

Western Canada Medical Journal

A MONTHLY JOURNAL OF MEDICINE
SURGERY AND ALLIED SCIENCES

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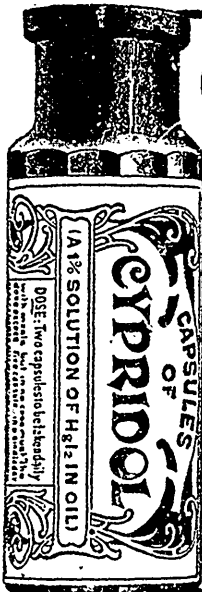


WINNIPEG, CANADA

VOL. II.

APRIL, 1908

NO. 4



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Western Canada Medical Journal

GEORGE OSBORNE HUGHES, M.D.,
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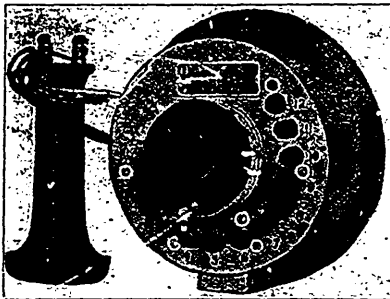
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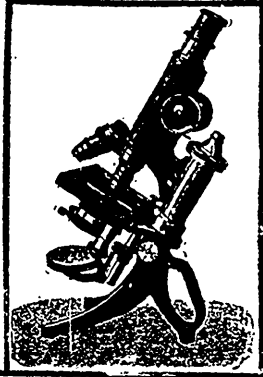
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WESTERN CANADA MEDICAL JOURNAL

VOL. II.

APRIL, 1908.

No. 4

ORIGINAL COMMUNICATIONS.

THE PREVENTION OF DETERIORATION OR "SOCIAL MISFIT"

BY ROBERT JONES, M.D. (Lon.); F.R.C.S. (Eng.)

Medical Superintendent Claybury Asylum, England.

*"Quicquid agunt homines discursus nostri
est farrago libelli!"*

These words of Juvenal, and the searchings of a closing year, are appropriate texts wherewith to justify the varied interests evinced by almost daily references to the heterogeneous methods advocated by all kinds of social influences in the public press and elsewhere for improving the physical and mental condition of the people, or in other words, for averting a national calamity.

The fact that two Royal Commissions are sitting at the present the one to investigate the censured short comings of the Poor Law and the other for the better care of the feeble-minded, demonstrate that the State is alive to the Social welfare.

Of the varied events which act as motive power to national action, two recent great historic operations may well claim to have agitated the public mind and to have given those of us capable of the psychological faculty of introspection ample food for reflection. The events referred are, our

own difficulties over the Transvaal from 1899 to 1902, and the titanic Russo-Japanese war. Probably of the two, there has been no momentum in modern times which has afforded us as a nation so rude an awakening from the self-satisfied drift into which we had glided as the South African War.

The revelations in regard to our Army, made public in the Contemporary Review for January 1903, were unpleasant disclosures. Sir Frederick Maurice on that occasion, and also since, made a strong impeachment of the national health, asserting, among other allegations that 60% of the young men who had volunteered to serve their country were found at the end of two year's service to be "misfits" and incapable of bearing arms on account of defective physique. The statements made at the time in regard to the virility and manhood of the Nation were of so disturbing and disquieting a nature, and the appeal for light and guidance to the great national boards of health was deemed to be of so urgent a character, that in September 1903, the Inter-Departmental Committee on physical deterioration was appointed by the Lord President of the Council. In July 1904, the Committee issued its report, and it is "lest we forget" that I venture to call attention to the embodiment and the result of its recommendations.

It would be a platitude to reiterate the statement that the report should be carefully read by every person in this country holding even the least important of public offices; more especially should it be familiar to the great body of teachers, to whom its direct recommendations make peculiar claim, as the continuous note throughout is for an "educative impulse" which shall bring home the gravity of the issue and the extent to which it is possible through "educative effort" to make effective the findings of the report, backed up as it was by so much expert opinion.

It has been truly said that the State supports education— for everywhere are its hierophants, officials and ministers— and the secular arm punishes resistance to its claims; yet, I am personally convinced from some experience that "education" so called, has been a potent factor in the production of misfits. It is now hoped, however, that we are on the confines of a revolution in this respect, and it is not my present object

to discuss the many perplexities and dogmas of educational principles. I am here concerned only with education in so far as it bears upon the relation between knowledge of the rules of life—which to-day is of little influence in the great majority of homes—and its practical application. The day is past when the rules of health were looked upon as a pious opinion. They are now accepted as common sense principles, laid down to form good and wholesome habits in regard to the cleanliness of the home, the food, and clothing.

It is greatly through the efforts of Sir Victor Horsley that the Board of Education has at last recognized that a wholesome life is a question of good habits—which to be effective must be taught early—and that it is the duty of the school, not only to safeguard the health of the children of school age, but that this is a prime necessity. It is highly satisfactory that a comprehensive syllabus for teaching Hygiene and Temperance has now been organized for all scholars attending the public elementary schools, for the disabling essential to disease and resulting from defective physique begins here. It needs no great interpretive insight to discover that the question of underfed children is a serious blot upon a fundamental instinct deeply implanted in human nature. Children should not be permitted to suffer, for life is a sacred trust, and any home neglect may mean subsequent crippling and disabling and it is a cruelty which should rigidly ensure the prompt punishment of the responsible but capricious parent. I am of opinion that it is not parents and teachers who alone should be concerned with the maxim that a wholesome life means good habits, but the responsibility should be, and ought to be further shared and supervised by a well-disciplined and instructed corps, such as that of medical officers of health and sanatory inspectors, whose positions in their respective districts must be so secure that they could always fearlessly carry out the requirements of the public service and so combat conditions which are now a menace to public welfare. It goes without saying that there can be no more efficient organization for the anthropometric survey of school children—recommended by the Committee referred to and already commenced among the Central Foundation

Scholars—than the men and women engaged in health duties.

It is too well known that the slum environment of filth, squalor and overcrowding produced physical enfeeblement and mental decadence, furnishing epileptics, cripples, feeble-minded persons, low-grade tramps, vagrants and other misfits, thus seriously impairing the resources of the State and the health of the Nation, as these misfits rapidly tend to fill the asylums, workhouses, penitentiaries and prisons. I may be permitted to remark at this juncture that no one who is acquainted with the statistics of crime, with the increase of insanity—in England and Wales for 1 person in 357 in 1880 to 1 in 283 to-day, and in Ireland from 1 in 400 in 1880 to 1 in 164 to-day, and the grievous burden to the ratepayers for their housing—with statistics of the depopulation of the country side of the diminishing birth-rate, and of infantile mortality can imagine for one moment that “all is well within.” Furthermore, the appealing sights to-day of ill-fed processions of men and women—whatever explanation may be offered for their presence—must strike even a casual onlooker with pity, if not with dismay. It is fair to surmise that these individuals are efficient instruments for work, even were employment offered to them; or are they “misfits” and a useless encumbrance? It is no answer to declaim that such a conditions of affairs, more or less modified, is bound to exist under any system of civilization. Palliating a symptom does not remove the cause, and we are bound to seek for and to attempt a remedy for so gross a canker in our social system. Our usual method is philanthropy without enlightenment, which is neither a remedy nor rational treatment, and which indeed only aggravates the disease. An effort must be made in the place where it is most likely to succeed and, despite cries for industrial changes, this place is possibly in the cradle!

In the forefront of the programme for immediate reform, must be placed those factors which are essential to the maintenance of the health and vigor of the people at the highest possible standard. In this regard the supply of clean and pure milk is universally admitted to be one of the chief if not actually the most important of health and even of life-saving

precautions. Milk is the natural food for infants and children, and powers are needed to ensure its purity and to compel inspection from its source to its final distribution. Powers already exist through the Board of Agriculture and Fisheries and the Local Government Board to do much in this direction. It is not necessary to refer here to the successful efforts already made by various municipalities acting upon the recommendation of their sanitary staff: suffice it to say that a beginning only has been affected.

The health mission in regard to tuberculosis—whether conveyed by milk or in other ways—was repeatedly emphasized by Sir William Broadbent, and the culpable spreading of this preventable disease through the practice of expectoration—properly called a species of assassination—has been most prominently brought before the public. Prohibitions and penal clauses have been introduced into the by-laws of public conveyances and in many cases also—where the authority permits—in public places; but the need to bring the danger home to the ignorant and careless cannot be met with by-laws alone. There is need steadfastly and honestly to make the people THINK for themselves—with the manifold activities of to-day, rest and pause are needed for thinking—and to spare no effort from the pulpit, the consulting room, and the forum in making them understand the value of a wholesome life and plenty of fresh air through open windows into clean houses. It is not enough to tell the people these things, they must be persuaded that they are necessary to a good life and such counsel can only be successful when specially urged by local efforts through a central bureau and through the widespread influence of the press—made effective, if necessary, by drastic penalties such as a progressive democracy alone knows how to proclaim and inflict.

The question of infantile mortality is of pressing urgency. It remains a positive disgrace even to a better educated mother, that so much ignorance and carelessness should exist among the poorer class, not only in towns, but also in rural districts. In some areas the clergy have issued printed instructions as to the care and rearing of infants, and these have been distributed by lady visitors and explained by dis-

trict nurses, or they have been issued at mothers' meetings and a bonus to encourage providence and thrift is effected to expectant mothers equal in amount to the preparation they themselves have made for the occasion.

In view of much that is known and written in regard to this aspect, and that of the falling birth-rate, and there has been a decline of fertility (the excess of births over deaths) of 17 per cent. in England and Wales during the past twenty-two years. The example of Mr. Broadbent, Mayor of Huddersfield, who initiated a scheme of payment when information of a birth reached him and another when the infant attained the age of one year, may be mentioned as deserving of wider recognition. Maternity Societies.

