the president of the society, occupied the chair. The committee in charge of the subscriptions in support of the Chair of Modern Languages endowed by the society in McGill University College of B. C. reported about half the required amount had already been subscribed by members. The annual banquet was given in the evening at the Vancouver club.

The students of the Pennsylvania Medical School have formed an organization, the purpose of which is to acquaint the undergraduates with workings of the American Medical Association. The various student societies take the place of the state organizations and elect members to a House of Delegates which transacts all business of the association. An annual meeting is held at which papers are read by members, thus encouraging the scientific spirit and original research. The association—"The Undergraduate Medical Association of the University of Pennsylvania"—has already a membership of over 250.

The annual dinner of the Manitoba Medical Students' association held December 21st was a great success.

PERSONALS

Dr. Lockburn Scott, formerly at Winkler, has taken over Dr. Tolmie's practice at Washada, Man.

Dr. Knight, Ninga, has bought Dr. McIntyre's practice in Winnipeg and Dr. Hargrave has taken Dr. Knight's practice.

Dr. White, Killarney, has moved to Winnipeg and Dr. Little of Alexander, Man., has taken over his practice.

Dr. Irwin, Hartney, is now quite recovered from his illness and has resumed work. Dr. McDonald, Winnipeg General Hospital, acted as his Locum.

Dr. Robinson, Wetaskiwin, paid a visit to Calgary Xmas week.

Dr. Zimmermann, Rama, Sask., visited Edmonton during Xmas.

Dr. and Mrs. Harwood, Edmonton, spent Xmas with Calgary friends.

Dr. and Mrs. Doyle are having a trip through the States and will return home via Vancouver.

Dr. Stevenson, Wetaskiwin, paid a short visit to Calgary Xmas.

Dr. Holt, Lashburn, has been visiting his sister at Lloydminster.

Dr. McIntyre has started practice at Summerland, B. C., and Dr. Casselman late of Napinka, Man., in Vancouver, B. C.

Dr. Richard Whitfield Large of Bella Bella has been appointed coroner in and for the Province of British Columbia.

Dr. Halliday is in practice at Hurry, Alta.

The *engagement is announced of Dr. A. Bercovitch of* Winnipeg to Miss Marjorie Rosalyn Heitneir of Chicago.

Dr. Hall who has been in charge of the St. John's Hospital at Ketchikan, Alaska, will spend a short time in Vancouver and Victoria and then leave for San Francisco. After a visit there he will return to his practice in the north.

Dr. Blakey, Sinalaluta, has gone to practice at Elm Creek.

We regret to hear that Dr. McGuigan, former mayor of Vancouver, is seriously ill at St. Paul's Hospital. Dr. McGuigan has been for years a member of the board of examiners and is coroner for the County of Vancouver.

Dr. Hannington of the Rock Bay Hospital is down at the coast for a month's holiday.

The Victoria Medical Society presented an oil painting of Dr. J. C. Davie to the Jubilee Hospital as a tribute to his untiring efforts in the cause of the medical profession of the city. We regret to hear Dr. Davie is seriously ill at Arizona.

Dr. and Mrs. H. E. Munroe, Vancouver, left before Xmas for a holiday trip to Chicago, Detroit, Ottawa, Montreal and Toronto.

Dr. P. D. Stewart, Vancouver, has returned from his visit to his old home, Ontario.

Dr. J. D. Harrison, Edmonton, who has been seriously ill with typhoid fever, is now recovering.

We are glad to hear that Dr. R. G. Montgomery, Winnipeg, who has been ill, is now much better.

Dr. Thomson, Regina, as chairman of the Board of Health.

Dr. Spurgeon Campbell has returned from his trip east.

Dr. Allan Beach has been appointed physician to Quesnel, B. C.

Dr. and Mrs. Murdock, Rainy River; Dr. Speirs, Fort William; Dr. and Mrs. Weagant, Portage; Dr. Rowcroft, Birtle; Dr. and Mrs. Morrison, Virden; Dr. and Mrs. Hislop, Edmonton; Dr. Tolmie, Washada; were visitors to Winnipeg lately. Dr. and Mrs. Weagant are staying for the winter.

Dr. W. C. Redmond, Edmonton, paid a short visit to Brandon.

Dr. Miller, who has been practicing in Kobe, Japan, will spend the winter with his family in Vancouver.

Dr. Burris, Kamloop, B. C., spent Xmas at Vancouver.

Dr. John Valens was returned as alderman for the City of Saskatoon but was unfortunately unseated owing to a technical error in not having sufficient property assessed in his own name.

