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Original Articles.

PRESIDENT'S ADDRESS.*

By Geo. Drew, M.D., New Westminster, B.C.

Gentlemen,—I feel impelled by keen sense of obligation to at once thank you for the unexpected and unwarranted honor conferred upon me by your choice of president for this annual period and meeting of our provincial association.

My next duty, much more pleasant and agreeable, is, on behalf of the medical profession of this city, and personally, to extend to the membership of the association and visiting brethren, especially those from south of the 49th imaginary line, a most hearty and fraternal greeting and welcome to this, the seventh meeting of the British Columbia Medical Association, and also to express the hope that our associations and deliberations may result in mutual pleasure and profit.

Upon reference to the by-laws of the British Columbia Association, I observe certain duties are imposed upon the president. From one of his duties there is no escape, for it is imperatively there set forth in this absolutely positive language : " He shall deliver an address, setting forth the condition of the profession in the province," etc. Having read this authoritative command, " He shall deliver an address," etc., the weight of official responsibility seemed almost crushing ; yet duty's call adds stimulus and sometimes assists the weak and timid to surmount mountains of difficulty. To set forth the condition of the profession in or throughout the province is a heavy undertaking, and I hope impeachment for neglect

*Delivered at annual meeting of British Columbia Medical Association, August 1st and 2nd, 1906.

of trust may not follow my efforts to discharge the traditional and customary duty of the official chair.

Though our city is not hoary with legends or traditions, nor our archives musty with the accumulated historical records of consecutive centuries (for many citizens who may jostle you upon our thoroughfares to-day were pioneers and helped to clear the virgin forest even where we now are gathered), yet New Westminster will ever remain and pass down in history as having been the first capital of British Columbia, and, though shorn of that glory, nature's legacy of picturesque and superior commercial location upon the gentle slope of Fraser's northern banks will ever remain with her, and at future gatherings of the medical association of the Sunset Province of our fair Dominion I hope the memories of all here assembled may revert in pleasant recollection to this first meeting in the Royal City.

As corroborative evidence of our city's claim of having been the capital, it is interesting to observe that the first act passed in British Columbia respecting the practice of medicine was passed here, and is entitled, "An Ordinance Respecting Practitioners of Medicine and Surgery." It is dated as having passed the Legislative Council upon April 1, 1867, and assented to in Her Majesty's name upon April 2, 1867, by Frederick Seymour, Governor, at New Westminster, B.C. The Act is a short one, and the preamble is not by any means the least important clause. It runs: "Whereas it is expedient that persons requiring medical aid should be enabled to distinguish qualified from unqualified persons, therefore be it enacted." This clause shows clearly that the idea in the minds of the early legislators of this province, when they passed our first medical act was that it was more for the protection of the public from incompetent practitioners that such a law was necessary than, as is so often stated at the present day, to create the members of our profession into a closed corporation. I am indebted to one of our former presidents, Dr. R. E. Walker, of New Westminster, for this item of history, and if any persons feel sufficiently interested to look more carefully into the legislative history of the profession, I would refer them to his presidential address of August 29, 1902, in which this feature of our history is very elaborately recorded.

The Royal Columbian Hospital, founded in 1859, now located in our suburb (Sapperton) was the first hospital established upon the mainland of British Columbia, there having been a marine hospital at Victoria prior to 1859.

It may not be unprofitable to briefly review the history of the association, especially as the city in which we are now assembled was intimately associated with the conception and

birth of our officially organized institution. We are just now seven years old, and, though the silver streaks of advancing years are showing upon the heads, and the contemporary lines of care upon the features of many present, I sincerely hope not one of us has yet lost the retrospective interest attached to and associated with the arrival of the annual birthday period.

During the year 1899 a series of meetings of the Vancouver and the New Westminster medical societies was held to discuss the question of the formation of a provincial medical association. On January 18, 1900, the Victoria Medical Society invited delegates from Vancouver, New Westminster and Nanaimo to a dinner, at which the desirability of such an association was unanimously recognized. The next day a meeting was held in the Parliament buildings, in the rooms of the Hon. the President of the Council, at which Hon. Dr. McKechnie, of Nanaimo ; Drs. Helmcken, Fagan and Fraser, Victoria ; Dr. Walker, of New Westminster, and Drs. Weld and Pearson, of Vancouver, were present. The British Columbia Medical Association was inaugurated, officers were elected, and in August of the same year the first meeting took place in Vancouver.

The dangers besetting the infantile and childhood period of medical societies in general are more or less familiar to the profession, and the vicissitudes and precarious existence of our British Columbia societies may even yet be within the memory of some present. Without further irksome and wearying recital of historical data, we may congratulate the association upon its having passed the most dangerous period of life, survived many critical experiences, and that now it might be regarded as almost able " to run alone." Many of us seem to consider such an organization really able to run itself, but we only require a moment's serious thought to realize that it needs support. United effort and allegiance to the true principles of our ancient and noble profession will instil such vitality that the objects and purposes of the association will become more apparent to each member, and real benefit be bestowed upon the profession and general public.

So much of sterling value, in information, suggestion and precept is contained within the small compass of the constitution, by-laws and code of ethics of the British Columbia Medical Association, that I now take the liberty to suggest that steps be taken to place a copy in the possession of every member of the profession in the province, and I earnestly hope careful perusal of the modest pamphlet may be granted.

This train of thought has temporarily drawn me beyond

the swift current of scientific advance and surgical evolution into an eddy of retrospective reverie, offering passage by a deep and steady channel of present attainments to a limitless ocean of unfathomed depths.

So much are we engrossed at these periodical gatherings with scientific discussion that it appears to me not unwise if we devote a little time and thought to the ethical aspect of our profession.

As no distinctions of race or nationality are recognized by us, so in our ministrations to the public during the discharge of professional duties, we stand upon an isolated plane and require to be most careful that we retain in the public eye the respect and confidence bequeathed by our predecessors. Having lived and labored under some of the old, and now superseded, methods of practice, and in older Canada, the difference of the attitude of the public towards us as a profession, compared with that of years ago, is very apparent. As custodians of the public and private health, we should deserve and command a greater degree of public confidence than I fear is bestowed upon us. Why such relations ? There may be some cause of fault with the public. We may at times think them hypercritical ; yet we all recognize that honest criticism is beneficial and stimulative towards better and more perfected effort. Since it is " our duty to the public " that is under consideration, I shall not attempt to deal with " the duty of the public to us," but will endeavor to make a few observations which I trust may arouse sufficient thoughtful interest in our professional musings from which possible benefit may accrue.

That many causes exist with us whereby this loss of professional prestige has become so general I am convinced all present will admit. As to how numerous the causes are which have produced such effects and the remedy to be applied or counteracting course adopted, I really think it impossible, in the short time at my disposal, and also inadvisable to undertake the enumeration of, or suggest remedies. Every man is conscious of individual defects of character, temperament, disposition and qualification or fitness for the position he may be called upon to fill. The medical profession offers no easy grade nor substitutional discharge of duty whereby such natural discounting defects might be counterbalanced in some other profession, trade or calling, for the physician must personally attend to duties, no proxy often being worth considering. Hence, upon his individual fitness and possession of those inherent qualities (educational training being granted), tact, good judgment, knowledge of human nature, etc., which go toward making a good physician, de-

pends his success. This personal attention which the profession calls for, both in relation to patient and public, soon tests the physician's capability for inspiring confidence or otherwise. Professional misfits may account in some degree for the attitude of the public under consideration, but there are other causes, many of slow growth, therefore more deeply rooted.

Lack of unity and firm adherence to duty, principle and honor, upon questions of moral and professional character to-day constitute the worm at the root and are undermining the foundations of professional prestige. This is a broad, far-reaching statement, comprising sub-divisions which may embrace every branch of professional ethics, and, if properly applied, should constitute each one his own confessor. The object desired when these thoughts were engendered will, I hope, be more likely of attainment by leaving this delicate subject with us in its suggestive character, trusting that we will give to it the daily prominence which it deserves.

The public expects, and justly so, the physician to be qualified for any task. This thought might lead us towards the sub-divisions of general medicine and surgery into special fields, and very properly so, for we all soon recognize how broad and yet how limited is our knowledge. The specialist should be more capable of giving to the public the very best his field can produce. We, as physicians, recognize the advantage of special study and application and should not hesitate to advise our patients accordingly.

Our educational standard needs to be maintained, hence the professional qualification demanded by the provincial act, over which the medical council has supervision.

That the profession has done noble service and placed the public in a position of comparative safety when contagious or communicable diseases are considered, every citizen will admit.

We are all so familiar with the inestimable benefits which have during recent years been conferred upon humanity by bacteriological discovery and demonstration that I will not impose upon your patient indulgence by attempting to enlarge upon this subject. Were these remarks addressed to the public, the benefits accruing to them from discoveries pertaining to hygiene, purity of food, milk and water supply. etc., could be dilated upon, but this would form a subject worthy in itself of separate presentation, and beyond present intentions.

Though purposely avoiding special mention of the diseases which, through scientific investigation, have been prominently brought to public and professional notice, I cannot refrain from asking your serious consideration of the move-

ment and interest aroused by the universal efforts to combat the ravages of " the white plague "—tuberculosis.

Upon the medical profession depends, to a great degree, the success of efforts to intelligently apply the modern methods of opposing and counteracting the communication of this subtle and dread scourge of humanity. It is our duty to educate the " masses " as to the contagious character of this widespread malady. Though greater progress has been made in the eastern provinces of the Dominion and the republic south of us, we are now taking more active interest in this modern crusade, and, through the untiring efforts of the secretary of our Provincial Board of Health, definite steps are now being taken for the establishment of a sanitarium.

The consideration of " prevention of tuberculosis " opens to view the limitless field of preventive medicine in general, a field so vast that I merely mention it so that the intimate relations between the profession and the public may arouse the attention and interest the cause demands.

In addressing to you, as brother practitioners, these rambling remarks, your further active efforts in a cause constantly with us, I am aware that the appeal is made to a body of gentlemen who ever have been and are foremost in philanthropic work and who perform more charitable labor than all other professions combined. I trust these observations may assist us in the more faithful discharge of duties entrusted to our care ; for, being fully conscious of my inability to effectively handle a subject so replete with problems and possibilities, I feel that these remarks have fallen very far short of what the important questions demand.

Items of business and matters of public and professional import will be laid before you for discussion and consideration. Questions bearing upon education may demand your serious attention. You will be asked to consider the question of fees in life assurance examination ; this is a question savoring of commercialism, but, considering the conditions which at present exist, it is imperative that we deal with it.

These and other matters may be presented, concerning which I feel confident your careful and prudent deliberations will lead to wise resolutions.

We are highly favored by having with us so many visitors, and, as the programme offers a list of subjects rich in educative thought, I take this opportunity of thanking vou for your patient attention while listening to this prosy address, and now have pleasure in presenting to you papers of much more interesting character by gentlemen prominent in the profession, not only in British Columbia, but also in the republic of the Stars and Stripes.

Hoping the subject material placed before you may evoke friendly criticism and discussion, in which I most cordially invite our guests from the south to participate, I willingly resign the future conduct of the session to your care.

THE HEART IN PHTHISIS.*

By A. P. Proctor, M.D., Vancouver, B.C.