There are authorities who refer our social misfits to inter-marriage of this class, but we are in danger of a passive fatalism, and of losing sight of the potent influence of healthy surroundings too exclusively entertaining this aspect. The response of protoplasm to its environment is a maxim as true in the animal as it is in the vegetable kingdom and such encourages the beneficent influence of a healthy environment. We know that Alpine plants have a certain "facies": they are stunted in size but brilliant in bloom. Moist tropical flora, together with the flora of the dry desert have each their "facies." Dicotyledonous plants often have, as do water plants, finely dissected leaves when growing under water. All these characters are acquired through environmental changes, and they are transmitted, because the seeds transmit the characters—the plants all coming true to the seed. It is in the environment that we can modify an inherited vicious organization and possibly more so than by peremptory eugenic cautions.

The hygienic creed thus put forward is that infants must be saved, children helped, youths trained physically to habits of obedience, discipline, to fortify them against temptation and sobriety—for life is not only a Campus Martius, but a condition of striving for moral characters, such as thrift, prudence and self-help—the expectant parent must be instructed to meet responsibilities, and I have an intense conviction from long experience of the social conditions of the

poor that if we have courage to adopt a comprehensive scheme, linked with the practical affairs of life, such as the one now sketched, we shall be doing much towards the prevention of social misfits, such as are the derelicts through insanity, (London alone manufactures 75 insane persons per week) crime, drink and disease. The creed here advocated is that of the National League for Physical Education and Improvement, initiated by Sir Lauder Brunton, recently incorporated under the Presidency of the Bishop of Ripon as Chairman of the Executive Committee, and recently—December 31st last—held its first Council meeting. The League is not advanced for the advocacy of any simple one of the many vaunted remedies, but is an elaborate organization for their amalgamation. Such an effort successfully carried through has made heavy demands upon those responsible for its inception and it must not be overlooked that such an agency is of small use without the vitality to keep it working. Every endeavor should be made by those interested in the wide question of humanity to support it publicly and privately. It is earnestly hoped, with the spirit which has carried it through and the methods of reform advocated by it, that the League may ramify into the remotest parts as an earnest and efficient means for the prevention of deterioration in our modern environment.

*SURGICAL TECHNIQUE

BY G. S. GORDON, M.D.

PHOENIX, B.C.

Patient.

The patient should enter the hospital at least 24 hours before operation and be placed in bed immediately.

Castor oil oz. 2 in beer is given at once followed by a little more beer to mask the taste. (Mayo & Oschner).

In stomach cases, the patient gets a hypo. of Morphine Gr. $\frac{1}{6}$; and in goitre cases a hypodermic of Morphine $\frac{1}{6}$ with Atropine Gr. 1-120. (Mayo).

At 7 A.M. on the day of operation (except in rectum cases which have an enema the night preceeding) an S.S. enema is tried, which, if not effectual, is followed by an alum enema Dr. 31 to the pint (Mayos use this for flatulence).

In acute cases of appendicitis, intestinal obstruction or perforating peritonitis no laxative is given or enema administered except by special direction of the surgeon.

A new tooth brush is provided for each patient with which the teeth are cleansed every 2 hours both before and after operation. (Treves). The mouth wash to be so used is:

Sod. Chlorid.	10 c. c.
Sp. Vin. Rect.	300 c. c.
Glycerini	100 c. c.
Aquae ad	1000 c. c.

Wadsworth in the Journal of Infectious Diseases, Oct. 30, 1906; reviewed in the Therapeutic Gazette, page 98, February, 1907.

On the night preceeding operation a meal of beef tea, soft boiled or poached eggs, with toast or soda crackers is given; except in stomach cases, when an eggnog or milk

*Read before the Boundary Medical Association.

only is given. No food or drink is given on the morning of operation.

Should the patient be accustomed to the habitual use of alcohol, it is not to be interdicted at this time. (Treves.)

On the night preceeding operation a warm cleansing bath is given. Just enough borax is put in the water to soften it. McClintock's biniodide of mercury soap is used for this. Should the patient be strong enough, a bath tub is used, otherwise a thorough sponging does. No further antisepsis is attempted until the morning of operation, except in gynecological cases which have in addition to the bath a warm 1-3000 bichloride douche followed by 70% alcohol swabbed over the vagina on the night preceeding operation. (Mayo's modified).

The bladder is emptied immediately before operation.

The patient is anaesthetised in a quiet room before being brought in for operation.

When placed on the operating table, a 5 yard gauze scarf attached by the middle to the head rest is passed across the shoulders and down to the sides attaching the hands to table at the sides with a slip bow knot. This will prevent the shoulders from sliding off the table (in case the head is lowered) and keep the hands out of the way during operation.

A three yard gauze scarf is wound around the limbs and lower end of the table to hold the knees down in case of struggling.

The anaesthetic, preferably aether by the drop method, is always given on a chloroform cone-covered with 8 ply of gauze.

Disinfection of the field of operation is begun with McClintock's soap and sterile water and cotton swabs torn off as required by the assistant surgeon from a sterile roll held by the assistant nurse (no nail brush is used to abraid the skin.) While thus washing up the patient is shaved with a sharp sterile razor. Following this is Harrington's Soln. $\frac{1}{2}$ min. (2 minutes of this solution will sterilize even dirty hands. Harton: Annals of Surgery, October 1904); then 70% alcohol $\frac{1}{2}$ minute; then sterile water.

Operating Room.

Doors should open to foot pressure; floors be free from cracks; windows be shaded by blinds running from a roller at the bottom of the window, to avoid shaking down dust; water taps should work by foot pressure; There should be no unnecessary fixtures or furniture or shelving to accumulate dust or be in the way. The operating room should be well aired and flushed with sunlight when not in use. No minor septic cases should be operated on therein nor any surgical dressings be done. Except when unavoidable no aseptic case should follow a septic case for operation until the room has been fumigated with formaldehyde gas after it and the furniture have been scrubbed with bichloride (for fumigation purposes the room and furniture should be left moist with bichloride and kept warm as formaline works best thus.) It should be always ready at a moment's notice for emergency work and the responsibility for its care and management rests with the head surgical nurse.

Furniture.

Operating Table with Mayo's instrument tray attached.

Anaesthetist's Table on which are placed Aether, Chloroform, Sterile Chloroform Cone (covered with 8 ply of fresh gauze), 4 gauzes about 6 by 8, 4 towels, mouth gag, tongue forceps, and a hypodermic syringe containing strychnine 1-20 grain.

Table for gauzes, ligatures, dressings, drainage tubes and a basin of normal salt solution for gauzes.

Table for bottles containing Harrington's Solution, 70% alcohol and warm sterile salt solution to be used as a clyster in case of shock or haemorrhage.

No basin stands (if taps work by foot pressure; otherwise one stand for two basins of sterile water to be so placed that both surgeon and assistant have easy access to one basin each).

A Scanlon Morris Sterilizer for dressings, instruments and hot water.

Two Stools, one for the anaesthetist and one for the operator in perineal work.

No Irrigating Appliances (Oschner). In perinaeorrhaphy a douche bag can be hung from the leg holder.

A Reflector (to catch falling dust) is placed above the electric light if it is suspended by a cord. Nearst lights may be best.

One Electric Hand Lamp with reflector.

Gauzes are done up for each operation as follows and placed in the sterilizer in the order named, beginning at the bottom, so they can be removed as wanted in the reverse order and there is no disturbance of the articles not wanted.

1 dozen gauze pads, 4 ply thick, 8 inches square, edges turned in where cut, a tape at the corner of each in a cotton wrapper.

1 gauze scarf, 8 ply thick, 2 yards long, edges turned in where cut, tape at end in a cotton wrapper.

2 dozen swabs, 4 inches square, 8 ply thick, edges turned in where cut, in a cotton wrapper.

1 dozen towels in packages of 3, done up separately in cotton wrappers.

On top of these in the sterilizer comes 1 perforated sheet, rubber sheeting to envelope the patient in, then 3 gowns, 3 hoods, and 3 pairs of sleeves, 4 pairs rubber gloves, each pair done up in gauze; then spreads for the table and instrument-tray.

Sterilizing.

In Phoenix these are sterilized with wet steam for 2 hours and then dried in the same chamber 1 hour (Dickson). The dressings are not removed till the nurse is washed up; except in emergency work, for which a supply of sterilized gauzes etc. is kept on hand properly wrapped up to prevent contamination.

Instruments are all disjointed (Harrington has gotten cultures from between the jaws of closed forceps after attempted thorough sterilizing. *Annals of Surgery*, Oct 1904), and boiled under cover in washing soda and water, 1 teaspoonful to the quart, for 15 minutes at least in Phoenix, ex-

cept cutting instruments which are immersed in pure carbolic and washed off in sterile water and then placed in the instrument tray with the others.

Drainage tubes, glass, rubber and cigarette, silkworm gut and cellordin linen are boiled at least 15 minutes with the instruments that are so treated.

Instruments are thoroughly cleansed with soap and water (with ammonia in it) with a nail brush immediately after operations.

Basins—3 are used if hand basins are necessary, otherwise only one for gauzes; 1 kidney tray for ligatures; Instrument tray or trays; a douche bag with tube nozzle and rectal tube attached for saline clyste; a douche bag with tube attached, if there is perineal work on; are placed in a wash boiler and boiled at least 15 minutes in Phoenix. The wash boiler is brought in unopened and the contents not removed till the head nurse is washed up.

Nail brushes are boiled at least 15 minutes in Phoenix and then stored in bichloride 1-3000.

Washing Up.

The hands and arms are washed in running water and McClintock's soap (biniodide of mercury) during which the nails are thoroughly cleaned with a nail brush; then for 30 seconds they are swabbed over with gauze sopping wet with Harrington's Solution; then 70% alcohol for 30 seconds; then sterile water. If hands or gloves are subsequently de-filed they are washed off in sterile water more or less thoroughly according to the presumed need of disinfection; then H's. soln. etc. thoroughly, as above. If the operator is using bare hands he frequently disinfects them even in sterile cases as the hands do not remain sterile for long after disinfection.