Dr. Croll, Saskatoon, has replaced Dr. J. Cameron as medical officer to the C. P. R. bridge camp near the city.

Dr. J. H. C. Willoughby was returned after a spirited contest as an alderman for the City of Saskatoon. He held a seat in the old council.

Dr. Hunter of Arthur, Sask., and Dr. Hicks, Griswold, were visitors to Brandon during Xmas.

Dr. Neely, M.L.A., visited Regina lately.

Dr. and Mrs. Green, Cranbrook, B. C., spent Xmas in Vancouver.

Dr. Graham, Victoria, has gone on a trip to California.

Dr. Gardner, Winnipeg, has been visiting the east.

The medical profession of Saskatoon is well represented on the city council by Drs. H. E. Munro and J. H. Willoughby.

Dr. C. W. Doran was returned at the recent election as trustee for the High School District of Saskatoon.

Dr. David Low, Regina, paid Winnipeg a visit the first week of January.

We are glad to say that Dr. McKenty, Winnipeg, who has been suffering from a septic hand, is now quite recovered.

MARRIED

Houston—Taylor—On December 28th, John Houston, M.D., of Cypress River, was married to Miss Iris E. Taylor of Carroll. The wedding took place at Starbuck, Man.

Shadd—Simpson—At Winnipeg, 26th December, Alfred Schmitz Shadd, M.D., of Melfort, Sask., was married to Miss Janet S. Simpson of Winnipeg.

McIntyre—Harkley—At Owen Sound, January 1st, Dr. William McIntyre, M.P., of Strathcona, Alta., was married to Miss W. J. Harkley, daughter of the late Captain R. Harkley.

OBITUARY

Richardson—On December 10th at Camrose, Dr. Richardson passed away. He was buried in the National cemetery at Banff, many old friends from Canmore attending the funeral. Members of the Masonic and Orange lodges were also present but by his own wish there was no public ceremony.

Lassar—Professor Lassar, the great dermatologist and member of the medical faculty of Berlin University, died December 23rd as a result of an automobile accident.

Senn—Dr. Nicholas Senn, one of the most noted surgeons, died suddenly at his home, January 2nd.

Bayard—Dr. William Bayard, said to be the oldest practitioner in the world, died, aged 94, at St. John's, N. B., December 17th. Dr. Bayard had practised at St. John's for 67 years.

CORRESPONDENCE

TO THE EDITOR,

Dear Sir,—I beg to submit to you the following experience which I had in my attempt to register as a Medical Practitioner in the Province of Alberta, in the hope that it will be of interest to you, and if you can see your way to publish it, in your Journal, instructive to your readers.

I am a graduate of Glasgow University (M.B., C.M., 1881) and registered in the British Register on the 29th day of August of that year. I have been in Canada a little over a year. In March of this year I applied for the position of doctor to a mining camp in a small town in Alberta, and was duly appointed. Before proceeding to take up the duties I was assured that all that was necessary for me, in order to register in Alberta, was to exhibit my diplomas, and pay a fee of $52. This I offered to do soon after my arrival at the place. I was, however, promptly informed by a member of the Council of Physicians and Surgeons of Alberta that since May, 1906, the Alberta Medical Act had been in force, and the requirements for registration were: (1) The possession of a diploma from a reputable college (such as mine); (2) the passing of an examination before a board of examiners appointed by the Council of Physicians and Surgeons of Alberta; (3) payment of a fee of $102, which included the fee for examination.

As I continued to practice I received a summons to appear before a J. P. to answer a charge of "Practicing medicine for hire, gain, or hope of reward, without being a registered member of the College of Physicians and Surgeons of Alberta." The case went on to trial, and at the outset I did not deny that I had practiced medicine for gain, but claimed the right to do so, under the Imperial Medical Act, being a medical practitoner prior to the 1st June, 1887, under the Imperial Statute 31st Vic. Cap. 29, Sec 3, which provides as follows: Every Colonial Legislature shall have full power to make laws for the purpose of enforcing the registration, within its jurisdiction

of persons who have been registered under the Imperial Act upon payment of the fees, if any, required for such registration and upon proof in such manner as the Colonial Legislature shall direct of his registration under the said Act. Section 31, of the Imperial Act provides as follows: That a person registered under this Act shall be entitled to practice medicine or surgery in any part of His Majesty's dominions. The solicitor of the Council cited witnesses to prove that I had attended cases for gain, and the magistrate decided against me, and fined me in $25 and costs. The case of Lafferty v. Lincoln was referred to in the course of the trial, but I contended that this did not affect the question arising in my case. The question in that case was as to the validity of the Alberta Medical Act, concerning which there can now be no doubt whatever.