I am bringing this subject before you very briefly because in treating and watching cases of pulmonary tuberculosis the importance of a careful safeguarding of the heart, as well as the evidence it gives as to the progress of the disease and its usefulness from a prognostic standpoint, has so often been conferred upon me. I have wished to emphasize it too, because in my reading I have been able to find so little bearing upon this subject. This may be because my reading has not been extensive enough or that the significance of the heart has not seemed of so great importance to others of greater experience, but the fact remains that little emphasis appears to have been laid upon the heart and circulation in phthisis and that to me it has seemed of very great importance indeed. When one considers the pathology of phthisis and the interdependence of the heart and respiration, the wonder is that in so many cases of phthisis the heart does its work so well and for so long a time. Because it must be admitted that in many cases beyond the acceleration one would naturally expect in any case of fever or debility there are few evidences of cardiac change. I might say here I am not, of course, speaking of organic cardiac disease, which, as West says, "is uncommon and when occurring only does so accidentally." I have not been fortunate enough to have done many post mortems on cases of phthisis. Some here may have had greater opportunities. In private practice it is hard always to overcome the natural repugnance to a post mortem, and this, I think, is particularly true of patients dying of phthisis. My evidence, then, has nearly all been taken from physical signs and observations during the course of the disease.

From these observations I am of the opinion that embar-

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rassment of the right side of the heart, with its resulting dilatation and final failure is far more common than has been suspected, and this is particularly true where the type of the disease is febronal, but is not confined to this form of the disease or even to cases where the area of the disease is extensive, as I shall hope to show.

There is another class of case which we have all seen where heart action is poor and extremely rapid from the very first. I mean a rapidity much greater than what might be termed the normal acceleration of these cases, and which, as I have said, is to be looked for. In this class there are no evidences of cardiac dilation—no evidence of right ventricle embarrassment, but for some reason in this class of case the heart action is profoundly affected. Why this is so I am not clear. Probably the cause is different in different cases. It may be due to virulence of infection—to poor resistance—some nervous cardiac toxemic idiosyncrasy. There may be others here who can explain it better than I. But these cases are not uncommon and, as a rule, they are the cases that do badly. It was because of my observations in these cases that I wished to bring before you the importance of safeguarding the heart in phthisis and saving some cases which I have felt are being lost because of its neglect.

It is, of course, very hard to divide the victims of any disease up into groups for classification, but I simply wished to bring these few types of phthisical cases with marked heart symptoms before you and emphasize their importance, because I believe that by the neglect of the heart and circulation many cases are now lost that might at least have had their lives greatly prolonged, if not saved.

The following case illustrates well, I think, the danger of treating the obvious and primary condition in the lung and neglecting the heart :

M. W., aged 42, a railroad conductor, developed chronic phthisis. He had diffuse areas of consolidation, chiefly confined to the right lung. No breaking down of lung tissue, very slight evening temperature. Chiefly complained of dyspnea. No expectoration. The heart, however, showed some enlargement. There was great accentuation of the second pulmonary sound, which became weak after exertion. He did well as long as I could keep him quiet, but he was very anxious to resume his train. So, to save him from the temptation of work, I sent him away and warned him of the dangers of exertion. He returned considerably improved and foolishly consented to go as delegate to a railway convention in Cincinnati just when the weather was hottest and most trying. The long railway journey, the heat, and his exertions at the convention proved too great a strain. He

became very ill and died at his hotel in what was termed a sort of "asthmatic spell from heart failure." There can be no doubt but that his right ventricle failed at last under the strain of his incessant unrest.

The second case I bring before you differs in that the extent of the lung involvement was very slight indeed.

Miss G., aged 24, university graduate, and a school teacher, tall, thin, and nervous temperament. Small focus at right apex. Slight evening fever. Persistent cough. She had hemoptysis six months previously. No expectoration. Some moisture detected in deep inspiration.

Pulse, however, persistently high, 90 to 110, increased on slightest exertion, and intermittent. Heart showed diffuse impulse, weak first sound, accentuated second sound and slight increased area. She stayed in Kamloops some months and did very well as long as she was quiet, but becoming restless, went to California. Here they struck bad weather and moved about continuously from place to place, hotel to hotel, and we were shocked to hear of her death after a few days' illness, from what the death certificate stated was heart failure. There has been no doubt in my mind that this girl might at least have been preserved for months, if not for years, with proper rest and care, and I have often blamed myself for not insisting on her staying where she was, or at least pointing out more clearly the grave risks of exertion. I don't know that I have ever had a case in which the importance of the care of the heart in phthisis was more impressed upon me. Only a few days ago I saw a case of marked lung consolidation in a patient who had no expectoration, trifling evening temperature, but whose heart was running constantly between 120 and 140. The first sound was strong and booming, but the second pulmonary was getting weak, with almost a suggestion of incompetency. In these cases you will observe the temperature was trifling, there was no expectoration, the striking reaction of the organism to the disease was shown by the heart.

In pneumonia I believe most men pay infinitely more attention to the heart than to the lungs. They leave the lungs largely to look after themselves, believing that a crisis will come independently of anything they can do. The heart, however, they watch closely. The patient is kept absolutely at rest, and every indication of failure is met at once because it is realized from first to last that here the chief danger lies.

How different is the case with our phthisical patient. Too often in the presence of the obvious primary disease the circulation is almost entirely neglected. We allow our patient to go round if the fever is not above a certain point. I know,

of course, that pneumonia is acute, while phthisis is usually spread over a length of time, that the infection differs, that nature always accommodates herself better to a gradual than to an acute strain, but while all this is true, we have been too apt to overlook the heart in phthisis and the results have often been disastrous. Temperature has been emphasized and circulation minimized. I want to say here that in my opinion the temperature record is of infinitely less importance than the pulse. I will go even further, and do not misunderstand me, I do not want to minimize the importance of temperature reaction, but I believe if in a case of phthisis you have a poor pulse with a failing pulmonary sound, and in which the temperature reaction is trifling you allow such a patient to go round, you are permitting that patient to commit suicide just as surely as you allow a case of acute tubal pneumonia to walk the street.

I must apologize for having presented this phase of a great subject in a somewhat disconnected way. Human beings are hard to tabulate, cases of disease are always hard to classify and must of necessity always be so.

I have not attempted to go into the question of treatment—as to how these conditions should be met. I have tried to bring before you certain facts as I have seen them, and draw certain conclusions. What I have tried to emphasize is :

1. That in all cases of phthisis the heart should be carefully watched and forms a reliable index as to the progress of the patient.

2. In a certain class of cases—not so small or unimportant as has been supposed—the heart is in great danger of right ventricle failure.

3. There is another class of patients whose pulse is accelerated from the first far above what might be called the normal cardiac reaction to the disease.

4. That the evidence offered by the pulse is of greater significance than that offered by the temperature just as I believe is the case in abdominal lesions.

5. That the prognosis in cases in which the circulation is profoundly affected is grave, and vice versa.

SOME MISTAKES IN DIAGNOSIS OF VASCULAR LESIONS.

By B. D. Gillies, M.D., Vancouver, B.C.

I feel that I must preface my paper with a double apology to this Association : In the first place, because the title of the paper is somewhat misleading ; it was intended originally to cover more ground than it does, and to include errors of diagnosis of several varieties of vascular lesions, such as thrombosis and hemorrhage of the cerebral vessels, also of angina pectoris and rupture of the heart, but in gathering the material together I became more impressed that it would be of greater value to limit the field and to describe as accurately as possible the clinical picture of the cases mentioned. It is for this detailed account which I must also beg your pardon, but in cases which have been wrongly diagnosticated, in thinking over them we must consider everything which the physical examination revealed and attempt to put our finger on the point where we went astray.

I think, however, I need offer no apology for bringing cases of mistakes in diagnosis before your notice, for I am more and more convinced that by our mistakes we learn more than by our successes. Our mistakes ought to teach us humility, and we should, the longer we practice, be more imbued with the milk of human kindness, especially towards our fellow practitioners who may have fallen over a case under their care. I always feel when I meet a man who does not remember many mistakes that he has made in his professional work, that his field has been an extremely limited one, and that his mental vision is defective, myopic, so to speak.

The cases that I shall speak of are three in number, and to them I may add a fourth, if time permits. In each of the first three cases the tension was at the same site, in each it was of the same nature, and in each case it coursed under a different clinical picture. I speak of aneurysm of the third part of the arch of the aorta and upper part of the descending thoracic aorta.

Case 1. Female, age 56, was admitted to the woman's surgical ward of the Montreal General Hospital, on May 26th, 1904, complaining of an abscess in the back and burns about the body from the application of hot water bottles.

The history of the present illness is as follows: In December, 1903, an abscess formed at the inner side of the inferior

angle of the left scapula. On January 9th, 1904, it was incised and pus and blood were evacuated. Although dressed regularly and kept clean, the wound showed no tendency to heal, but frequently bled freely. On account of this tendency to remain open, a second, freer incision was made, and this time no pus was found, but the bleeding was profuse. Drainage was used, and bleeding persisted, but the wound showed no evidence of healing. The patient lost flesh and strength rapidly and became very pale and sallow. Two weeks before admission she began to suffer from attacks of faintness, with coldness of the extremities. It was for this that hot water bottles were used, and they caused sloughing of the superficial tissues in the left axilla. The personal and family histories contain nothing bearing on the present illness.

Present Condition.—The patient is a poorly nourished, pale, emaciated woman ; the mucous membranes are pallid, the skin almost of a lemon tint. She appears dull and lethargic, speaks very little, and complains of no pain.

Circulation system pulse rapid, 120 irregular, small and weak. The whole left side of the chest pulsates with the heart beat, especially in 5th and 6th spaces. The apex beat is diffuse. Cardiac dulness begins at the third rib above and extends transversely from one inch to the right of the sternum to the nipple line. At the apex the first sound is clear, sharp and high pitched. At the base over the pulmonary area the second sound is heard, sharply accentuated and accompanied by a rough, blowing systolic murmur transmitted down the sternum and towards apex, but not into the axilla. Aortic second also accentuated.

On examination of the lungs there were heard at the bases posteriorly numerous coarse mucous rales, otherwise normal. Liver and spleen normal. At the inferior angle of the left scapula and slightly to its inner side is seen an ulcerated area from which blood oozes freely. The edges of the ulcer are deeply undermined. In the posterior part of the left axilla are two dark, firmly adherent sloughs lying close to each other. Over the abdomen are seen a few reddened indurated spots, one 2 inches below umbilicus, being ¾ inch in diameter, is covered by a scab.

The patient had been in the hospital for five days when she died. While under observation nothing further was made out. The ulcer bled only slightly until on the morning of the day of the patient's death, when between two and three ounces of blood were lost. The pulse became more rapid and weaker, and in a short time failed completely. The patient did not complain of pain at any time. The mental dullness increased somewhat after admission.

At the autopsy, which was performed four and a half

hours after death, the following conditions were observed: The skin of the cadaver was of a distinct lemon tint. At the inferior angle of the left scapula was an ulcerated area 1 inch in diameter. The edges were indurated and deeply undermined. The finger could be passed beneath them for a distance of 1½ inches upwards and two inches downward. The base bled freely after this manipulation. On removing the sternum it was noted that the pericardium was unusually prominent, as if it were pushed forward. The heart was dilated, of a pale brownish color, and the muscle friable. The lungs were emphysematous and presented evidences of healed tuberculosis at the apices of both upper lobes. The kidneys showed chronic nephritic changes. The spleen was somewhat enlarged.

The interesting finding, however, was the presence of a large aneurysm of the descending part of the arch of the aorta and the upper part of the thoracic aorta. The aorta itself passed downward in the thorax over the anterior surface of the aneurysm, which extended from the 5th to the 11th dorsal vertebra The tumor was in shape elongated and rather narrow and varied in consistency at different parts. The anterior and lateral walls were well defined, but the posterior wall was so intimately associated with the tissues forming the wall of the thorax that in removing the mass the aneurysm was cut into, fluid blood and numerous large clots escaping. The bodies of the 6th-11th dorsal vertebrae were extensively eroded. The communication between the sac of the aneurysm and the lumen of the aorta was by means of an opening ¾ inch in diameter in the posterior wall of the aorta at the level of the lower end of the arch of the aorta and the upper part of the descending thoracic aorta. The most prominent part of the aneurysm corresponded exactly with the site of the external ulceration.