Operation.

Head Nurse.—She first sees that everything is in place; then takes off the covers of the sterilizers; then washes up as above; then removes her gown from the sterilizer (without disturbing other dressings), puts it on and has it fastened behind by the assistant nurse; then she puts on without as-

sistance her sleeves, hood and gown (always being careful not to touch the hair or anything else not sterile). Then she puts the spreads over their tables, the instrument tray in its holder; puts its spread over it; puts the basin or basins in their place; joints the instruments and places them on their tray and the gauzes and ligatures on their table. After washing up she never touches anything that is not sterile, including instruments and gauzes which have been defiled in operating.

The Assistant Surgeon has washed up before the patient is brought into the operating room; but has not put on gown, gloves, hood, or sleeves, and washes up the patient as soon as he is brought in from the anaesthetising room; after this he sterilizes his hands as above, gets into his gown (which is fastened behind by the assistant nurse), puts on his hood, sleeves and gloves, and is ready.

The Operator must be washed up by the time the assistant has finished disinfecting the field of operation; then gets into his gown, etc.; then with the assistance of the head nurse envelops the patient in Mackintosh, sheets and towels and finally arranges his instruments.

The Assistant Nurse does not wash up at all and this serves to remind her that she is to touch nothing that is to be used in an aseptic condition. She ties the patient to the operating table; then folds down the clothes to expose the field of operation widely; then supplies the water and biniodide soap to the assistant surgeon, holds the roll of cotton for washing swabs to be torn from in such a manner that the roll is not infected by her hand; she pours over the field of operation the Harrington's solution, alcohol and sterile water as directed by the assistant surgeon. After this she is always on hand for any work which cannot be done by those who are surgically clean.

Harrington's Solution (Annals of Surgery, October, '04). Commercial Alcohol 194%; 640 c. c. Hydrochloric Acid 60 c. c.; water 300 c. c.; Corros. Sublimate, 8 grammes.

Ligatures.—Chromacised catgut had better be bought sealed of a reliable dealer. Silk worm gut and Celloidin linen are boiled with the instruments. Dry iodine catgut (Annals of Surgery, '05) or iodine spirit catgut (British Medical Jour-

nal, Apl. 6, '07) is preferred, if home made and at all times; but any reliable sealed catgut is used.

After Treatment (Practically Mayo's). .

Shocki qt. slow saline by rectum. On the afternoon of operation hot water in ounce doses ordinarily. In cases of stomach suture, etc., hot water in 24 hours; beer on the second day; beer and buttermilk on the third day; toast and light diet till the 9th day. Vomiting (if protracted or recurrent) stomach lavage and calomel gr. $\frac{1}{4}$ q., $\frac{1}{2}$ h. for 8 or 9 doses or castor oil may be administered through a stomach tube after lavage. In uncomplicated cases castor oil 1 oz. on the 4th day after operation; on the 7th day in drainage cases. Troublesome Flatulence, soap enema, turpentine enema or if necessary alum enema 1 dr. to the pint. To Stave off Pneumonia: The semi-recumbent or upright position in bed is assumed within 24 hours after operation.

*OPHTHALMO TUBERCULIN REACTION

BY F. LaCHANCE, M.D.

WINNIPEG, MAN.

The ophthalmo-reaction to tuberculin, first experimented by Calmette, of Lille, France, seems to be at the present time, a subject attracting considerable attention of the medical profession.

I do not intend to give a compendium of all that has been done so far with the tuberculin test, and what results have been obtained by observers in Europe and America, but I simply wish to give a short report of the two first series of experiments I have undertaken and express what I believe to be rational deductions.

I have used for my experiments, tuberculin which was very kindly sent to me by the director of the "Institut Pasteur" of Paris. It is an aqueous solution one in a hundred, of tuberculin precipitated by alcohol—the said solution being sterilized in moist heat.

I have used tuberculin test only in cases where I felt sure there was no inflammatory trouble of the eye. The tuberculin was in bulbs, hermetically sealed at the ends. To facilitate its application, I have used a sterilized glass hypodermic syringe with blunt ended needle. Holding slightly apart the lids of the patient's eye, a drop of the tuberculin was instilled in the cul de sac of the lower lid. Rubbing of the eye was forbidden to the patient.

When Positive, the reaction took place between ten and twenty-four hours, and, with the exception of one case, the conjunctiva had resumed its normal state after two to four days. Twenty-four hours after instillation we find as a rule the following condition: The hyperaemia at the lower conjunctiva is very well marked, the caruncula is reddened and

*Read Before the Winnipeg Clinical Society.

palpebral slightly swollen with a little fibrinous secretion from parts that come in contact with tuberculins.

My first experiments were made November 13th, 1907, at St. Boniface Hospital.

Case I. Female, aged 23, complaining of Urinary symptoms that led to the diagnosis of Tuberculosis of the Left Kidney, though no *Tb. baccilli* were found in the urine.

Ophthalmic-reaction: Negative.

Operation proved that there was no Tubercular lesion.

Case II. Female, aged 36; suffering from Bronchitis for 12 years. Her condition was one of debility and wasting. Expectoration abundant and purulent. No *Tb. B.* found in the sputum.

Ophthalmic-reaction: Negative.

Under treatment patient rapidly improved.

Case III. Patient aged 42. General appearance good. Appetite and digestion poor. Found marked dullness over the apex of the left lung. Had no expectoration. Mother died of consumption.

Ophthalmic-reaction: Negative.

Feel convinced there is a tubercular lesion of the lung. Why there was no reaction? I am not prepared to answer.

Case IV. Patient aged 20. On two occasions lately expectorated a small quantity of blood. No marked lesion of the lung found on physical examination.

Ophthalmic-reaction: Positive.

Case V. Young Indian girl, aged 18. Parents died of Tuberculosis. She was anaemic, but had no lung symptoms.

Ophthalmic-reaction: Positive.

Case VI. Female, aged 28. One sister died from consumption. Marked lesion at the apex of the right lung.

Ophthalmic-reaction: Positive.

Case VII. Female, aged 32. Very cachectic. Large area of both lungs has definite signs. High temperature at night.

Ophthalmic-reaction: Negative.

Case VIII. Male, aged 46. Chronic cough. On physical examination signs of Bronchitis found. Family history, negative.

Ophthalmic-reaction: Negative.

Case IX. Male, aged 32. Suffering from an uncontrollable cough and great debility. A neurasthenic condition, due to hard intellectual work.

Ophthalmic-reaction: Negative.

Case X. Female, age 39. Anaemic, chronic cough and great weakness. Has chronic Salpingitis on the left side. On operating for the Salpingitis found the stomach lying to within two inches of the pubis.

Ophthalmic-reaction: Negative.

Case XI. Male, age 33. Complained of having enlarged glands in the right side of neck (anterior triangle), they are hard, and not painful, temperature varies between 96.4 and 97.6. Family history negative. He had been examined by many physicians and surgeons, who, on account of the man's age, did not think the diagnosis of tubercular glands to be very clear.

Ophthalmic-reaction: Positive.

Operation delayed and two weeks later an abscess was formed, this I opened. The pus evacuated had the tubercular character. Temperature remained subnormal for a month, when it became normal in the morning and as high as 100.4 at night. The patient is still coughing and expectorating.

Later I had a series of three cases in the Winnipeg General Hospital. In a case with no tubercular symptoms

Ophthalmic-reaction: Negative.

Case II. Case where Tracheotomy had been performed for Tubercular Laryngitis.

Case II. Case where operation had been performed for Tubercular Peritonitis.

Ophthalmic-reaction in both these cases was Positive.

From my experiments I consider that Calmette's reaction is interesting not only from a scientific standpoint, but also from a clinical one.

To be of a real practical usefulness in clinic, the ophthalmic-reaction to tuberculin should be a specific, i. e., that all tubercular patients, with perhaps the cachectics as an exception, should give the reaction, when it should never be found with patients not affected in any way by tuberculosis. Al-

though I have derived from the tuberculin test, after Calmette's method, the greatest satisfaction, I do not claim specificity for it. Yet I sincerely believe that a great deal of attention should be given to it. For as you can see by the report of the different cases that came under my observation, I have been led by it to detect obscure diagnosis that surgical intervention have later proved to be right.

The ophthalmo-reaction deserves great study, for when we know it well, we will find out that it is not far from being a specific.

In experimenting, I would suggest that two points be emphasized. First the condition of the eye. For it is well known that in the inflamed eye, the least traumatism will in the same way to any toxin or any foreign body. aggravate the condition. Second, the eye as the mucous membrane of the child, middle aged man and old man do not react in the same to any toxin or any foreign body.

*SPINAL ANÆSTHESIA BY STOVAINE

Spinal anaesthesia, through the injection of Cocaine in the subarachnoidean space, has been practically abandoned on account of its annoying effects, as, for instance, serious rachialgia and intense cephalalgia and because of the great danger to which the patient was exposed.

However, since the discovery of stovaine, spinal anaesthesia has not had the dreaded effects caused by cocaine, and although Rhachistovainisation should not at the present time be vulgarized, this method, to my mind, under special circumstances, and under the control of experienced hands, is destined to be of immense service to surgery.

It is not my intention to give a full description of the technique of the operation, nor to mention the quantity of stovaine employed or the spot where injection should be made previous to the different surgical interventions. This will be done in a future paper. I simply purpose to cite the

*Read before the Winnipeg Clinical Society.

result of certain cases which came under my personal observation.

My first experiment was made at the St. Boniface Hospital on July 9th, 1907.

As a rule, anaesthesia is complete in from four to eight minutes and last from an hour to an hour and a half.