The sole question arising in my case is as to whether or not, having regard to the fact that I am registered under the Imperial Act, which says that registration thereunder shall be sufficient in all His Majesty's Dominions, I am entitled to registration in Alberta without examination and without delay.

I shall be glad to have your opinion of the above facts, as I am not, at present, in a position to appeal the case to a higher court, and oblige, yours faithfully, JAMES DONALD.

Answers to Correspondents.

Answer.—Your offer to register on arrival in Alberta should have been accepted as you registered before the Imperial Statute that gave control on such matters to the colonies was passed.

NOTICE

The following is a list of the Western societies, etc.:

Society—	Secretary.
The Winnipeg Medical Society	Dr. C. H. Vrooman
The Winnipeg Clinical Society	Dr. Sharpe
The Calgary Medical Society	Dr. E. Aull
The Regina Medical Society	Dr. Black
The Vancouver Medical Society	Dr. J. M. Pearson
The Thunder Bay Medical Society	Dr. Chisholm (Port Arthur.)
The Brandon Medical Society	Dr. E. C. Beer
The Northern Alberta Medical Society	Dr. W. W. Smith
The High River District Medical Society	Dr. G. E. Learmonth
The Saskatchewan Medical Association	Dr. G. A. Charlton
The British Columbia Medical Association	Dr. Eden Walker
The Interior Medical Association	Dr. S. Petersky (Sandon, B. C.-
The Provincial Medical Association of Alberta	Dr. Dunn (Edmonton)
Colleges—	**Registrars.**
Manitoba College of P. and S.	Dr. J. Gray (Winnpeg) Registrar
Alberta College of P. and S.	Dr. Lafferty (Calgary)
N. W. T. Colege of P. and S.	Dr. Lafferty (Calgary)
British Columbia College of P. and S.	Dr. Fagan (Victoria)

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While I tell you something of this Company whose stock I am offering and which you should buy if you want a safe, sound and money-making investment, one that will permit you to sleep well and make money for you while *you* sleep.

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Mr. John F. Douthitt, "whose name this Company bears," established this business *25 years ago*, has made money every year since, last year *cleared over $50,000*, all these years the business has been located on the wealthiest street in the Greatest City in the World, 273 Fifth Avenue, New York City.

The John F. Douthitt Co. deals in hand-painted tapestries, upholsteries, draperies, oil paintings, water colors, brass goods and antiques of all kinds, beside all this Company does a large *Decorating* business. Mr. Douthitt has decorated some of the finest homes, hotels, theatres, State Capitols and Court Houses in all parts of the United States.

This Company is headquarters for and carries the largest stock of *hand-painted silk tapestries in the world.*

The continual growth of this enterprise made it too large for a one-man business, thereby necessitating making it a corporation, which was effected last November when the John F. Douthitt Co. took over this excellent business, with a house packed full of goods amounting to over $200,000, *and not one cent of indebtedness.* Can one ask for anything better.

There is a limited amount of this stock for sale, but only a part of that will be sold at $9.50, and the only notice of advance in price will be when printed on the coupon below.

In filling out the coupon, write plainly the name to whom the certificate is for, but send in quickly before the advance in price.

There is a good position here for several men in the different lines.

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Dec. 17, 1907.

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The physician's name will be cheerfully furnished on application.
The use of Pneumolytic Serum early in the attack insures much greater success.

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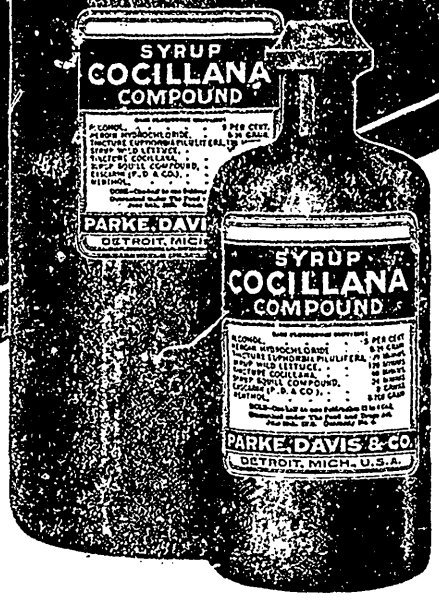

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