Case 2.—Male, age 47, laborer, was admitted to the medical ward of the General Hospital, on October 28th, 1904, complaining of "pleurisy of the lung," cough and expectoration, loss of weight and weakness. The present illness began five months before admission with slight pain in the back and chest, which were transitory and usually worse in the morning. One month later dyspnea on exertion was noticed. It was sometimes very pronounced, but the patient could always remain at his work even during the worst "spells." In July cough set in and during the past month has become much worse, and is aggravated by exposure to cold. It has been accompanied by a whitish expectoration for the last two weeks. Since four weeks he has lost 25 lbs. in weight, and during this time has lost strength rapidly.

For a week he has been feverish at night, but has never had any night-sweats. Swelling of the feet and ankles especially marked in the morning, has been present of late. The urine for two months has been scanty and high colored. Two days ago he was told by his physician that he had a left-sided pleurisy.

In the personal history the following data were obtained : He has worked as a laborer for 15 years. Twenty years ago he had a sore on his penis, which was " cured " in two weeks, and was not followed by any secondary manifestations so far as the patient is aware of. He uses alcohol and tobacco. The family history contains nothing bearing on the present condition.

Physical examination reveals the following : The patient is a fairly nourished man, with rather flabby muscles, cheeks flushed, skin warm and moist.

Lymphatic System.—Glands of inguinal and femoral groups enlarged and palpable.

Respiratory System.—Cough troublesome, noisy, and almost whooping in character, not accompanied by expectoration. Respirations rapid and dyspnea present on exertion. Cyanosis of lips and ears is present.

Inspection of chest shows it to be well formed and symmetrical, with somewhat limited expansion, that on the left side being more shallow than on the right. Palpitation confirms inspection and V. F. is absent over whole of left lung.

Resonance of right lung in front extends from above the clavicle to 6th rib in the nipple line and posteriorly to the 11th rib. On the left side the percussion note posteriorly is flat from apex to base ; in front from apex to 5th rib, and in the anterior axillary line the note is flat throughout. Over a small area at the level of the 2nd and 3rd costal cartilages and spaces reaching from the left sternal border outwards for a distance of 2 inches is skodaic resonance. On auscultation of the right lung, the breath sounds are heard of a vascular character throughout, with somewhat prolonged expiration. Over the left lung the breath sounds are inaudible below the level of the 2nd rib ; above they are distinctly blowing in character. Broncophony is heard all over the left lung.

Circulatory System.—There is slight cyanosis of lips and ears ; no edema of the lower extremities. The veins of the neck are prominent. The radial pulse is of large volume, fair tension, regular in rhythm, no marked thickening of the vessel wall, rate 100, blood pressure 135 millimeters of mercury.

Apical pulsation is visible in the 4th space in the left parasternal line 2 inches from the mid sternum. Palpitation confirms inspection. The right border of cardiac dulness

reaches the middle of the sternum, the upper and left borders cannot be definitely outlined, as cardiac dulness passes into that over the lung area.

On auscultation the sounds at the apex are best heard in the 4th space in the left parasternal line. The first sound is replaced by a soft systolic murmur transmitted to the anterior axillary line. The second sound is accentuated. At the base the aortic 2nd is slightly accentuated and the pulmonary 2nd is accentuated and reduplicated. No murmurs are audible in these areas.

The examination of the abdomen and nervous system revealed normal conditions.

The urine presents the following characteristics: Quantity, 30—40 ounces in 24 hours. Color, clear amber, reaction acid; specific gravity, 1017—1021; albumen present in traces, sugar absent. Microscopically granular and hyaline casts.

The following is a resume of the course of this disease while the patient was under observation in the hospital: The temperature showed a daily variation of about 3 deg. F. The evening temperature reached 101 deg. F. or over after admission, except on two days. The chart presented a hectic type of temperature. The pulse rate at first ranged between 88 and 100, later dropped slightly in frequency to between 72—96, and towards the end increased very slightly. The respiration persisted somewhat increased in frequency.

The cough remained troublesome and kept patient awake at night. It was not accompanied by any expectoration during the first 10 days after admission. On Nov. 1st the left pleura is aspirated, but only two ounces of blood-stained fluid were withdrawn. The physical signs remained unchanged after the aspiration. By the middle of November the skodaic resonance below the inner end of the clavicle had disappeared and breath sounds were only extremely feebly heard over the whole of the left lung. The cough still persisted and was now accompanied by a muco-purulent expectoration. No tubercle bacilli could be detected in the sputum. The patient failed in weight and strength and the skin and mucous membranes became pale. No further change in physical signs was observed till December 1st, when a pleuropericardial friction rub was heard along the left border of the heart. This persisted for one week. On December 12th the patient was allowed to get up out of bed. The cough had become less troublesome, and the expectoration diminished in quantity. The following day, after a slight coughing "spell," the patient had a severe attack of hemoptysis, during which 3 ounces of bright blood were spat up, followed immediately by loss of consciousness for 30 minutes, during which the pulse was extremely small. The patient rested well

through the night, and the following day expectorated some dark clotted blood. For two days the sputum was blood-stained. On December 17th examination of the chest revealed no change in physical signs. During the following week the cough was troublesome, especially at night, but hemoptysis did not recur. The patient, however, gradually became weaker. On the evening of Dec. 27th, after a slight fit of coughing, the patient expectorated 3 ounces of bright blood. He immediately lost consciousness and died in a few minutes. On only two occasions while under observation was pain complained of. On the first day after admission the patient said he felt shooting pains in his chest and back, and during the period that the pleuro-pericardial friction rub was present pain was complained of in the left shoulder.

Only the essential points in the autopsy findings will be mentioned. The examination was performed about 17 hours after death. On removing the sternum the right lung was found to extend across the middle line from above downwards to the level of the third costal cartilages. The left lung could be seen retracted, and shows evidences of adhesions, some fairly recent, others more firm and of longer standing. The left pleural cavity contained about 20 ounces of blood-stained fluid. The right lung presented the microscopic appearances of an emphysematous lung. The bronchi were filled with blood clots. The weight of the lung, 600 grammes. The left lung was much smaller, but heavier than the right ; the weight, 910 grammes. It was firm and almost airless. The root of the lung shows attached to the bronchus the wall of an aneurysm which has eroded the wall of the bronchus. The cut surface of the lung is of a diffuse, greyish yellow granular appearance, and the consistency much increased. The bronchi are filled with mucus and blood. Microscopically, the lung tissue presented the histiological picture of chronic pneumonia. The heart was somewhat enlarged, the ventricular walls thickened and muscle friable. There was slight dilation of the cavities.

The root of the aorta showed marked sclerosis and atheroma. The coronaries presented a patchy sclerosis. From the descending part of the arch of the aorta a sacculated aneurysm, the size of an orange, took its origin. It pointed upwards and slightly backwards. The bodies of the 4th, 5th and 6th dorsal vertebrae were deeply eroded. The left bronchus was compressed and close to the bifurcation practically formed part of the wall of the aneurysm. The esophagus also is in intimate relation to the wall of the aneurysm and its mucosa showed a bluish red discoloration at this level. A second aneurysm was present at the level of the celiac axis and pointed backwards, causing superficial erosion of the

11th and 12th dorsal vertebrae. The walls of the aorta showed extensive sclerosis and atheroma. The stomach contained a large quantity of clotted blood.

Case 3.—Male, 42, was admitted to the medical wards of the General Hospital on November 30th, 1904, complaining of shortness of breath, cough, weakness and swelling of the feet and legs.

The onset of the illness was rather abrupt, coming on after the patient became chilled on leaving a hot foundry where he had been perspiring freely while at work. He felt sick, weak and very chilly before reaching home. The following day he remained in bed, the cough became troublesome, and was accompanied by profuse expectoration. The next day he began to get up in the afternoon. Cough and expectoration persisted, and a few days after the onset of the illness dyspnea set in. This was frequently worse at night, forcing him to sit up in bed. Nausea and vomiting were present and headache was troublesome at intervals. The appetite was poor. For two weeks there was obstinate diarrhea. The swelling of the feet and legs was of one week's standing. The urine has not changed in amount, but recently has been high colored.

Personal History.—The patient has always had heavy work in an iron foundry. Nine years ago he had quinsy. There is no history of rheumatism, but a history of moderate alcoholism and use of tobacco was obtained. He denied luetic infection.

Physical Examination on Admission.—The patient was a well nourished man, lies propped up somewhat in bed. The lobules of the ears, lips and finger tips showed considerable cyanosis ; edema of the feet and legs, backs of thighs and of the lower lumbar region present. The respirations were labored and the alae nasi dilated with inspiration.

The chest was deep from before backward and sub-costal angle wide. The breathing was chiefly abdominal and the chest expansion only ¼ inch. On percussion the note was hyper-resonant on the left side in front of the 4th space and on the right side to the 5th rib ; posteriorly resonance extended to the 11th rib on the right side and at the left base there were three finger breadths of dulness. Auscultation revealed only the presence of a few rhonchi over the lungs and the absence of breath sounds over the dull area. The sputum was abundant, thick and muco-purulent.

Circulatory System.—Pulse rate 112, collapsing, capillary pulse visible beneath the finger nails. The arteries at the wrists are somewhat thickened.

Cardiac pulsation not visible nor impulse palpable. The percussion showed the heart to be enlarged, the transverse

dulness being 5 inches, the left border 1 inch beyond the nipple line. On auscultation a low, diastolic murmur was heard at the aortic cartilage. Liver dulness extended 1½ inches below costal border in the right mammary line.

Urine.—Quantity, 10 ounces; straw color, react., acid; sp. gr., 1018; albumen 12 grammes per litre. Sugar absent, microscopically granular hyaline and blood casts, blood and pus cells.

The patient remained in hospital to the time of his death, which occurred 15 days later.

During this time the most prominent clinical feature was the extreme dyspnea from which the patient suffered. It was constantly present but paroxysms occurred which were extremely severe and prolonged. The slightest exertion brought on a spasm, but more frequently the attacks were spontaneous. The edema of the lower extremities disappeared. The cough and expectoration lessened. The dulness at the left base persisted, and towards the end numerous coarse crepitations were heard at both bases of the lungs posteriorly. The urine at times was smoky and the albumen varied from 2—12 grammes per litre, the quantity of urine from 10—35 ounces in 24 hours.

A few days before death a systolic and diastolic murmur could be heard at the aortic cartilage. The latter was transmitted to the lower end of the sternum. At no time was any pain complained of. Three days before death the patient became delirious at intervals. The pulse became irregular and weaker. The patient developed continous fever on the 5th day after admission, the temperature ranging between 99—102° F. and lasted for 3 days. No sufficient cause could be determined for the elevation of the temperature.

The following is the pathologico-anatomical diagnosis from the autopsy findings: Arterio sclerosis with atheroma. Hypertrophy and dilation of the heart. Aneurysm of the descending part of the arch of the aorta. Erosion of the bodies of the 5th, 6th and 7th dorsal vertebrae. Bilateral hydrothorax, acute bronchitis with broncho-pneumonia, chronic interstitial nephritis, chronic congestion of the spleen and liver.

The aneurysm sprang from the descending part of the arch of the aorta pointed backwards and inwards, eroding slightly the bodies of the 5th, 6th and 7th dorsal vertebrae to the left of the median line. The size of the sac of the aneurysm was almost that of a lemon. The esophagus was somewhat compressed, but no definite signs of pressure of the left bronchus were evident.

From these three cases we might build up the symptom complex of aneurysm in this region, bearing in mind that

only one symptom may be present, and for a time there may be none. Dyspnea seems to be most constant of all ; cough and expectoration are present. The latter varies in character. It may be mucoid, muco-purulent, or even fetid hemoptysis frequently recurring and rather profuse is extremely suggestive of aneurysm. Pain is inconstant and may be slight, even with erosion of vertebrae. The 5th to the 7th are most frequently affected. Pressure on the esophagus may occur. Emaciation may be rapid and may be due to dysphagia, or it may be in some cases dependent on compression of the thoracic duct.