Case I. Operation: Curetting of the uterus. Patient 43. Rhachistovainisation. Operation performed without the slightest pain. The patient returns from the operating room at about 10 o'clock. At twelve she eats a good dinner. At six o'clock p. m. she has a good lunch with as a result slight indigestion during the night. This patient a few years before had paralysis of the two legs for three months after the birth of her last child.

The spinal anaesthesia did not seem to have any bad effect at all.

Case II. Patient 32 years old. Operation: Anterior Colporrhaphy and Colpoperineorrhaphy. Spinal anaesthesia with stovaine. Operation, including dressing, lasts fifty-five minutes and starts at half past eight a. m. Perfect anaesthesia during all the time of the operation. Immediately after the injection of stovaine the patient vomited, but the pulse was good and respiration normal. The patient had a good breakfast at 7 o'clock. After vomiting she feels perfectly comfortable.

The next day she complains of a tired feeling in the back. She slept well. The third day she complained of a headache that was soon relieved by evacuation of the bowels.

Case III. Patient 44 years old. Operation: Vaginal hysterectomy. In the morning the patient is given a cup of tea and toast.

Spinal anaesthesia and the operation is performed with no pain whatever. Immediately after the operation the pulse was 72.

Case IV. Patient, Male, 35 years old. Operation: Dissecting of a perianal fistula. Spinal anaesthesia with the ordinary good result.

When operating, there was an electric light with a large reflector above my head and when dissecting I cut a small

artery and the blood flew in my face. I heard the patient laughing and laughing. I thought for a moment that the patient was in a state of delirium caused by stovaine. But he told me immediately that he was watching the operation in the reflector and this flying of the blood in my face had simply been a funny feature for the spectator. That shows you the amount of pain he was suffering.

Four days after the operation the patient complained of pain in the posterior cervical region. No rise of temperature. This pain ceased after three days, without any treatment.

Case V. Patient 27 years old. Operation: Resection of a tubercular joint. Spinal injection of stovaine. The anaesthesia is complete in the sound leg, but not quite so well marked in the other. Incision of the skin is painless, but when I came to the external ligament and when I bent the knee the patient felt a great pain. Sawing of the bones was painless. The patient could stand the operation without general anaesthesia, but, however, I considered that in this case I had a bad result, of which later I hope to give you the explanation.

Case VI. Patient, Female, 35 years old. Operation: Haemorrhoids. Rachistovainisation, Anaesthesia is complete. Anus easily dilated and remains dilated during all the operation.

In this case, I had a nurse to take the pulse in different times. The report is as follows: Injection at 11.30 a. m., pulse 70; at 11.35 a. m., pulse 72; at 11.45 a. m., pulse 84, operation begins; at 12 a. m., pulse 84; at 12.45 a. m., pulse 84, and the operation over, the patient was sent back to her room. At 8 p. m. the pulse was still 84.

Case VII. Patient, 42, Male. Operation: Inguinal hernia, radical cure. Spinal anaesthesia with perfect result. No bad past-effects. After the patient was sent back to his room I brought a confrère to see him. His pulse was 64 a minute, but on consulting his chart we found that in the morning his pulse had been 60.

Case VIII. Patient 38 years old, Male. Very nervous. Operation: Amputation of a gangrenous toe. During the operation his pulse was as high as 132 in a minute. The

anaesthesia was good, and the patient very much surprised that the work had been done without pain. The next day, when dressing the patient, I took his pulse, which was 120. So that I think that the Tachycardia noticed during the operation was simply due to excitement. The chart shows that since the patient was in the hospital the number of pulsations has always been above normal.

You have noticed that in the last cases no vomiting and no indigestion had been found. When using spinal anaesthesia the patients do not need to be put on the same diet as for chloroform, but should not be allowed full meals. It is by following that rule I think that the stomach troubles have been eliminated.

Rachialgia has been found in about the $\frac{2}{3}$ of the cases, but it is very slight, lasts a very short time and does not seem to be annoying the patient.

Again allow me to say that Rachistovainisation is not a method likely to be vulgarized, as a mistake in its application might lead to disastrous results. We cannot, however, deny its merits, and we must admit that in many cases it should be a great help to surgeons and surgery.

PERNICIOUS ANÆMIA

BY A. G. MEINDL, M.D.

WINNIPEG, MAN.

On October 22nd, 1907.

J. B., 36, French-Canadian, single, cook in lumber camp. Complains, weakness and difficulty in walking.

Family History: Negative (none of his relatives ever suffered from any form of paralysis).

Personal History: Born in the Province of Quebec. Worked on a farm till fifteen years of age, then he went to the lumber camps of the Upper Ottawa River as a laborer. Four years ago he became cook. He was never ill in bed—denies any venereal trouble, syphilis or rheumatism. Appetite always good, no headache and slept well. Used tobacco excessively and when not in the woods drank heavily and indulged in irregular intercourse.

Present Illness. For some time previous to last June patient (p) did not feel quite himself, then he began to have sharp pains and considerable numbness in the extremities. These have continued ever since.

In July he was losing strength—had some difficulty in walking and was uncertain as to his relation to the ground, he felt as if he were walking on cork. He stopped work in August to come into town for treatment where he made no improvement and gradually became worse. His weight dropped twenty pounds below normal.

Present Condition. Well nourished and well developed man 5.7 in height, 145 pounds, dark complexion, expression anxious. Patient is very irritable, neurotic and possesses little intelligence—pasty pallor of skin, mucous membrane rather pale. He is able to sit up and turn about in bed, but cannot get out very well without aid. Temperature 99, pulse 80, respiration 19. Appetite poor, constipation, abdomen prominent covered with thick layer of fat and is slightly tense, no haemorrhoids, stool constipated and fatty, no signs of para-

sites. Heart not enlarged, first sound loud, no murmurs, no palpitation or dilating veins of the neck. Pulse regular, small volume and low tension, artery not palpable. 40-50 oz. normal urine passed daily.

Nervous and Loco Motor System. Sleep is good. Except for the numbness of hands and feet and occasional spasms of pain in legs and loins, there is no pain. Patient can move head, trunk, arms and legs in all possible directions, but incoordination is present, more marked in the lower extremities. The muscles are soft and flabby, not atrophied and relatively no loss of power. Standing is done awkwardly—the feet are apart, one foot in front of the other—the knees thrown backwards and the body inclined forward. With the eyes shut he totters and falls. In walking he watches his feet and the floor closely—the foot is moved forward quickly, brought up high, and out, and brought down sharply and on the heel (a high toxic gait).

Knee jerk and other deep reflexes greatly increased—no ankle clonus, nor dorsal flexion of the large toe. No objective sensory disturbances and the organs of special sense normal.

The progress of the illness was rapidly downward.

Emaciation became marked, pallor increased and assumed a distinct "lemon tint"—temperature rose from normal to $99\frac{1}{2}$ almost every other day. Pulse increased to 90 and became small.

Blood Examination: It appeared watery and pale.

Red Cells: 1,300,000.

Haemoglobin: 40 to 50%.

Some of the red corpuscles were larger, others smaller than ordinary. The shape of many was irregular, elongated, oval, pyriform and bent.

On November 2nd, patient was altogether unable to get out of bed, and urinary troubles began—retention necessitating catheterization three or four times daily. Urine remained normal until November 24th. Alkaline, 1006 sp. gr., medium quantity albumen, pus cells and casts.

With the onset of bladder symptoms there was loss of rectal power and the muscular sense became impaired.

On December 4th, patient became weak and placid, absolutely refusing nourishment. Temperature going up to $102\frac{3}{5}$. Pulse 120 and extremely small. This condition lasted till December 10th, when he died.

Diagnosis. When the case first presented itself, the only positive symptoms, outside the general condition of the patient were:

1. Pains and numbness of extremities.
2. Increased reflexes.
3. Ataxia.

Apparently a nervous lesion probably due to some toxic condition.

Having a very good knowledge of these lumbermen, I immediately thought of their two most common nervous affections:

1. Alcoholic neuritis.
2. Loco motor ataxia.

These men work hard from daylight to dark about nine or ten months a year and during their holiday consume large quantities of alcohol and live more or less indiscriminately among prostitutes. Again for the past four years this man was a cook—so had little daily rest—overfed irregularly and used alcohol continually. Hence the liability to toxic states of alcohol—syphilis—hard work and to intoxications. Neuritis alone, or as a complication of a possible myelitis (an extremely rare condition) could not hold. There was an absence of paralysis—no atrophy of muscles with degenerating reaction—and practically no sensory disturbances. The rapid course of the disease—increased reflexes and absence of pupillary symptoms excluded tabes.

Nothing was observed pointing to any lesion of the brain, ganglia or nerves, so it was to disease of the spinal cord alone in which the symptoms were to be accounted for. The progress was continuous and downward. Hence due to degenerative process and sclerosis. Here blood counts were made. Pernicious anaemia was self evident and accounted for the toxic element.

The sensory symptoms and ataxia pointing to sclerosis

in post columns and the spastic to the lateral, hence diagnosis of combined sclerosis.

Besides loco motor ataxia, the combined sclerosis had to be differentiated from:

1. Multiple sclerosis.
2. Lues of the cord.

In No. 1 there is optic atrophy, nystagmus, faulty speech and intention tremor.

From lues, absence of local paralysis (Erbs), pupillary symptoms and paralysis of eye muscles. In combined sclerosis progressive course of the disease.

Treatment. Rest, full nourishing diet, massage.

Medicinally, first ten days—Mist—Ferri Aperiens to relieve constipation.

Next ten days, Donovan's Solution in increasing doses.

Rest of week and finally Fowler's Solution.

Local conditions were attended to. After bladder became infected washed with boric acid solution—urotropine internally. For constipation salines and anaemias. Towards the end strychnine hypodermically.

Adrenal extracts as stimulants.

Post Mortem. Besides the gross lesions usually found in the body after pernicious anaemia, evidences of infected cystitis and abscesses of kidneys. The septic condition and anaemia, cause of death. The cord showed evidences of sclerosis of posterior half, especially in lumbar regions.

In combined sclerosis we have a degenerative sclerosis in the lateral and post columns.

At present differences of opinion exist as to the exact nature of the disease. The English observers hold that it is a system disease in which the lesion is limited to the definite tracts e. g. Tabes. The American and Continental claim that the lesion is more diffuse and some even state that it is a chronic diffuse myelitis with secondary ascending and descending degeneration.

However, we must recognize the fact that there is a definite group of symptoms constituting a special disease in that they differ from those found in other known diseases.

Etiology: Heredity has very little influence although

Dana reports 4 or 5 cases in 3 generations. Unlike *Tabes syphilis* is not an important factor, however, it is commonly found in the over-worked and neurotic.

It occurs in the severe debilitating diseases as cancer and especially as in this case as a complication of Pernicious Anaemia. The disease is probably toxic, the poison working on a susceptible nervous system whose neurones have a tendency to degenerate.

Marie from his investigations traces the origin to a vascular cause usually an endarteritis of the spinal vessels in the posterior half of the cord. The blood supply of the cord consists of two sets of arteries. (1) The anterior spinal, enters the anterior fissure and supplies the anterior half. (2) The posterior spinal which gives off a large number of peripheral branches into the lateral and posterior columns. Any disease of these latter arteries or any interference of the blood supply through them, as by pressure, etc., might lead to a degeneration in the posterior and lateral columns of the cord. Thus explaining the sclerotic process chiefly limited to the posterior and lateral columns.

Diagnosis. Obviously in the case report the diagnosis of myelitis was avoided. If we consider the sclerosis as diffuse, we must assume that it is practically a myelitis with secondary degenerations, however, Oppenheim says: "If lancinating pains and ataxia are conspicuous symptoms in a clinical picture, which otherwise points to myelitis, we must think of combined sclerosis."

WESTERN CANADA MEDICAL JOURNAL

GEORGE OSBORNE HUGHES, M.D. *Editor*

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Editorial and Business Offices

8 Commonwealth Block, Winnipeg, Man.

EDITORIAL

At the last meeting of the Winnipeg
A Wester Canada Clinical Society the question of the
Medical Association. formation of a Western Canada Medical
Association was brought forward by the
President.

All agree that the greatest need for the good of the profession is a United Medical Canada—and this proposed Association would in no way affect the Dominion Association, but rather strengthen.—In Canada there are many Medical Societies, mostly provincial. In some cases these answer the need, but in the East there has been a union of several provinces under the name of the Maritime Association, which is the amalgamation of the Medical Societies of the Maritime Provinces. The cause of this was the feeling that the needs of these provinces were not similar to those of Ontario and Quebec. Also the members found it difficult to attend meet-

ings in Ontario and Quebec owing to the distance, etc. This Association was formed and has been successful.

Much the same is now beginning to be felt in the West. While all desire a Head Association, it is found absolutely impossible for most men to attend annual meetings held in the East—the time taken in travelling to and fro is too much for a busy man. Expense as well as distance stands often in the way. Others cannot get locums for the time. Added to this is the feeling that only questions relating to the East receive attention. This, however, is probably because there are not enough western men present to bring western matters forward. More and more, however, the feeling is growing that in medical as in other matters the East cannot understand properly western conditions—they are so different. Only those living in the West can understand what is needed for professional progress. Delegates, of course, are annually nominated to attend the annual meetings, but when one looks over the names of those actually present, very few seem to turn up, consequently the western men contribute little to the discussions and decisions. The conclusion naturally drawn by the outsider from this is that the profession in the West is apathetic. This we who live in the West know is not the case. We know before the annual meeting how many mean to go—and are zealous regarding some matters to be brought up, yet when the time arrives have been prevented by one of the many reasons given. The more one considers the advisability of a Western Medical Association, which could hold an annual meeting at some central point for western men—say Calgary—the more every argument seems in its favor. In the West our interests, even in different provinces, are similar. The questions at present before the different societies and colleges—as hospitals, standard of medical education, licensing, sanatariums, contract practice are practically the same and have the same difficulties. After each local and provincial society has threshed out these questions, one can see the advantage to the West of all meeting and exchanging ideas, experiences and mode of working. This is found beneficial in the various International Congresses. How much more on a smaller

scale first! One supplements the other and solutions to the various problems are quicker found.

We shall hear, of course, from some the usual cry of difficulty of arranging, etc., etc. "What is difficulty? Only a word indicating the degree of strength requisite for accomplishing particular objects; a mere notice of necessity for exertion, a bugbear to children and fools; a stimulus to men." The West can easily get over any difficulty entailed to bring about the formation of such an organization and the holding of an annual meeting at a central point in the West.—The good results that should follow are many, not the least being the making the personal acquaintance of many of our western Brethren. A United Brotherhood in Western Canada would be strong and able to accomplish much for the welfare of the profession and the people. We are all in the initial stage, more or less. Our Health Departments are facing many similar difficulties and also our Colleges. Some questions are just for the profession to decide, but the majority are for the public and the profession. If all in the West unite in deciding their views on various matters for the good of the land—how much easier then to ask the co-operation of the public. Our work knows no nation. All over the world the truly scientific men have most friendly relationships. All we are interested in is the pursuit of knowledge to preserve the health of the people—other considerations should not weigh with us. More and more, there seems to be a feeling that from the Great Lakes to the Coast the West should be one in many respects, and certainly in medical. such a union obtained, rapid progress would follow for the good of all. All the present local and provincial societies would be parts of the Western Association, as the Western would be part of the Dominion. Such a society would keep us out of the provincial rut—while each member could be true to his local society and proud of it, he could further the success of the larger one. At present in the West a nation is being built up. We are all desirous it should have health and character. Youth is the time for building character and forming principles. This is the youth of the West, and now is the time for the medical profession to form its char-

acter and the principles by which it means to be guided. In some parts already there are signs of the necessity of rebuilding. Let us try together to build the rest so that only additions, not alterations, will be needed. Have we not the experience of older countries to help us. Our common object—the health of the nation should unite us in a great Brotherhood. Difficulties? Of course, but is not everything worth doing difficult at first? This certainly is the next necessary matter for western men to decide. The policy of silence in the West is now abandoned. Let us meet and hear what others have to say on matters vital to the good of Western Canada. Together we could be strong. The lack of opportunities of intercourse has prevented much being accomplished in the past. This difficulty is rapidly vanishing. The West is “coming into its own.”

The personal good of such meetings to the busy doctor who cannot get many days from his work cannot be overestimated. The mental stimulus of discussion with fellow-practitioners, the vanishing of many misunderstandings through personal knowledge of our brethren—the pleasure from the social intercourse, the broadening of one's outlook on all matters and many other good results would follow from this gathering together of western men. If the local and provincial societies could manage the pleasant and successful meetings which were held in 1907, how much could the combined enthusiasm and energy of the West do!

NOTICE TO SUBSCRIBERS

The Manager would be greatly obliged if all who have not yet sent in their subscriptions for 1907, would do so. We would also be glad to get the subscriptions for 1908. The prompt payment helps greatly to lessen the work.

Any who have matters of interest, please send them in to the Editor as early in the month as possible.

We only accept advertisements we consider reliable, so may we ask subscribers to patronize our advertisers where possible.

PROCEEDINGS OF THE WINNIPEG
CLINICAL SOCIETY.

March 10th, 1908

The chair was taken by the president, Dr. Milroy. The minutes of the last meeting were adopted as read.

Dr. Lehmann presented a female patient suffering from a dislocation of the left elbow joint which injury she had acquired in a runaway accident four months before.

The forearm was flexed at an angle of about 140 degrees and more or less fixed at this angle. All voluntary motion was abolished, although a slight passive mobility remained.

The articular surface of the lower end of the humerus could be distinctly felt and mapped out in front as could the olecranon and the head of the Radius behind and well up above the epicondylar line. In so far it was a typical dislocation of the lower end of the humerus forward. The diagnosis was verified by sklograph taken by Dr. Bond.

The skiograph also showed that the coracoid process instead of breaking as it often does, ploughed its way through the articular end of the Humerus, leaving the bone intact on either side.

It was pointed out that the force which usually produces this dislocation was one which produced over extension. Often the olecranon gave way first and if the force continued to act, dislocation of the humorous forward might result. In other instances the coranoid process gave way, and in still other the end of the humerous might be broken off or in young people a separation of the apiphysis might result. Dr. Lehmann had not seen a case before in which the coracoid had gouged out a part for itself through the articular surface.

Dr. Hutchinson—"What use has she of the arm?"

Dr. Lehmann—"Very little. No doubt the use will materially improve even if the arm is left alone. Occasionally these dislocated elbows improve considerably but, of course, flexion is an anatomical impossibility in this case. The arm should be useful, however, for ordinary rough work."

Dr. Lachance wished to know if the arm would not be more useful if it were flexed at right angles.

Dr. Lehmann replied very much better if flexed at right angles. In the present position the woman was not able to feed or wash herself. The elbow flexed at right angles would be much more useful than if the arm were straight or between right angles and straight. These elbows could not perform perfect function. Good function sometimes resulted. In the majority of cases there was considerable immobility.

Dr. Kenny—"If it was decided to open the joint, what method would be used?"

Dr. Lehmann—"I just saw the patient this afternoon and I am not prepared to go into an elaborate discussion, but the front incision is, in the general course of events, the most favorable. Sometimes the lateral is used, but I think one could expect to get as good results with the anterior incision.

Dr. D. S. Mackay—"I should think a very much better result would be obtained from resection of the elbow joint than by scooping out of the cavity and trying to get a movable joint."

Dr. Nichols—"From a cursory examination, I should be disposed

to go through the posterior route. I should keep away from the anterior route."

Dr. Milroy—"Is there any reason why the anterior operation is preferable to the posterior or vice versa?"