As to physical signs, there are changes within the left pleural cavity referable to the respiratory system, such as consolidation of the lung, or better, diminution of air within the lung spaces, or it may be the picture of an effusion. A tumor in the interscapular region, especially on the left side, whether its nature seems to be simply inflammatory or not, or whether it is pulsating or not, should always suggest aneurysm.

In conclusion, I have little to add. We have here three examples of aneurysm springing from the same site, coursing under totally different signs and symptoms. The third case may be said to have given rise to no symptoms, if we regard the dyspnea as purely uremic. In the second case the clinical course was that of pulmonary tuberculosis. Doubtless this case would have gone to swell the statistics of the white man's plague had an autopsy not been granted. Temperature, accelerated pulse rate, wasting, loss of strength, cough, expectoration, hemoptysis, all were present. There lacked only the one thing needful, the tubercle baccili. The autopsy gave the explanation. The lesson to be learned from the first case is too clear ; no remarks of mine are needed.

We are taught that pain is one of the most constant symptoms of aneurysm, and yet in these three cases, even with erosion of bone, pain was insignificant or absent. We see that physical signs in our cases often are writ in a language which we seemingly cannot read, or they speak in whisperings apparently too low for us to hear. In many cases the fault is our own—our vision is defective, and our hearing dulled.

In these cases the autopsy table gave us the key and bore out the motto of the Pathological Society of London—" nec silet mors "—death is never silent.

A CASE OF DERMATITIS HERPETIFORMIS.

By F. J. Kenny, B.A., M.D., New Westminster, B.C.

Mr. President and Gentlemen,—In this case, which I hope you will have an opportunity of examining, the diagnosis of dermatitis herpetiformis was made by exclusion, and I have great pleasure in submitting the case to the consideration of the members of the British Columbia Medical Society for the rejection or confirmation of the diagnosis.

In 1884 Dr. Louis A. Duhring, of Philadelphia, classed under the name dermatitis herpetiformis several forms of skin disease, which were previously known by distinct titles descriptive of the different maladies. It is now often known as "Duhring's Disease," though no newly discovered skin affection was included by Duhring.

Malcolm Morris' description of the disease is brief and clear. He defines it as a neurosis of the skin, of which the distinctive feature is the multiformity of the lesions by which it manifests itself.

Intense itching is generally but not invariably present. Almost any part of the cutaneous surface may be invaded, but in the majority the limbs, especially the wrists and forearms, are the first points of attack. The lesions, as they subside, leave pigmented areas of greater or lesser extent, the pigmentation varying from dirty yellow to an almost coppery brown. The discoloration is often very persistent. The skin remains thickened and rough, and pitted and scarred from excoriations forming beneath the scabs.

In severe cases the disease is ushered in by fever and general constitutional disturbance, often with marked cutaneous irritation before any lesion of the skin is visible. Thus the relapse can be often foretold many days by the patient. The appearance of the skin eruption is often sudden, erythematous, papular, vesicular, pustular, and noticorial elements may be mingled together in every conceivable variety of size and shape, and in all stages of evolution.

Usually the earliest lesion is a vesicular eruption on an erythematous base. In the earlier stages these dry up and form scabs; later they tend to run together and form bullae, often of considerable size. These bullae do not, as a rule, burst spontaneously, first clear, the fluid contents gradually become opaque, thicken and the bullae slowly shrink, and finally shrivel up to a thick brown scab.

The disease shows a marked tendency to recur. The essential features are :

1. The multiformity of the eruption.

2. Disorders of sensation of varying intensity, itching, burning and pain.

3. The protracted course and constant tendency to exacerbation and recurrence.

4. The absence of any grave impairment of health, in spite of the physical suffering and mental anguish due to the disease.

Diagnosis.—This must rest on the following points :

1. Multiformity of the lesions, and under this head must be counted the scars, pits, and pigmentary blotches left by previous attacks, as well as the vesicles, bullae, etc., actually present.

2. The intensity of the itching.

3. The frequency of relapses.

4. The general refractoriness of the affection to treatment.

Differential Diagnosis.—The following diseases must be considered.

1. Pemphigus, usually well-formed, large blebs in a normal skin, no itching or burning.

2. Hespes, vesicles on inflamed base, pain and burning moderate, no itching, course acute.

3. Erythema multiform, vesicles, blebs and pustules very rare, no itching, very little pain and burning, color of lesions dusty red or brownish.

4. Naticasia, erudated lesions do not arise independently of wheals, and the eruption is not multiform.

5. Eczema, vesicles different, in eczema spread into large irregular areas, in D. herpetiformis they are grouped. Moist erudative surface absent in latter.

Case History.—Miss R., aged 20, born in Manitoba. Father living, 51, of Scotch descent. Mother, born in Montreal, French-Canadian, died from pneumonia 3 days after childbirth. Brothers, one living, one dead, accident. Sisters, four living, one died at two months.

There is no history of any one of patient's family being similarly affected, or sick from any chronic disease.

When 8 years old tonsillotomy was performed for enlarged tonsils ; soon afterwards leucothermia developed. The hair is also gray.

When 14 patient began to menstruate, never regular, occurs only once every three or four months, flow slight, not painful.

At 14 brown pigmentation appeared all over the body

with yellow scleral, gradually deepening. The intensity varies from time to time. These conditions, leucodermia and pigmentation, are usually accepted as of neurotic origin, and seem to point to a disturbance of the nervous system, which may be an important factor in the etiology of the dermatitis herpetiformis.

Diphtheria at 16. Some form of operation was performed on throat two weeks after sickness. Patient then went to Victoria for treatment for her general health, and while there, in the spring of 1903, she contracted varicella, then pneumonia developed, and soon varicella gangrenosa followed, the remains of which are now present in the shape of large irregular scars. Though varicella gangrenosa is supposed peculiar to children, and thus named "Varicella gangrenosa infantum" by Crocker, yet there can be little doubt of its presence in this case at 17.

Present Illness.—After this attack in Victoria some eight or nine months later in Kamloops she was laid up with what seemed to her a recurrence of these ulcers, but from her description it seems to me to have been an attack of dermatitis herpetiformis. The lesions were generally distributed on the limbs, quite different from the location of her later five attacks, which occurred this year. These had the lesions all localized on the left hip and thigh, extending from the crest of the ilium to within two or three inches above the knee joint, the only part of this region unaffected being the internal aspect of the thigh.

The attacks began with a chill after some prodromal symptoms of sore throat, joint pains, etc., for a few days before. The chill lasts about three or four hours, then fever, usually high, 104 to 105 degrees and over, follows, also redness over region affected, intense burning, swelling and pain, no itching in the beginning in this case, then vesicles, blebs, bullae, pustules, which latter open later and discharge for weeks.

The attacks which appeared this year began respectively in February, April, May, June and July, and lasted some two to four weeks, except the last, which is still in progress. The fever remains high as a rule, for three or four days 104 to 106 degrees, then gradually decreases, but continues at night for a long time afterwards. The redness continues till the discharge is free. Vesicles and blebs form in a day or two. During the attack the throat is sore, and the joints painful on movement.

There is sometimes difficulty in urination. I could find no disturbance of sensation of any note.

The present attack seems to differ somewhat from the four previous ones of this year. It is not so severe in most

respects. Though a very severe cough with bloody expectoration preceded the attack of pleurisy. In the former attacks there was nose-bleed. The present attack began July 25th, and is now (Aug. 2nd) subsiding. On July 29th a dry pleurisy developed in the right side posteriorly, and now there is effusion.

Condition between attacks is good, appetite excellent, sleeps well. The weight fluctuates little. The nose bleeds easily. The bowels alternate between constipation and diarrhea.

The urine was examined a few days ago and found free from sugar and albumin.

TWO CASES OF SUPRA-PUBIC PROSTATECTOMY.

By Chas. M. Smith, M.D., Peachland B.C.

D. J——n, a farmer, aged 61, living six miles from office, after suffering for twenty-four hours from retention of urine, sent for relief. Had great difficulty in passing catheter, but at length succeeded with the long prostatic condé variety. Owing to inclemency of weather and almost impassable roads, I was forced to secure catheter in the bladder and close its orifice in usual manner. Later I had him removed to town and instituted regular vesical irrigation, with internal administration of urotropin. In ten days urine lost its alkaline character.

Assisted by Dr. P., I removed the median lobe of the prostate after the following technique : As experiments and frozen sections have proved that the restal colpeurynter has little effect in raising the anti-vesical peritoneal fold I relied entirely on the distention of the bladder, which tolerated (under anesthesia) ten ounces of boric solution.

Abdominal and pubic surface having been shaved and sterilized the previous evening, and a gauze pad saturated with solution of green soap secured over site of incision, patient had, according to my usual practice, 15 grs. of chloretone administered twenty minutes before anesthesia was commenced, which was induced by chloroform.

An incision 2¾ inches in extent in skin and cellular tissue, lower end reaching below symphisis. A transverse incision was made across the fascia at lower angle of wound, thus

affording more room when retractors were used. The point of the scissors was introduced and the fascia further divided to upper limit of skin incision. Recti separated, transversalis divided, and the hooked extremity of a wire retractor introduced into lower angle of wound and rotated 90 degrees. The pre-vesical fat, with venor pledu, was teased apart by fingers and blunt dissector, when with palmar surface of finger resting over bladder, the organ, hitherto empty, was distended by warm boro-glyceride solution.

A tenaculum was introduced through the wall of the bladder at the extreme upper limit of the wound (for once the bladder is emptied it is dangerous to extend the wound upwards) the scalpel entered through the same opening and carried steadily downward for 1¼ inches. Two pairs of tissue forceps were used to bring forward the bladder and hold margin of wound open. Irrigating fluid was permitted to run until the obscurity resulting from presence of blood had cleared, but as the discoloration returned from even the gentlest manipulation, a short cylindrical speculum was inserted with distal end surrounding the prostate gland, wound in bladder having first been extended slightly.

With finger of assistant in rectum pressing prostatic portion firmly against speculum, the fluid within the lumen of instrument was removed by small sponges held in forceps, and a good view of the sessile enlarged middle lobe obtained. This had acted as a ball valve at urethral orifice. Assistant raised the gland well towards surface; speculum removed, mucous membrane incised, separated laterally, anteriorly and posteriorly, and lobe removed by the Emmett trachelorraphy scissors with blades closed. The free hemorrhage was controlled by irrigating with a hotter solution. The first joint of index finger could now be introduced into urethral opening from bladder.

Wound was closed, save at lower end, with two tiers of suture of chromicized gut, the first alternating with the second and piercing the cut edges of vesical incision ; the second row inserted as Lembert sutures. A soft rubber tube of ½-inch lumen was held in bladder by one of the Lembert sutures, and dipped at its outer extremity below the surface of an antiseptic solution. A drainage tube of iodoform gauze wick, enclosed in oil silk, was laid along line of sutures with its end protruding from lower extremity. The tube was removed after 48 hours.

Skin incision was closed with interrupted S. W. gut sutures and surface dusted with iodo-bismuth, No. 2. As the first case was one suitable for vesical suture, the second forms a contrast in that the tissues were in such an unhealthy condition as to render such a procedure unsafe.

O. S——n had led a catheter life for three years ; was now 53 years of age. Had been sounded for calculus by Dr. Peters, of Toronto, with negative results. Was suffering from right-sided orchitis on my first visit. Used the aspirator ; atrophy followed, as revealed at my second visit about a year subsequently.

He was now suffering from a suppurating left testis. With a pulse of 136, temperature of 104-5, and respirations 28 per minute, I did not deem it safe to castrate. Made free incision under local anesthesia, curetted sac, formed by adherent tunics, tamponaded with gauze. Healing took place rapidly. A rectal examination revealed a prostate as large as an ordinary lemon. Although the severe urethritis subsided urethral discharge continued and patient suffered intensely from pain in glans penis, requiring use of rectal suppositories. Hemorrhoids and constipation also added to his "sea of troubles."

Patient was brought into town and placed in a specially prepared room, under charge of a trained nurse, preparatory to radical operation. Owing to the irritable and contracted bladder, which would not tolerate more than four ounces of fluid, vesicular lavage was not satisfactory. As to the operation it is only necessary to refer to some minor details in which the technique differed from that described in first case. The prostatic enlargement constituted an indurated collar, choking the urethral opening. A V-shaped portion was removed by the rongeur from the inferior half, while the upper portion was removed by fingers and ostetatome. Vesical wall was much thickened and unhealthy and was left unsutured. A soft rubber drainage tube was secured and bladder wound in manner described by Greig Smith for enterotomy and while the vesical end only entered within the bladder a sufficient distance to secure its stability, the external end was attached to the <⁵ shaped piece of an old stethoscope at B. Tubing from an ewer containing antiseptic borated solution was attached at A and another piece led from C to a vessel on the floor.

Irrigation was performed by the alternate closing and opening of the two tubes attached at A and C by means of modified clothes-pins.

This apparatus can be arranged on a plan suggested by Dr. Dawbarn, of New York Polyclinic, which affords automatic intermittent flow into bladder and receptacle on floor. Boric acid was dusted over wound, a piece of gutta percha tissue laid in position ; absorbent cotton packed over this and secured by inter-digitating adhesive plaster strips.

Patient recovered, gained in weight and strength, but

was obliged to wear an apparatus adapted from a large tracheotomy tube with rubber tubing, supplied with pinch cock, and secured to waist-belt, owing to the persistence of fistula. Had the physical condition of the patient permitted I should have followed the supra-pubic incision with a perineal one, and thus secured through and through drainage.

It is worthy of remark that the atrophy of one testis and destruction of the other by suppuration had no beneficial effect on the prostatic hypertrophy. However, we hear very little to-day of the much vaunted cure of prostatic enlargement by orchidectomy.

THE ROENTGEN RAYS IN GENERAL PRACTICE.

By H. Rundle Nelson, M.D. (Dublin University), Victoria, B.C.

Gentlemen: In this short paper to-day, it is not my purpose to treat this subject from the scientific standpoint of the radiologist, but rather from the standpoint of utility to the surgeon and general practitioner. I will, therefore, simply bring before you some few cases that have come into my hands in British Columbia and refer to others that have a direct bearing on the subject.

With regard to fractures, so much may be learned as to the misplacement of the ends of the bones and their relative positions, and also where a joint is implicated, if there is a dislocation, the rays will be found to be a most valuable aid, and especially is this the case where the method of screen examination is used. There are three ways in which the case may be examined; first the radiograph where a photograph, so to speak, is taken, and the result handed to the surgeon in charge some time after the examination. This method is of use as a permanent record and where the injury is an old one. But where the injury is recent the best method is by the fluoroscope, or, better still, the screen. The difference in these two last named methods only lies in this fact; with the fluoroscope only one person at a time can see the object, and, consequently, consultation at the time is difficult. By the screen method, which I prefer to employ, the whole room is darkened and acts as the fluoroscope, and two surgeons may easily confer together as to the condition present. A dislocation may be reduced or a fracture set under the illuminated screen; the patient, if necessary, being put under an anesthetic.

In illustration of this method I may cite two cases. Dr. Robertson brought me a little girl who had fallen off a sidewalk the previous evening, injuring the elbow. He had set it by manipulation, and certainly it seemed in good position, but the screen showed the epiplysis of the humerus was not in place. This was at once and easily rectified under chloroform.

Dr. Fraser had a very similar case, in which Dr. Jones also participated; a little girl with injured elbow. This was also treated in the same way, and in each case the resulting joint was almost perfect. There is no small degree of satisfaction in knowing to a certainty that the apposition is correct and that every reasonable precaution has been taken, for many a man will worry for days over such a fracture, and all this is now easily done away with.

In ununited fractures the cause may frequently be found in a piece of dead bone which can then be removed.

Carl Beck, of New York, recognizes to the full the advantages of X-ray examination in fracture cases, and he has written a very powerful article on this subject in the "Medical Record," of March 24th, in which he states and proves from cases in his practice that the diagnosis and ultimate treatment of a case may be greatly influenced by the condition made known in a Rontgenogram.

Passing now to the location of foreign bodies, these, for all practical purposes, may be divided into three classes.

A. Those which have gained entrance through the mouth or nose and have become impacted in the trachea or esophagus, or have passed into the stomach or bronchi.

B. Calculi.

C. Bullets and missiles introduced by force.

A. Of the first class I have had several instances. A little nigger boy, aged 8 years, was brought to me by Dr. Robertson. He was supposed to have swallowed a large glass bead four days previously; now some signs of dyspnea had developed and a slight whistling noise might sometimes be heard in breathing. From physical signs it was not clear where to expect to find it, but the screen showed it at once in the trachea at the level between the 5th and 6th cervical vertebrae. The bead was in an upright position, and breathing was carried on through the hole in the bead.

Having marked on the skin of the throat its position we took him to hospital and Dr. Robertson extracted it by a low tracheotomy; recovery was uneventful.

This might be spoken of as a positive result; the converse may also occur, as in the case of a little baby one year old who was thought to have sucked a piece of coal grit into

its lungs ; it had frequent fits of coughing and spasm. The screen and also the Roentgenogram showed the lungs quite free of any foreign matter, and it was very reassuring to the parents to know that no operation would be necessary. It proved a case of laryngismus stridulus.

Foreign bodies in the intestine, as a Murphy's button, for instance, may be watched from day to day.

B. The second class, Calculi :

This is a most important class, and the Roentgen rays are a very decided acquisition in making a diagnosis, not only whether stones are or are not present, and whether in the kidney or ureter, but also the number of stones may be indicated and a surgeon is therefore warned as to the number he must remove and is thus helped to perform a complete operation. Vesical calculi can also be demonstrated. Gall stones are not easily shown, as they are frequently quite transparent to the rays.

Thurston Holland, of the Royal Infirmary, of Liverpool, has been able to demonstrate a renal calculus weighing as few as three grains. In this work a special apparatus is advisable, consisting of a compressor and diaphragm. By this means the abdominal contents are squeezed aside and less resistance is offered to the path of the X-rays, and the tube may be brought in closer. Possible sources of error are : fecal impactions and calcified glands. It is therefore not wise to make a positive diagnosis of calculus from a doubtful shadow in an X-ray picture, but one must carefully weigh the concomitant symptoms of pain and hematuria, and in a doubtful case a second negative ought to be taken after an interval of some days, when the difficulty may be successfully cleared up, a good purgative having been administered in the meantime.

C. I come now to that class of foreign bodies of which I may take the bullet as the type.

It is now comparatively certain and easy to locate accurately such a body. There are many devices for this, but I consider McKenzie Davidson's method the best. Its chief drawback is that it requires special and costly apparatus, but being mechanical no calculations are introduced into it.

A special modification is used for foreign matter in the eye.

The difficulty in extracting a needle is great even when its position is very clearly shown, and I think that it is a frequent cause of difficulty to make the incision parallel to the needle instead of at right angles to it so as to strike it at the centre.

Perhaps it is not out of place in this paper to call your attention to the safeguard that is afforded a surgeon by an

X-ray examination of an injury such as a fracture. Should medico-legal proceedings in any way crop up he is in a much better position if he is able to produce a Roentgenogram or the corroborative evidence of the radiologist.

THE THERAPEUTIC ACTION OF THE ROENTGEN RAYS.

Almost all known diseases have been treated by the X-rays, and in the vast majority of cases some improvement, whether permanent or transitory, has been reported by some worker.

But I do not advocate an indiscriminate use of this really powerful agent. There are a number of conditions in treatment of which the rays now hold an undoubted position.

I will merely mention in passing, that a number of skin diseases receive great benefit, namely : ringworm, favus, sycosis, eczema, both dry and weeping, acne and pruritus, and many others.

In the treatment of ringworm wonderful strides have been made and Sabouraud and Bordier in Paris, by means of certain sensitive pastiles which he uses, is now able to treat a case in a single seance with almost certain result. The aim is to cause just sufficient reaction to cause depilation of a temporary character, so that when the hairs grow again they are healthy ; a dose slightly in excess of this quantity may be given in hypertrichiasis and produces permanent alopecia as desired.

Sabouraud's statistics in Paris have risen from 110 cures per annum by old methods to 504, and the average duration from 27 months' treatment to 6 weeks.

I come now to that all important disease, cancer. Although some few inoperable cases have actually been reported cured by reputable authorities, still we can not yet hold out the hope that the X-rays have proved themselves anything like a specific. But this we may almost certainly say, they will allay pain and arrest discharge, while very frequently causing a retrocession of the primary growth. Sarcoma is said to yield more readily than carcinoma.

Epithelioma are considered by such authorities as Belot, Freund, Pusey and Seguira to be very amenable, and this is to be expected, as the more superficial the growth the more easily it is reached ; the result greatly depends upon the technique employed and the condition of the tube, whether it is of high or low vacuum, as it is well recognized that the low or soft tubes cause more reaction at the surface while the harder ones penetrate deeper, almost leaving the surface untouched.

Rodent ulcer and lupus vulgaris are very amenable to

treatment, though, as in all other things, failures may be met with.

I had an interesting case of epithelioma of the left alae of the nose referred to me by Dr. Frank Hall, Victoria, last December. The patient, an elderly man of good physique, had a small ulcerating growth of about three years' duration removed from the site a year previous, and the wound had never properly healed and recurrence had taken place. Dr. Hall removed it again in November, 1905, and sent him to me on December 3rd for post operative treatment.

The site was still angry looking and constantly discharging a little, and a large scab was formed.

From the third application the discharge ceased and the scab began to dry up, and by Jan. 2nd, 1906, the whole condition was apparently healed, the scab came away on Dec. 18th, after six seances.

Total number of seance, 12. Up to this date there has been no recurrence and the cosmetic effect is good, the scar being fairly soft.

The conditions of treatment which I advocate in cancer are briefly these : If the case is operable, operate ; and then apply post-operative X-ray course about 2—3 weeks later. By removing the mass of growth or curetting, the surgeon is following out sound treatment, and in addition is removing an obstruction which would prevent the rays reaching deeper-seated and outlying particles which the knife cannot reach. Thus each method is a help to the other and in combination constitute the best treatment.

Small epithelioma may not require the knife at all ; the rays themselves can remove them.

Always a larger area than that actually involved should be " rayed," so as to strike any outlying particles.

The old-fashioned and often dirty method of enveloping the patient in protective lead foil is now superseded by the clean glass aseptic shields and there is no discomfort in the administration.

There are, however, a few cases which derive no good from the treatment, but these do not warrant its being laid aside or condemned.

There is yet another disease which has been greatly benefited by the rays, which has proved almost hopeless under any other treatment, namely, leukemia. I will just give a brief account of a case treated by Ironside Bruce at Charing Cross Hospital, London, and reported with another one in the " Lancet " for January, 1906.

The patient, a woman aged 50, had all the usual signs of leukemia, which I need not recount here beyond that the

spleen was tender and enlarged beyond the middle line and could not be felt above the pubes.

The patient was under treatment between July 26th, 1905, and December 8th. During that time she gained weight, the abdomen decreased in size, she felt better in every way. The spleen retracted to 1½ inches above the pubes and 1 inch to left of umbilicus.

A blood count was constantly taken, and the results were as follows :

	Red	White	Rat o
July	3.047.520	400.147	1- 7.6
August	3.150.000	499.000	1- 6.3
September	3.810.000	290.000	1-13.1
October	3.975.000	117.000	1-34
No ember	4.550.000	72.000	1-63
December	4.550.000	32.200	1-141

While the hemoglobin rose from 60 to 81 per cent. in about four and a half months' treatment.