Dr. Lehmann—"In a general way I think one can get at the particular surface better through the anterior route. The anatomical structures are more difficult to avoid, of course, but I think one gets a better assurance of the position of the joint. It is, however, quite frequently necessary to go in from almost every side to get the joint, in place, because frequently the reduction is connected with considerable difficulty. A point in favor of the posterior route in this case is that there are still fragments of the humerus in the articulation and there might be some difficulty in removing that from the articular surface."

Dr. Rorke—"What would the treatment be in the beginning or soon after the accident?"

Dr. Lehmann—"Well there is only one thing to do, and that is to reduce the dislocation. It is generally by over-extension, traction and flexion."

Dr. Rorke—"Is it difficult to retain the position?"

Dr. Lehmann—"That depends on the condition of the joint. If there is no fracture, retention is comparatively easy. If there is a fracture of the coracoid it is frequently almost impossible."

Dr. Nichols—"I remember reducing one a number of years ago, but I had it within half an hour after the accident. The man had very good function after it."

Dr. Carscallen also recalled a case about five years ago which he got back satisfactorily. He did not believe there was a fracture.

Dr. Watson—"I have a patient, an old lady, who when standing on a table trying to paper the wall, fell and dislocated her elbow backwards. About four months ago I reduced the dislocation within half an hour of the accident and I got the arm so that one could get considerable flexion. I don't think there was a fracture but I may put her under the light treatment. The dislocation has done fairly well."

Dr. Kenny remarked that the X-ray did not always show the number of fractures in a case of the kind under discussion.

Dr. Sharpe then exhibited an X-ray plate showing a fracture of the olecranon. The case occurred in a postman about 23 years of age. He was delivering mail and slipped and fell with a result that the olecranon process was broken off. He continued work. On examination with the X-ray machine, the condition shown on the plate was discovered. The treatment consisted of a posterior elliptical incision and the fragments were wired to their proper place. The result was very satisfactory. The plate showed the head of the triceps tilting the tip of the olecranon outwards. As he simply had to hold letters, he was allowed to return to work about two weeks after the operation. About a week later he received a jolt while getting on a street car with that his elbow came in contact with the end of the car, but although considerable swelling developed, an X-ray examination showed the results to be fairly satisfactory. The end of the olecranon moving around could be seen when the arm was flexed.

Dr. Meindl—"Was it a bone union?"

Dr. Sharpe—"No, a wire union. There was no space between."

Dr. Nichols then presented a male patient who had been operated on for Ludwig's Angina. He said, "When I first saw the patient he had a temperature of 103 with a pulse of about 130. He had been ill one day and had a good deal of infiltration in the submaxillary

region, extending across the submental region. There was no redness but a diffuse, ill-defined hardness. He could not open his mouth on account of the spasm and on looking in between the teeth one could see that the tongue was elevated. He was hoarse and swallowed with difficulty. I sent him to the hospital, and the second day his pulse ran up to 135 or 140, with a temperature of about 103. I made an incision in the middle line and also at the angle of the jaw. At the angle of the jaw there was no pus, and but a few drops of pus in the front part. Some gas escaped, accompanied by a very strong fetor. At the end of some days there was quite a diffuse discharge. I did not have any cultivation of the organisms. In about 12 to 24 hours his temperature came down to within a half degree of normal. A tube was passed from the front incision to the incision at the angle of the jaw, and slight irrigation made. In four days, when irrigating, some fluid came out through the mouth. The infection was due to an infected root of a tooth, but not in any sense a gumboil. A gumboil is quite a different thing and is treated differently. In Ludwig's Angina there is diffuse inflammation. The tendency is for rapid diffusion, either into the chest, or the larynx and esophagus. In case of edema of the larynx, when an operation is required, the death rate is very high. Never delay when the diagnosis has been made. The idea is to open up the area to prevent any retention of bacterial products. Cases taken early do well, but if the incision is not promptly made, the death rate is considerable. Other causes may be due to the infection passing up the ducts of the submaxillary glands, or perhaps the sublingual. A number of cases occur from the roots of the teeth."

Dr. Hunter—"I saw a similar case in 1899 in Hull. The patient had tuberculosis of the lung and an enlarged submaxillary gland. About eight o'clock I was called by the sister. She said there was a swelling which was not there previously. On the right side, in addition to the enlarged gland, could be seen that diffuse, ill-defined swelling in that area and his temperature was increasing. About ten o'clock it was spreading considerably down towards the middle line. We delayed until twelve o'clock. By this time it had spread to the middle line and down the sternum. The condition was then diagnosed by the surgeon and three incisions made. The patient died about two. In a second case the patient recovered on operation."

Dr. Young—"I had a case during my first year in practice. The patient had diphtheria. The reason I considered it Ludwig's Angina was because I has just been reading about it. The whole of the neck below the angle of the jaw showed an amount of brawny swelling, which I did not understand. As I was alone in the bush, I decided I had the whole responsibility, and so made an opening down the carotid sheath, through this thickening which was almost grizzly. I found no pus and decided that I had made a false diagnosis, but after listening to Dr. Nichol's opinion, I must come to the conclusion that I saved the man's life. The man recovered and yet I cannot see that there was any other cause for it than a diffuse infection and diffuse inflammation about the tissues of the neck, which extended quite deeply."

Dr. Brown—"Six weeks ago I was called to a case in St. Charles during an epidemic of mumps. On examination I found the child had two bad teeth with a great deal of swelling. I diagnosed the case as Ludwig's Angina. After making a very free incision I got about a saucer full of pus. There was a rapid recovery."

Dr. Nichol—"The diagnosis is of considerable moment. Take

mumps for instance. Occasionally it will strike the submaxillary as the primary point of infection, but one should be able to differentiate a case of Ludwig's Angina on account of the more diffuseness. The patient was very lethargic. His conjunctiva were yellow and he was stupid; quite different from the symptoms in mumps."

Dr. Hunter said in the case he had mentioned there was a dirty, serous discharge and little of that.

D. Nichols—"When a young practitioner goes to see a case and think it is a case of mumps or an abscess connected with a tooth, and has a death in two or three days, it is rather disconcerting in practice."

Dr. Lachance—"I have seen a case where a man after drinking a glass of cold water felt a sudden pain in front of the lower jaw at the base of the teeth, and about four or five hours afterwards a swelling started. He came to the hospital with a large swelling, filling the part under the chin. The patient was almost choking and could not talk. Three incisions were made and he got better. That was the only case of Ludwig's Angina I saw and I think in that case that really worse symptoms were present than in the cases referred to here."

Dr. Milroy—"It is certainly a very instructive case for the general practitioner. The average practitioner fails to diagnose it unless he has special opportunities for seeing it.

The question was asked as to what would be the chief point of differentiation from the objective and subjective symptoms.

Dr. Nichols replied: "I think the chief point of difference is in the severity of Ludwig's Angina. This man had a temperature of 103 and a pulse rate of 130 to 140. He was poisoned, his conjunctiva were yellow, and he was stupid. On looking at the neck one could not find a fairly localized area of infiltration but diffused as if poison had run through the cellular tissue, which no doubt it did, and would spread laterally rather than limit itself. In the case of an ordinary abscess the tendency is to limit itself. In this particular instance, there was a horrible fetor connected with the discharge when it appeared, as if it came from a gangrenous appendix abscess. There was a little sloughing. There was the elevation of the tongue and floor of the mouth and sublingual gland. There was no redness of the surface. I think the point would hang on the intense poisonous effects and the diffuseness of the lesion more than anything else."

Dr. Bond exhibited an X-ray plate showing a dislocation of the left arm, at the elbow. He remarked that it was of unusual interest inasmuch as the dislocation occurred 25 years before the radiograph was taken, and the real condition of affairs was not found until then. The dislocation was replaced at the time of the accident and a very good arm resulted; practically as good as ever. For the sake of curiosity the man was put under the X-ray and a condition was disclosed which the doctor had seen in several opportunities he had had of raying such cases; one of fracture of the internal tuberosity of the humerus, with dislocation of both bones backwards. Evidently the part of the bone adhered nearly in its place. The plate showed of a slight displacement of the internal tuberosity of the humerus.

Dr. Hunter then exhibited some calcareous pathological specimens, coughed up by a boy about 20 years of age. He and Dr. Lehmann had seen the case, the previous day. The boy had an attack of typhoid in St. Boniface a year ago, followed by a sub-acute condition of the hip; whether following the typhoid as a necrosis or whether it was tubercular, he could not say. No lung symptoms. Patient would cough

from time to time and bring up the matter exhibited. He would feel an irritation of the throat and in coughing brought up calcareous masses of lung stones. He had been troubled with a cough within the last week and had brought up some of the substance. In the meantime, he had developed well marked tubercular infection of the spine. He was running a free temperature and quickish pulse. The spine condition was acute and there was possibly the chance of an abscess developing there. It was difficult just what exactly to infer from such objects in the spit. With the exception of impairment of expansion on one side, the physical examination of the patient revealed nothing else. There were no signs of an advanced lesion. These deposits were usually either phosphate or some salt of calcium, usually associated with tubercular diseases. Cases were known of coughing up these masses for years where there was no tubercular history. They were also sometimes derived from a condition in the tonsils, but there were no signs of anything wrong with the tonsils of the patient under discussion.

Dr. Milroy wished to know whether the masses were broken or whether one side had a convex surface.

Dr. Hunter said the surfaces were quite granular. This was a distinct sign that they had not the whole mass there. He had seen on two occasions a lung stone in a P. M. exam., in a tubercular cavity. That stone was nearly the size of a bean. It had caused no symptoms.

Dr. Lachance—"I had a patient complaining of a pain at the apex of the left lung. On examination found dullness and what seemed congestion of part of the lung. This surprised me when the rest of the lung seemed to be perfect. Temperature 101. He coughed and spat a little blood. I put the patient to bed and he recovered. The symptoms of congestion went away but the pain remained, and two weeks after his discharge, he came to me bringing two stones about the size of a pea. My diagnosis was fairly correct, for probably that stone produced a certain amount of inflammation localized in the lung and so caused congestion. The patient is quite well now."