In conclusion, let me sound a note of warning to all of you who are using the X-rays ; be very careful of yourselves, and remember that if you are not shielded you are absorbing a small dose every time you excite a tube, whether for therapeutics or for examination. Particularly would I warn you against testing your tubes by comparing the result as shown in looking through the fluoroscope at your own hands.

It is so simple a method but so very dangerous. True, it may take eight or ten years to produce its deadly result and you cannot know that it is affecting you all this time, and then it may be too late, the cancerous disease it induces is absolutely incurable and although giving up ray work may arrest it for a time, yet damage done will not be repaired.

The epithelium of the testes and ovaries can also be affected and sterility produced ; and in London hospitals the nurses are constantly changed so as to minimize this danger and they wear heavy rubber aprons opaque to the rays.

The best method is to place your tube in a lead glass shield, allowing the rays to come out at only one aperture, which is directed on the required area.

In a very long exposure it is well to put a single thickness of linen over the part irradiated, as this absorbs the most virulent rays and will often save a radio dermatitis.

The paper was accompanied by illustrative Roentgenograms and a demonstration of McKenzie Davidson's method of localizing foreign bodies.

Clinical Department.

Cerebral Tumor Simulating a Vascular Lesion. F. G. FINLEY, M.B. (London), M.D., Assistant Professor of Medicine McGill University, Montreal, in *Montreal Medical Journal.*

The symptoms denoting the presence of a cerebral tumor are usually gradual in onset and progressive in character. Occasional exceptions are, however, observed, and the symptoms if of a sudden origin are usually due to a complicating vascular lesion, either hemorrhage or thrombosis.

The object of the present communication is to call attention to a class of cases beginning with symptoms of hemiplegia or apoplexy which may completely mask the true nature of the malady. The following case is one in point:

Joseph L., aged 47, stonecutter, was admitted to the Montreal General Hospital on April 1st, 1905, and died on May 25th. He complained of headache, weakness of the right arm, and some difficulty in speaking.

He cannot remember any previous illnesses, and denies having had venereal disease. He has smoked heavily, but was always a moderate drinker. His father died of rheumatism, while his mother and two of his children died of tuberculosis. The present illness came on during sleep. He went to bed feeling well and strong, and on the morning of March 15th he noticed weakness in the right arm and difficulty in speech. After keeping at work for eight days he was obliged to stop owing to inability to hold his tools.

Present condition.—The patient is a strongly built and well developed man. There is weakness of the right face and arm and slight difficulty in finding certain words. The gait is normal and the foot is not dragged.

On the right side the face shows flattening of the labio-nasal fold, the movements of the forehead are defective and the eye is not so firmly closed as on the other side. He is unable to whistle, but emotional movements, such as laughing, are equal on both sides. The tongue is distinctly protruded to the right. The right arm can be raised only to the level of the shoulder or slightly above it, the grasp is very weak as are also the muscles of the wrist and elbow. Dynamometer right hand 0, left 40. The motor power in both legs is slightly diminished and apparently equally so. There is an entire absence of rigidity of the limbs, no ataxia and the sense of posture is normal. Th knee jerks are slightly increased, especially the right, no ankle clonus. The abdominal and epigastric

reflexes are absent on the right side, the other superficial reflexes are present.

Speech is somewhat defective. He mentions the names of most objects in French, sometimes in English. He can give his name, but not the number of his house. He understands everything that is said to him, but as he has never learned to read or write it is impossible to investigate his powers along these lines. Apart from emphysema the other organs are normal. The pulse during the first three days varied from 56 to 88, the temperature during the same period 96.8 to 98.6, the urine is normal, and at no time did it contain albumen or sugar.

During the first few days he complained of headache, but this was never severe, and he always slept well. The face and arm became weaker and his mental condition showed progressive deterioration; he became very dull and lethargic with incontinence of urine and feces. Motor asphasia became marked and ultimately he was unable to name any object, although he recognized their use. The leg began to show some weakness whilst ankle clonus and increased knee jerk developed, especially on the right side. The leg eventually became extremely rigid. There were two attacks of irregular convulsive movements of the limbs. The pulse was frequently slow, 52 to 60, later it became increased in frequency. Vomiting was present on two occasions only. He ultimately passed into a comatose state with contracted pupils and rapid respiration, dying ten weeks after the first onset of symptoms. The eyes were examined by Dr. Kerry a month before death; the pupils were equal and active and the eye grounds normal.

Iodide of potash was administered in increasing doses, but had to be discontinued on account of a severe stomatitis which it set up.

Dr. B. D. Gillies, who performed the post mortem examination, has kindly furnished the following report:

Anatomical diagnosis.—Tumor cerebri, patchy sclerosis aorta and coronary arteries; patent foramen ovale: chronic adhesive pleuritis (right); bronchopneumonia and abscess of the lung (left); chronic congestion of the liver; duodenal ulcer.

The brain, after removal of the dura, showed flattening of the convolutions in the third frontal, ascending frontal and parietal regions of the left hemisphere, also a slight reddening of the cortex over the third left frontal region. The pia was smooth and glistening throughout. The first temporal convolution is compressed by the bulging of the upper boundary of the Sylvian fissure.

On section after hardening the brain, a tumor was found extending from near the anterior end of the Sylvian fissure in the third frontal convolution backwards almost to the posterior end of the sulcus. The growth measured two inches from without in, and two and a quarter inches from before back. The edge is irregular and no definite capsule was evident except at the upper and

anterior end of the tumor in the ascending frontal convolution where it was immediately subcortical. Behind this level it merged with the grey matter of the cortex and came very close to the surface, especially in the tissues forming the roof of the Sylvian fissure. The inner border of the growth was ill-defined and extended in for two inches from its outer edge.

Several small dark brown hemorrhagic areas were scattered through the growth. Microscopically, the growth proved to be a spindle-celled sarcoma.

The diagnosis on admission seemed to lie between hemorrhage and syphilitic softening, the former being regarded as more probable. With the progress of the case neither of these hypotheses seemed quite satisfactory, but it seemed possible that a progressive specific arteritis with extending thrombosis of the vessels might account for the increasing paralysis and deepening torpor and lethargy.

The usual symptoms of cerebral tumor were absent. Headache, although present for a short time, was never severe or persistent; vomiting only occurred on two occasions, and optic neuritis was absent a month before death. Had more weight been laid on the gradually increasing stupor, on the slow development of paralysis and spasm in the leg and on the two convulsions, a more correct opinion might have been reached; the sudden onset, however, was so strongly in favor of a vascular origin that these symptoms did not secure sufficient consideration.

The localization of the leison offered less difficulty than its pathological character. A cortical condition was improbable owing to the absence of early Jacksonian attacks, whilst the fact that the leg escaped paralysis in the earlier stages suggested the subcortical region rather than the internal capsule as the most probable site.

In the light of the post mortem examination the tumor must have been latent for some time, and the occurrence of hemorrhage into its substance apparently caused sufficient enlargement to involve the motor fibres passing from the centres of the arm and face, thus accounting satisfactorily for the sudden paralytic symptoms.

The clinical course of most instances of cerebral tumor is marked by a slow and progressive advance of the symptoms. The occurrence of hemorrhage or softening in the neighborhood, or even of hemorrhage in the substance of the growth itself, as in this case, is, however, marked by a sudden onset or exacerbation of a symptom. Hemiplegia, accompanied in severe cases by loss of consciousness, ensues in precisely the same fashion as in ordinary form of rupture or occlusion of the cerebral vessels. Where evidence already exists of the presence of a neoplasm, the recognition of such cases is not usually a matter of difficulty. A history of preceding severe head-

ache or the existence of optic neuritis would give the clue to the underlying condition.

The difficulty of recognizing the presence of tumor in cases of sudden onset is greatly enhanced when there is no previous history suggesting coarse disease, or when, from any reason such as unconsciousness, no history is forthcoming. Here the symptoms closely simulate those of ordinary hemorrage or softening.

Hemorrhage, as might be expected, occurs in the more vascular forms of tumor, particularly in glioma, and may take place in the tumor itself or on the vascular layer at its periphery. In the latter case the extravasation is occasionally large, and may even rupture into and flood the ventricles. Cerebral softening is frequently found at the surface of new growths as the result of pressure, or it may follow occlusion of vessels from pressure or by invasion of the lumen of the vessel by a neoplasm. In the case of syphilomata concurrent disease of the vessels is often found.

The onset of such cases is commonly marked by paralytic symptoms, but in the case of extensive hemorrhage or even of softening, the clinical picture may be that of apoplexy. Hughlings Jackson records an instance of a patient brought to hospital comatose, in whom the diagnosis of apoplexy was made. The autopsy revealed a hemorrhage into the lateral ventricles originating from an adjacent tumor. A parallel instance is related by Martin, in which the terminal symptoms were due to softening. The patient, after being confined in an asylum for some years, became rapidly unconscious, there was a doubtful paralysis of the right side and the right pupil was dilated. The autopsy revealed a tumor the size of a hen's egg in the right hemisphere, forming the roof and part of the outer wall of the ventricle and pressing on the optic thalamus. There was softening of the basal ganglia and of part of the right hemisphere. West and Banks have recorded somewhat similar instances.

Bouveret, in recording two cases of sudden onset of paralysis in cerebral tumor, associated in one case with hemorrhage, in the other with softening, remarks on the recurrent character of the attack, within a period of a few days or weeks. Although such a course is not unknown in ordinary hemiplegi, it is certainly unusual to find the attack following another at such short intervals, and this writer is apparently inclined to regard such occurrences as suggestive of latent tumor.

That paralysis of sudden onset in cases of cerebral tumor is not invariably due to vascular lesion is shown by two cases recorded by Gowers. Post mortem examination failed to reveal any indication of hemorrhage or softening in either of these instances. Gowers suggests that inhibition of the motor area is responsible for symptoms, and he regards them as analogous to the sudden occurrence of a convulsion during the course of the disease.

The occurrence of hemorrhage or softening associated with cerebral tumor must be regarded as a grave symptom. Should the patient survive the immediate effects of the attack, recurrence as shown by Bouveret's cases is apt to take place. The fatal issue is frequently precipitated by either of these accidents, and of the cases above referred to all proved fatal within a period of ten weeks.

Proceedings of Societies.

BRITISH COLUMBIA MEDICAL ASSOCIATION.

The seventh annual meeting of the British Columbia Medical Association was convened in New Westminster, B.C., on August 1st and 2nd, and was one of the best attended and most successful in the annals of the association.

The meeting was called to order at 2 p.m. on Wednesday, August 1st, the President, Dr. Geo. Drew, of New Westminster, in the chair. After routine business had been disposed of, Dr. Jos. B. Eagleson and Dr. C. A. Smith, both of Seattle, were introduced to the meeting and welcomed by the President. The President then delivered a very interesting and able address, touching upon some historical reminiscences in connection with New Westminster's association with the first legislation relative to the practice of medicine in British Columbia, in the days when this city was the capital of the colony, and afterwards dwelling on the subject of medical ethics. In the afternoon the association visited the Provincial Hospital for the Insane, which is situated in New Westminster, and after inspecting the institution, with which all expressed themselves as much pleased, they were entertained in the beautiful grounds of the hospital at a garden party by Dr. C. E. Doherty, the Medical Superintendent, and Miss Doherty, about two hundred being present.

The matter of the proposed reduction, by several American life insurance companies, of the fee for examination for life insurance was discussed very fully, and a resolution was passed whereby the members of this association pledged themselves to accept five dollars as the minimum fee for this work.