Dr. Milroy—"Was the sputum examined?"

Dr. Lachance—"No, and I made a mistake not to try the ophthalmic reaction.")

Professor Vincent—"Do they ulcerate through into the bronchus?"

Dr. Hunter—"Samuel West claims that they always came from calcareous glands, and that implies ulceration through. Others state that actual tubercles becoming calcareous may also ulcerate through. Hoffman gives a description of other possibilities in which he mentions thick mucus being retained and actually calcifying in the bronchi. Gall stones arise from catarrhal conditions in the gall bladder. It is not a case of excretion but simply owing to the cells themselves."

Dr. Nichols—"This can be carried further. The the case of the appendix; one frequently gets calcareous matter in the duct and sublingual duct. That theory is quite feasible."

Dr. Watson suggested the occupation of patients might have some influence on the condition.

Dr. Hunter said workers in quarries exposed to dust and gritty particles exhibited quite a different condition—a fibrosis of the lung.

Dr. Bond remarked that when he was in the pathological department of Edinburgh hospital, coal miners used to come in and they found gritty particles scattered all through the lung. There was no general collection in one part but the whole of the lung seemed to be infected with it.

Dr. Hunter then introduced a discussion on Dr. Lehmann's cases of ulnar paralysis presented at a previous meeting.

Dr. Milroy remarked that he thought Dr. Lehmann explained it as an irritative lesion which was conducted to the motary area and reflected down the median nerve. There was a conditions of spasm and total inability to straighten the fingers. After the tissue was removed and the ends of the nerves united the spastic condition disappeared, followed by regeneration of the nerve and return of function.

Professor Vincent responded that the question of rapid regeneration after nerve section was an old bone of contention. Clinicians declared that they got this rapid regeneration but, on the other hand, when experiments were conducted in the physiological laboratory upon animals this condition never occurred. They might be able to conduct experiments rather more carefully in some respects in the physiological laboratory but on the other hand they could not make the tests so adequately on all animals. Clinically, they could not doubt that restoration of function did happen in a few days. A possible explanation was collateral connections, but why that should never happen in animals was a question he was unable to answer. With regard to the other question he was not inclined to suspect that the energy went up to the motive surface of the grain. He did not think it was necessary to assume that. If one granted the irritative lesion then it was sufficient for that lesion to reach the corresponding spinal hemisphere. If there was any weakening of the cerebral inhibition then there was all the more tendency for spinal irritations. If one removed the inhibitory effect of higher centres one could get the irritative effect of lower centres. He thought that the case was one for spinal explanation rather than cerebral, but he did not know that strictly speaking the cerebral was excluded.

Dr. Hunter said Oppenheim suggested that early cases of regeneration were possibly only a matter of descending regeneration; that the nuclei of the Sheath of Schwann below the cut area might take part in regeneration without waiting for any possibly junction from above.

Professor Vincent replied that he had not heard of anything which would tend to support that theory under experimental conditions. It might have been suggested by cases in P. M. exams. Referring to regeneration of the nerves, he said that there was an extraordinary tendency for new nerve fibres to find their way exactly where the old ones were, as if some chemical attraction guided each particular fibre to its right termination. In the end of the vagus was fastened to the cut end of the sympathetic, and sympathetic degenerated and the vagus fibres partook of the various functions of the sympathetic, meaning, of course, that total regeneration was from above.

Dr. Lachance asked if the members who had seen his operation of double hernia performed under spinal anesthesia think it is a method that should be employed.

Dr. Carscallen said after the patient was brought on the table stovaine was injected, and in 2½ minutes the man complained he could not move his feet. After seven minutes the operation was commenced, his pulse was 72. Then, after the operation began in 10 minutes it was 68. I then took it every fifteen minutes and it remained about 68. The man kept talking during the operation and cracking jokes, and said that the only pain he felt was the pressure of the doctor's hands on the abdomen. It was a double hernia. The first operation was seventeen minutes in completion, and then he went over to the left side and did that in fourteen minutes. From the time

the patient was brought to the table until he got off was about three-quarters of an hour. He did not seem to have the least sensation in any of his limbs and respirations were normal throughout. It was my first experience with an operation under spinal anesthesia and I certainly thought it was a great success. The man left the hospital perfectly well about twelve days afterward. He had no bad symptoms whatever and no vomiting, and his pulse were strong and regular throughout the operation.

Dr. Watson suggested that the position of the patient on the table might have some effect upon the operation.

Dr. Lachance rejoined that he just gave him a pillow and took no further trouble.

Dr. Watson referred to Professor Barker's paper in "The Lancet" where he laid great stress on the position according to the specific gravity of the fluid.

Dr. Munroe—"Is such a small disturbance of the pulse rate as that described the rule in cases of spinal anesthesia?"

Dr. Lachance replied that the pulse was usually a little lower, sometimes 65. He had never found any great disturbance.

Professor Vincent—"I have not seen one of these cases. What are the dangers and percentages of death, and if so how do they die?"

Dr. Lachance—"I reported my cases in the paper referred to (they are living yet). Much depends on the material you employ for injection. I use stovaine. Spinal injection is an old thing. Stovaine is new and with that preparation I think the patient is safer. Last week I gave an anesthesia for Dr. Lehmann in the case of an old man being operated on for calculus of the bladder. After the administration of chloroform the patient had pneumonia and is still spitting brick colored sputum. He had to undergo another operation and Dr. Lehmann thought that his patient could not take chloroform, and so I gave spinal anesthesia, with excellent results, so I think it is safe, and in many cases much safer than chloroform. It can be used in cases where chloroform cannot be used. Its administration is much more delicate and takes considerable practice. Sterilization must be very perfect for fear of starting meningitis, but if it is done at the right time and with the right material I think it is perfectly safe."

Professor Vincent—"The percentage of deaths in chloroform used to be down to one in four thousand. Could you give us any idea of the percentage in spinal anesthesia?"

Dr. Lachance—"No, because so much depends on the material used. I just have experience with stovaine."

Dr. Meindl—"The statistics in cocaine, including the thousand cases in San Francisco, place the death rate at one in 229."

Professor Vincent—"That is rather a high percentage. On the whole I would assume that it is the more dangerous proceeding."

Dr. Nichols—"I think Barker, of University College, has had 200 cases with cocaine."

Dr. Lachance—"I think stovaine is not as dangerous as cocaine."

Dr. Hughes—"I would ask Professor Vincent what is the physiological reason for the effect produced by anesthesia."

Professor Vincent—"I presume it is simply a direct paralysis of the action of the nerve cells in the spinal cord."

Dr. Nichols—"I think Professor Barker's experiments rather negatives that idea. He lays the patient on one side and apparently when the patient is on the side you can limit the anesthesia to the lower arm. It would appear then that it would be rather in the nerve roots, would it not?"

Dr. Bond—"Would the extra pressure be sufficient to cause that in spinal control?"

Dr. Nichols—"No. They sometimes take out a corresponding amount of the spinal fluid."

Professor Vincent—"The action may be restricted to the axis cylinder process."

Dr. Lachance—"I don't think that when stovaine is injected it touches the nerve centres because we inject it in the subarachnoid space. It does not touch the medulla itself."

Dr. Hunter—"Where did you inject in these cases?"

Dr. Lachance—"In the fourth lumbar interspace, but the injection instead of being thrown up is thrown down."

Professor Vincent—"Can you use stovaine as you can use cocaine, for a perfectly local area?"

Dr. Lachance—"Yes, with less danger."

March 24th

The chair was taken by the President, Dr. Milroy, and the minutes of the last meeting were read and adopted.

Dr. Hughes presented a case which he said was in relation to one presented by Dr. Young on January 21st. The patient was a girl, eight years of age, with two sisters, both healthy, and her father and mother were also healthy. The whole surroundings in which she lived were good and also her family history. Six weeks ago she suffered from bleeding at the teeth and went to the Winnipeg General Hospital, but stated they had given her no relief. She then went to the Dispensary. At the time she was seen she had bleeding of the teeth and her gums were slightly swollen. There were blood clots around certain of her teeth, but her teeth were firm. There was no sponginess. There was a blood clot in the root of the mouth and the right tonsil was enlarged. The left tonsil was normal. There was nothing unusual about the chest, but the heart had a very strong impulse about the fifth space and there was a systolic murmur over the apex, also heard over the second and third space on the left side.

The abdomen was quite flaccid and there was no tenderness nor any glandular enlargements to be felt. There were a few petechiae on the right arm and left shin and also on the back of the neck. She appeared to be in very good health and did not appear to worry about it. The stools and urine were not examined. There was no swelling around the ankles of any kind. On the following Saturday Dr. Rorke kindly made a blood count, which was as follows: 48,000,000 red blood corpuscles, with 65 per cent, haemoglobin.

Great difficulty was experienced in checking the bleeding. There was no remark as to the haemoblasts or leucocytes. On the following Friday the petechiae were found scattered all over the chest and back and also in the upper region of the arms and well down the buccal mucous membrane. Apparently there was a slight hemorrhage in the lower segment of the left conjunctiva. The diagnosis was Pupura Haemorrhagica. There were no signs of scurvy, rickets or congenital syphilis.

He had ordered the child to go to bed and rest but she had absolutely refused to stay there. He thought the most essential thing in the treatment was rest and a milk diet.

Dr. Milroy wished to know if any change had taken place since the case was first seen.

Dr. Hughes replied, that when first seen the patient had spots on the body but tonight they could only be seen on the arm. There were also numerous ecchymosis in the arms. The gums were not bleeding so profusely as formerly and he did not think that the hemorrhage in the palate was so prominent.