The question of Patent and Proprietary Medicines also received considerable attention, when the following resolutions were passed unanimously:

Whereas it is morally incumbent upon every medical man to protect the public against disease and sickness as far as possible; and

Whereas, the so-called patent medicines are sold without re-

striction throughout this Province, thereby constituting a menace to the public health ; and

Whereas proprietary medicines, the composition of which are not known, are prescribed by regular physicians to a certain extent ; therefore be it

Resolved, that the British Columbia Medical Association place itself on record as being in favor of the enactment of suitable laws for the protection of the public against patent medicines ; and

Resolved, that it appoint a committee, whose duties it shall be to institute such measures, or support them if introduced by our legislators ; and

Resolved, that it strongly disapproves of the unscientific and possibly dangerous practice of prescribing the secret proprietary medicines ; and

Resolved, that the British Columbia Medical Council be requested to communicate with all physicians of the Province, drawing their attention to the undesirability of prescribing these secret proprietary medicines.

Dr. Hart, of Victoria ; Drs. Wm. Stebben and McTavish, of Vancouver ; Dr. O. Morris, of Vernon ; and Dr. Walker, of New Westminster, were appointed a special committee to carry the above into effect.

The number of papers presented was largely in excess of any previous year, and the discussions following each were most instructive.

The officers for the ensuing year are as follows: President, Dr. R. L. Fraser, Victoria ; Vice-President, Dr. J. M. Pearson, Vancouver ; Treasurer, Dr. J. D. Helmcken, Victoria ; Secretary, Dr. R. Eden Walker, New Westminster. Victoria was selected as the next place of meeting.

R. EDEN WALKER, *Secretary.*

A TENDER, painful swelling just at or beyond the upper, outer border of the breast, and near the edge of the pectoralis major, is usually an inflamed lymphatic gland. In its presence it is well to look for some skin infection about the waist line, *e.g.*, furuncles, which are not rare at this site as a result of irritation by the corset. *Per contra*, with a boil, abscess, dermatitis or other infection at or above the waist line, one may be on the lookout for glandular enlargement at the point referred to.—*Am. Jour. of Surg.*

IN all operations in the left subclavian triangle of the neck, the location there of the thoracic duct must not be forgotten.—*Am. Jour. of Surg.*

Physician's Library.

Messrs. W. B. Saunders Company announce for publication in the early fall the following excellent and practical works:

"Keen's Surgery: Its Principles and Practice" (Volume I.)
"Sobotta and McMurrich's Human Anatomy" (Volume III.)
"Webster's Text-Book of Gynecology."
"Hill's Histology and Organography."
"McConnell's Pathology."
"Morrow's Immediate Care of the Injured."
"Stevenson's Photoscopy" (Retinoscopy and Skiascopy).
"Preiswerk and Warren's Atlas of Dentistry."
"Goepp's State Board Questions and Answers."
"Lusk's Elements of Nutrition."

The most notable announcement is the new work on surgery, edited by Dr. W. W. Keen, complete in five octavo volumes, and containing over 1,500 original illustrations. The entire work is written by the leaders of modern surgery—men whose names are inseparably associated with the subjects upon which they have written. Without question, "Keen's Surgery" will represent the best surgical practice of to-day.

"A Compend of Operative Gynecology."

This is a practical handbook for students, and has been based on lectures by Wm. Seaman Bainbridge, M.D., at the New York Post-Graduate Medical School and Hospital. His collaborator was Harold D. Meeker, M.D., of the same institution. New York: The Grafton Press.

"Lectures on Midwifery for Midwives." By A. B. CALDER, M.B., M.R.C.S. Price, $1.50. London: Baillière, Tindall & Cox. Toronto: J. A. Carveth & Co.

In this country, it may be said, the status of the midwife is not the same as in Great Britain. Here the midwife is chiefly met with in the rural districts, and her claim to qualification is apt to rest on two facts—first, she has had several children herself, and is therefore "experienced;" and second, she is in need of employment of some kind, and naturally takes to that form in which she may be said to have "specialized"—in her own way. To such a person this excellent little work might be of some assistance, but it is just possible such a subject as placenta previa would prove a hopeless stumbling block to her. To those who are qualifying in hospitals to become professional nurses the work will doubtless

be of great value. Also to that ever-increasing class, the intelligent young mother, it might prove useful; but again, on second thought, a little knowledge might be a dangerous thing, and the reading about dangerous complications only serve to perhaps needlessly alarm her.

"Uric Acid—The Metabolism in Gout." By FRANCIS H. MCCRUDDEN, of the Laboratory of Physiological Chemistry of Harvard Medical School. New York: Paul B. Hocker, 69 East 59th Street.

This treats of the chemistry, physiology and pathology of uric acid and the physiologically important purin bodies. Then there is a discussion on the metabolism in gout. The book is a valuable contribution to a complex subject.

"Phlebitis and Thrombosis." The Hunterian Lectures, delivered before the Royal College of Surgeons of England. By WARRINGTON HOWARD, F.R.C.S. Price, $1.50. London: Baillière, Tindall & Cox. Toronto: J. A. Carveth & Co.

A series of three lectures dealing with the subject in a rather exhaustive and thoroughly satisfactory manner.

"International Clinics." Vol. II. Sixteenth series. 1906.

This volume of this justly celebrated work is a very fine and valuable production. The illustrations are especially good, there being two colored plates, and many other plates and diagrammatic figures. No one can afford to be without these quarterly productions of up-to-date medicine.

"The Health: Care of the Baby." By LOUIS FISCHER, M.D., New York, is a small practical handbook for mothers and nurses. It is published by Funk & Wagnalls Company, New York and London. Dr. Fischer, of course, handles the matter contained therein in a clear and competent manner.

The second annual report of the Henry Phipps Institute for the Study, Treatment and Prevention of Tuberculosis is a rather bulky paper volume of 452 pages. It contains a great deal of information on this subject, and what has been accomplished within the year 1904.

The American Roentgen Ray Society report for 1905 is received. It is a neat volume of the transactions of this society.

The Canadian Medical Protective Association

ORGANIZED AT WINNIPEG, 1901

Under the Auspices of the Canadian Medical Association

THE objects of this Association are to unite the profession of the Dominion for mutual help and protection against unjust, improper or harassing cases of malpractice brought against a member who is not guilty of wrong-doing, and who frequently suffers owing to want of assistance at the right time; and rather than submit to exposure in the courts, and thus gain unenviable notoriety, he is forced to endure black-mailing.

The Association affords a ready channel where even those who feel that they are perfectly safe (which no one is) can for a small fee enrol themselves and so assist a professional brother in distress.

Experience has abundantly shown how useful the Association has been since its organization.

The Association has not lost a single case that it has agreed to defend.

The annual fee is only $2.50 at present, payable in January of each year.

The Association expects and hopes for the united support of the profession.

We have a bright and useful future if the profession will unite and join our ranks.

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COMMENT FROM MONTH TO MONTH.

Clean milk commands a widespread and intense interest. Farmers, dairymen, creamerymen, retail dealers, consumers and babies are all concerned in its handling from the cow to the infant. The latter is the most concerned, but incapable of protecting itself. Others must do it for it. The subject forces itself home more particularly to the parents of the infant, and to physicians who are called to attend infants afflicted with disorders of digestion, especially in the summer months. It is, therefore, because of the limited agitation that the question of clean milk is a spasmodic one. After September and prior to the following June, it is practically a closed book. A campaign, therefore, in order to be successful, should be continuous all the year round.

There are then a great many classes to be educated, and there is a commercial as well as a professional, and as there certainly is a humanitarian aspect to it; the right and proper handling is an important element in the enormous saving of child life, to say

nothing of the product as a clean food of everyday consumption. Producers, the farmers and the dairymen, must be taught to faithfully and intelligently collect milk, so far as it is possible to do it, in an aseptic manner. By simply following the ordinary rules of cleanliness much can be done in this direction, and where milk is collected for distribution in large centres, especially in cities, the collection of it, as well as the surroundings from which it is derived, should positively be under the inspection of the board of health most and directly concerned.

The retail dealers should also be closely looked after by inspectors appointed by the authority of the local board of health, and it should be made incumbent on them to supply to all their customers, without distinction, at stated periods all the year round, bi-monthly or quarterly, circulars, of rules not too elaborate, for the care of milk after it leaves their hands, and how it is to be fed to babies, especially in the months of highest temperature. These circulars should, of course, be framed by the local board of health. The retail dealers simply act as distributing agents of them.

Where this subject has been attacked in a consistent and continuous way, the incidence of diarrhœal diseases and the resultant loss of life in infants has shown a markedly great subsidence. In the State of New Jersey, where powerful influences have been at work for the past nine years, this fact is strikingly marked, and presents an object lesson which the simplest can appreciate. In that State the deaths occurring in children under five years of age per 100,000 of the population were, in 1896, 561.1. By degrees the descent has been gradual until in 1905 the rate stood at 460.0. When, however, you come to inspect the statistics of the decade prior to 1896, the vast decrease is more strikingly brought home to us, for at that time the rates ran into the six, seven, and eight hundreds. These good results may be credited chiefly to the attention the milk received after being delivered to the consumer, and here the board of health seems to have massed its forces. But all along the line, from the teat of the cow to the palate of the infant, this prime and essential food should be rigidly guarded from outside infection.

At the door of the milk question, however, must not be laid the charge that it is responsible for all the disorders of digestion in infancy, for it is not the case. The unwise and promiscuous manner in which many people feed fruits, uncooked, to their children, must lay claim to some of it. The habit of displaying fruits in shop windows and even on the sidewalks, is a foolhardy and unwholesome one so far as the consumer is concerned, though it may be good business from the standpoint of the shopman. It is scarcely necessary to call attention to the dust from the adjacent thoroughfare which collects upon these, nor to the innocent, though mayhap sometimes harmful, handling of them. The fact remains, that a goodly part of it, peaches, plums, pears, grapes,etc., is eaten *holus bolus*, without even a perfunctory essay at cleanliness. Who will tell of the countless thousands of germs thus introduced inside the human economy, to say nothing of the carelessness as to whether the child does or does not actually consume considerable portions of decayed fruit? It would seem well for fruit to be displayed from glass cases.

While on the subject of clean and wholesome foods, a word might be said about the handling of the staff of life—bread. Why should bread be delivered as it now is by the same hands of a driver who may have to do with handling his horse? Bread should be delivered in paper bags or boxes.

A great many think confectionery is harmful to children, so it is if abused ; but the growing child's economy demands a certain amount of sugar. Confectionery is not harmful if not given to excess, and a good quality be chosen. It should never be given within an hour of meal time, as it destroys the appetite for ordinary, which is generally nutritious, food. Confectionery is not harmful to teeth, unless allowed to remain in small portions in and about them ; even then the saliva soon dissolves the sugar. The teeth of children, as with adults, are mostly destroyed through neglect to clean them properly and regularly.

It is comforting to know that Canadian confectionery is wholesome and harmless, that is so far as the highly colored varieties go. Bulletin No. 112, Inland Revenue Department, Ottawa, deals with

the results of examining 111 samples of highly colored confectionery collected in different sections of Canada. The examinations were undertaken to ascertain if they contained any mineral impurities such as lead and arsenic. In only one sample was the presence of arsenic demonstrated, but in such inappreciable quantities, that it would act more as a tonic than as a poison. Thus does Canadian confectionery receive endorsation from the analytical chemists in the employ of the Federal Government.

The great British Medical Association meeting in Toronto is over. It was one of the largest meetings of its character ever held in America and surpassed anything ever before held in Canada. No doubt it will be far-reaching in its influence. Many men came to it who had never before attended a medical meeting of either a national or provincial character. To them it must have proved a revelation to see so many medical men gathered together into one conference. In this respect it will exert a stimulating influence in the direction of both the Canadian and Ontario Medical Associations, as well as other provincial associations. Many men will see the advantages to be derived from friendly conference every year, and the result will be that the national organization, the Canadian Medical Association, will be better attended and supported. On the evening of the first day it was stated that already 800 Canadians had registered. If eight hundred Canadians can turn out to the British Medical Association in this country, they can surely do the same for our own national organization. The meeting also will exert an influence in the direction of reorganization of the Canadian Medical Association with its provincial, county and city branches. Let the influence proceed in the right direction. Let us properly organize ourselves before seeking to organize additional branches of the British Medical Association in Canada.

News Items.

THE death rate in Montreal during 1904 was 20.6 per 1,000 of the population.

FOR nineteen years the average birth-rate in Montreal has been 37.92 per 1,000.

KINGSTON GENERAL HOSPITAL is again talking of having a medical man for superintendent.

DR. A. K. MCLEAN, of Chicago, a graduate of Toronto University, died recently in Battleford.

DR. R. B. HARRIS, late of Toronto, has purchased the practice of Dr. J. McCulloch, Blackstock, Ont.

DR. LEO KILLORAN, of Seaforth, has been appointed official anesthetist of St. Michael's Hospital, Toronto.

DR. CHAS. F. MARTIN, Montreal, has been appointed chief medical officer for Canada of the Standard Life Assurance Co., to succeed the late Dr. Craik.

DR. G. H. WADE, of Wooler, was elected High Chief Ranger for the ensuing year at the meeting of the High Court of Eastern Ontario Independent Order of Foresters, held at Brockville.

MCGILL UNIVERSITY, Montreal, will confer the degree of LL.D., *honoris causa*, upon Sir Thomas Barlow, Sir William Broadbent, Sir Victor Horsley and Dr. T. Clifford Allbutt. The degrees will probably be presented at the next convocation *in absentia*.

DR. W. H. LOWRY, JR., who has been for a year and more on the staff of the Midland Eye and Ear Hospital at Birmingham, Eng., is now holidaying in Switzerland, preparatory to taking an appointment in the fall on the staff of the Sick Children's Hospital, Toronto.

DR. D. F. H. SCOTT, son of Principal Wm. Scott of the Toronto Normal School, who has been abroad for the past two years, has been awarded one of the two Royal Society research studentships of £150, at the University of London. Dr. Scott is a graduate of Toronto University and served as a demonstrator in physiology at Varsity before going away.

DR. WM. J. BELL, who is now located in North Bay to engage in his profession, graduated in Toronto in 1902. He was associated six months as clinical assistant to Dr. McPhedran, Toronto, and was for two years surgeon in employ of C.P.R. Empress Line to Japan and China. He took six months' post graduate study at London Hospital, Whitechapel, London, England

Science Notes.

The Influence of Increased Barometric Pressure on the Human Body.

A series of interesting experiments for determining the influence of the varying atmospheric pressures upon the human system have been carried out by two English scientists, Mr. Leonard Hill, F.R.S., and Mr. M. Greenwood, Jr., M.R.C.S., under the auspices of the Royal Society of Great Britain. These experiments are of particular importance owing to recent extensive engineering works which depend largely on caisson working and deep-sea diving. During the past few years numbers of mechanics employed in caisson operations have developed symptoms of paralysis of the muscles after prolonged immersion in the working area at abnormal atmospheric pressure, and to this malady the term " caisson disease " has been applied. It was with the object of ascertaining the cause of this complaint, and also with the purpose of determining the greatest depth at which a diver can work with safety, that Messrs. Hill and Greenwood conducted their investigations.

From the results of previous experiments carried out by Mr. Hill upon animals, he discovered that every 100 cubic centimeters of blood or tissue fluid dissolved at body temperature about 1 cubic centimeter of nitrogen under one atmosphere of air, 2 cubic centimeters under two atmospheres, and so on. When the decomposition period is accelerated, the nitrogen is set free as bubbles in the capillaries and tissue spaces, and by the resultant embolism of some vessel in the body, symptoms varying in nature and intensity are liable to be produced. The usual working shifts of caisson mechanics range from two to four hours, and in this time the body fluids of the men become saturated with nitrogen.

Mr. Hill ascertained that no ill effects were experienced by animals when exposed to pressures up to seven atmospheres, provided a period of 20 minutes was allowed to each atmosphere for decompression. He thereupon resolved to ascertain personally the effects produced upon the human system under varying pressures. The apparatus employed by Hill and Greenwood consisted of a large steel cylinder of 42.2 cubic feet capacity fitted with a mattress, blanket, and pillows, upon which the

subject could recline in a comfortable position. The interior was electrically illumined, and by means of the telephone and electric bell the subject was able to communicate with his companion outside. A two-cylinder motor-driven pump was used for compressing the air, and this was capable of raising the air pressure within the cylinder to six atmospheres in approximately 40 minutes. There were two decompression pipes with taps of fine bore, so that the rate of escape could be very finely adjusted. In order to avoid any accumulation of carbon dioxide gas, a constant ventilation was maintained.

In one of the tests Mr. Greenwood, upon emerging from the chamber, experienced itching in both fore-arms, more especially in the right. At first the pains were light, but after a lapse of about 20 minutes they increased, becoming neuralgic in character. After remaining moderately intense for five minutes, they gradually subsided. Later investigations indicated that the pains were due to the fact that the subject remained practically motionless during the period of decompression.

In the course of the investigations pressures ranging up to 92 pounds were attained. In no instance were any severe after-effects experienced. A pressure of 90 pounds is equivalent to a water depth of 210 feet, which is some 90 feet in excess of the safety limit fixed by the British Admiralty for divers. It is thus evident that an adult may be safely submitted to a total barometic pressure of seven atmospheres. Even a greater depth than 210 feet might be attained, since the limit appears to be fixed by the pressure at which the toxic effects of high-tension oxygen become an immediate danger. These toxic effects have been closely studied by several scientists. When the partial pressure of oxygen reaches two atmospheres, corresponding to ten atmospheres of air, or a depth of 350 feet in water, convulsions may occur in animals within 20 minutes. It is possible that this limit may be extended by diluting the air with nitrogen, but upon this point the investigators do not claim to afford any testimony. However, the results of their practical observations show that the diving depth may be safely increased up to 210 feet.

The observers prepared a careful record of the various sensations they experienced under pressure. The feeling of discomfort in the ears, due to a different air pressure on opposite sides of the tympanum, is well known. Previous to the experiments Mr. Hill had not practised the opening of the Eustachian tubes, and the effect of the test was most disturbing

When, however, the method of opening these tubes had been explained to him, he experienced no further trouble. The power of hearing appeared to be much more acute when the subject was under pressure. The signal of a tap with a spanner upon the outside of the cylinder was heard with painful intensity The change in the voice which is so well known among caisson workers was well marked during these trials. The voice assumed a peculiar nasal and metallic quality, and the individual characteristic tones were lost. At three atmospheres the power to whisper or whistle was almost entirely lost, and this loss of the vibratile movements of the tongue and lips was a result due probably to the damping effects of the dense air. One of the most important results obtained by these experiments is the imperative necessity of moving every muscle and joint in the body during the period of decompression and this for the purpose of keeping the capillary circulation active in every part. In the brain, spinal cord, and abdominal organs, this circulation is kept active by the work of the respiratory pump. In the limbs, muscles, fat of the back and chest, the movement of the blood and lymph back to the heart depends mostly on changes of posture and the expressive action of contracting muscles. In one test Mr. Greenwood was decompressed from 75 pounds in 95 minutes, and during this period he fixed and extended all the limb joints at frequent intervals, with the exception of the knees. A little while after leaving the chamber no pains or stiffness were felt, except in the knees, which had not been exercised. In another test Mr. Hill was decompressed from five atmospheres in 105 minutes, a pause of five minutes being made at each atmosphere. During the decompression the muscles of the limbs and back were regularly moved, and the only part of the body which the subject omitted to move and massage was the front of the chest. In the evening of the day of the experiment painful places were felt in this region, and a peculiar purplish rash appeared. Forty-eight hours after the test this rash was still discernible. The opinion of the investigators on this point is that the rash was attributable to small bubbles embolizing the vessels of the subcutaneous fat, while in the case of Mr. Greenwood the pain experienced was probably caused by small bubbles in the nerve sheaths in the first case, and in the knee joint in the second instance. The imperative necessity for active movement during decompression is thus shown, and caisson workers should be instructed to freely exercise and massage every part of the body while undergoing decompression in the air lock.—*Scientific American.*

Wanted: Brains to Dissect.

It may not be generally known that all over the civilized world there is a strong demand for brains that are a little above the average in quality; not intelligence, or intellect, or genius, but, literally, that part of the human organism which is contained within the skull and is known as the brain.

Scientists who devote themselves to the study of comparative anatomy have for the most part nothing better to dissect than the brains of paupers and lunatics. These, however, leave much to be desired, and it is to the interest of the human family that the brains of cultured and learned people should be placed at the disposal of those patient and laborious men who are engaged in the vastly important work of unraveling the secrets of the working of the mind.

But it must not be supposed that a certain number of such brains are not forthcoming. Comparatively speaking, there are few, but, still, more numerous than most people imagine. In the great majority of cases they are bequeathed by their respective owners. On one occasion Sir William Fowler, the famous authority on comparative anatomy, in addressing an audience of cultured men and women, spoke of the difficulties he and his fellow workers had to contend with in having little else than the brains of people of low intellect to dissect, and went so far as to appeal to the audience to help science in this matter in the only possible way. On the conclusion of his address several members of the audience, including a few ladies, promised to bequeath their brains to him, and, it is said, proved as good as their word. More than one man of great eminence has regarded it as something in the nature of a duty to do this in the interest of science. Prof. Goldwin Smith, for instance, some time ago formally willed his brain to Cornell University.

Some remarkable brains have been sold, not given. An Englishman who calls himself Datas has disposed of his to an American university for $10,000. He is a man of little education, and for many years worked as a coal miner. But he has a marvellous memory, especially for dates, and is now earning a handsome income on the music-hall stage. Any member of the audience may ask him the date of some occurrence, and is answered instantly. It is considered that his brain must show some very unusual development, and there was not a little bidding to secure it after death.

It stands to reason that the brain of a man of intellect offers a much richer field for observation than the brain of a pauper or some other human derelict. The brains of great men vary very much; more, in fact, than do those of nonentities. It is found that men of encyclopedic mind have large and heavy brains—

Gladstone had to wear a very big hat—with an enormous bed of gray matter and numerous convolutions: on the other hand, men whose genius is concentrated upon one line of thought are of small brain and, consequently, have a small head. Newton, Byron, and Cromwell belonged to this class, and each had a small head. Yet many people imagine that this is a sign of small mental capacity. A visitor who was shown the skull of Cromwell was so disappointed at its size, that the caretaker of the relic endeavoured to console him by saying that this was the skull of the great Roundhead when he was a boy. Prof. Symes-Thompson told this anecdote in a recent lecture, and he also mentioned that Newton was so small when born that he could be put inside a quart pot.—CHARLES STIRRUP, in the *Scientific American.*

DO NOT advise extirpation of large glands in any particular region without making sure that they are not the early manifestations of leukemia or Hodgkin's disease.—*Am. Jour. of Surg.*

IN performing posterior gastro-enterostomy see that the opening in the transverse mesocolon is not so narrow that it may constrict the anastomosed segment of small intestine nor yet so large that it may permit of a possible hernia into the lesser sac. By inserting a number of sutures between the mesocolon and the stomach wall about the anastomosis these possibilities may, in large part, be obviated.—*Am. Jour. of Surg.*

THE pain in the lower part of the back that is frequently complained of after operation, can be best relieved by placing a small pillow in the hollow of the spine.—*Am. Jour. of Surg.*

IF, after a period of post-operative catheterization, the patient finds herself unable to pass urine spontaneously, apply hot towels to the vulva.—*Am. Jour. of Surg.*

WOVEN catheters may be sterilized by boiling in saturated ammonium sulphate solution. Catheters and bougies may be kept aseptic if they are wrapped in gauze wet with soap-spirits of the German pharmacopeia.—*Am. Jour. of Surg.*