Dr. Rorke agreed with the description of the symptoms given by Dr. Hughes and said the question was one of whether they were dealing with a secondary or primary Purpura. A good many cases of Purpura were associated with infectious diseases, such as scarlet fever, measles, typhoid and tuberculosis. Ten years ago he had seen a patient, a woman of 35, of a family strongly predisposed to tuberculosis and having herself at the time the beginning of pulmonary tuberculosis. She had a lot of small spots on her lower limbs, most of them about the size of a split pea. She was anaemic when in bed they would clear up, but when she got up, they came back, and later on she died of the pulmonary condition. The Purpura seemed to improve at the time under the treatment of iron and arsenic. A certain number of Purpuras were produced by poisons, like mercury, phosphorus and arsenic, which sometimes brought about the conditions leading to these effusions of blood. There seemed to be three primary conditions; Purpura Simplex, Purpura Rheumatica and Purpura Hemorrhagica. He thought the case was one of the latter.

Dr. Galloway mentioned the existence of joint lesions which he said were common in such cases.

Dr. Milroy—"Do you look upon those cases of hemorrhage in the joints as rheumatic in character?"

Dr. Galloway—"I would not like to give an authoritative opinion. I don't think they are though. I have seen cases associated with other symptoms of Purpura where there was no ground for believing them to be rheumatic in character."

Dr. Hughes—I think it is very common to get hemorrhages in rheumatic purpura. The exact thing about the bone lesions as far as I could find in the purpuric haemorrhagica were the blood clots forming beneath the periosteum of the bones. I don't believe that anything has been said about the joints being affected. I think that is one of the distinct points we have in rheumatica, that is not to be found in Purpura Haemorrhagica.

I believe that in Purpura Haemorrhagica the most profuse haemorrhages are often from the buccal mucous membrane and also from the nasal mucous membrane. The stools are generally tarry and hematuria common. On looking over last year's literature I could only find three cases reported and therefore I don't like to make a distinct diagnosis in this case because it is too early to pass an opinion on such a grave disease.

Dr. Egerton Pope recalled a case in which a child was mottled from the neck to the feet with spots the size of pigeon's eggs. He made the diagnosis of Purpura Haemorrhagica. There were no joint lesions or other symptoms, including the mucous membranes. The child was about ten years of age.

Dr. Sharpe—"I had a case of a child who was about twelve years of age and was taken ill with typhoid and Purpura Haemorrhagica developed during the course of the fever. The child died, but I cannot remember the symptoms. I remember Dr. Turnbull telling me that the child had conjunctival haemorrhage and hematuria. The urine was quite heavily loaded with blood and I believe there was a discharge from the bowels. The child died following a profuse haemorrhage."

Dr. Hughes—"I think that was one of those cases of symptomatic purpura due to intense toxæmia. In typhus, cerebro-spinal meningitis, severe cases of typhoid, measles, malaria and even in influenza, you find these toxæmic conditions, giving a purpura which resembles that of *Purpura Haemorrhagica* very often."

Dr. Hunter said there was a sub-division of purpura in which there was a period of intense pain, vomiting accompanied with blood, often tarry stools, hematuria and purpuric eruptions. He remembered a boy of ten being admitted to the hospital at Hull, suffering from intense pain in the abdomen, and an eruption partly hæmorrhagic and partly erythematous. Temperature subnormal but rose within the next day or two. The boy improved but a week later had a fresh onset of the pain in the abdomen, accompanied by vomiting. He recovered shortly afterwards. Dr. Hunter proceeded to say that the abdominal pains might appear alone and might even be operated on by energetic surgeons. He had known several cases in which these abdominal symptoms had appeared and had been operated on, with the result that only the hæmorrhagic condition had been found.

Dr. Kenny said he would like to ask Dr. Hughes to outline the pathology of the condition and asked the relation of the coagulation of the blood.

Dr. Hughes replied that like all purpuras the pathology was very unsatisfactory. The question had been raised as to whether the condition was due to bacteria and bacteria had even been found which on being re-injected into animals had produced *Purpura Haemorrhagica*.

The question of hemophilia was particularly interesting in this case, since it was now thought that females had hemophilia just as frequently as the male sex, though there was a difference in the number of hemoblasts as well as in the clot formation. In regard to the time of formation of the clot, he believed that it took about nine minutes in *Purpura Haemorrhagica* and about fifteen minutes in Hemophilia, but when the clot was formed in Hemophilia it was supposed to retract normally whereas in *Purpura Haemorrhagica* it did not contract. He thought the latter point was one of very great interest at the present time.

Dr. Kenny—"Is it necessary to have a break in the actual vessel in these conditions? Cannot the diseased blood escape through the vessel while it is still intact?"

Dr. Hughes replied that the question of Diapedesis had been brought up but that French authors who had done most work on this disease, had come to the conclusion that there must be a rupture in the blood vessel and that although it was not always found yet the condition existed.

With regard to treatment, he said the patient should be put to bed and preserved from all danger of injury and worry. The diet should consist chiefly of milk. Egg albumen, strawberries, lobsters and shell fish should be avoided. He thought the best medicinal treatment was iron quinine and calcium chloride.

Dr. Lehmann—"I would like to ask Dr. Hughes if there is any particular theory in connection with food?"

Dr. Hughes—"I am unable to answer that question satisfactorily."

Dr. Richardson wished to know how long the treatment should continue and in what doses Dr. Hughes replied that he gave from three to five grains of calcium chloride and about 3 m. of adrenalin until the hæmorrhage ceased.

Dr. Lehmann said he had seen turpentine mentioned as having

been used with success. Dr. Hughes replied that it was just an off treatment.

Dr. Lehmann—"Does not turpentine sometimes produce a haemorrhagic condition of the skin and kidneys? Is such a remedy more active if introduced into the stomach or if injected subcutaneously?"

Dr. Hughes—"It is given both from haemorrhages and produces haemorrhages. It depends on the dose."

A number of radiographs were then passed around for the inspection of the members, illustrating a case of Colles' fracture.

Dr. McDonald exhibited a pair of metal splints which he said slipped very conveniently under the cuff and fitted very well. They differed from the splints with the transverse piece to carry the hand to the ulnar side.

Referring to the treatment of Colles' fracture, Dr. D. S. Mackay said the method had changed considerably during the last nine years. At the present time, the most eminent surgeons in Edinburgh were recommending breaking down of the impaction and merely using a wrist band and not using a splint. The results of thirty cases he had seen treated in this manner were excellent.

Dr. Galloway—"I think the principle enunciated by Dr. Mackay is regarded as the safest practice. As I have observed the trend of professional opinion in regard to this fracture, it appears to me to be in favor of depending chiefly upon an accurate adjustment of the fracture when it occurs, getting the fragments as nearly as possible into the best position. The kind of retentive appliance used, providing the primary step has been well taken, is of less importance. I see occasionally cases of unfortunate results following Colles' fracture, and in some of them the most modern splints and appliances of various kinds had been employed, but very little trouble had been taken to secure a good adjustment of the fracture in the first instance. I think that is the secret of success. A plaster of Paris bandage folded into shape and put layer upon layer, makes a splint which at a certain stage of the setting of the plaster you can mould into absolutely any shape, and make it fit any part of the body.

Dr. McDonald—"With regards to Colles' fracture, I would take the point that the trouble mentioned by Dr. Galloway is unnecessary. I am not advocating any particular splint. I think a bandage of adhesive plaster is sufficient, but if one has the splints at hand, they are handy and not formidable. It is very important not to bind the hand, and you will notice that these do not interfere with the action of the knuckles."

Dr. Galloway—"I think Dr. McDonald misunderstood me; I am not finding fault with splints, but I was simply trying to make the point that if you don't happen to have them at hand, you can be entirely independent of them if you use plaster of Paris to make your splint."

Dr. Lehmann—"I think it is a recognized fact that if the deformity is thoroughly reduced, it is a very simple matter to keep the fracture in place. I agree with Dr. Galloway that if you are going to use a fixation of any kind, plaster of Paris is probably the handiest, and if applied with skill, the safest, but I also must say that I think more accidents occur with plaster of Paris bandages than with any other kind of treatment, on account of the lack of skill with which it is applied. I think many of the teachers very strongly urge not to use plaster of Paris on account of the great amount of skill and practice which is necessary"

Dr. Kenny—"I have been waiting to hear what the after treatment would be; when the bandage would be taken off."

Dr. Lehmann—"I think there can be no great question of the advisability of using early massage. I think the usual method is to remove the dressing every week. Plaster of Paris is very easily removed, and it is very judicious to do so."

Dr. Sharpe—"This was a case of fracture which occurred in July last year. It was set by a surgeon and put up in a block tin splint, and I understand it was taken down from time to time to be examined. The surgeon thought it was progressing favorably until he met the young lady coming into the city to have the deformity corrected. Dr. Blanchard performed the operation, making two incisions; the first incision on the radial side and the displaced fragments were loosened to put into position. Then it was found that there was considerable shortening and that the ulnar side of the hand was very prominent. To correct that deformity an incision was made and a portion of the ulnar was removed. No wiring was done on the ulnar side. He applied packing and used the following splint (exhibiting) a short anterior and a longer posterior. A feature of the splint is that it allows you to get a certain amount of mobility of the fingers and therefore it is not necessary to take down the splint so frequently.

"In the last picture taken you will see that the wire that was used to unite the fracture was broken and last week the free portion of the wire was taken out through the ulnar side of the hand, through the previous incision made. The after treatment consisted of loosening any bandage that prevented the movement of the fingers, and keeping the fingers moving freely five or six times during the course of the treatment. The result, as regards movement, has been very satisfactory."

Dr. Hutchinson remarked no case required more careful treatment than Colles' fracture. It was important that an assistant should be procured and an anesthetic given in order that the repair might be thorough. Sometimes there was considerable swelling and one might manipulate it nicely whereas there was really no repair at all.

Dr. Lachance was of the opinion that a round plaster of Paris bandage covering the whole surface of the arm or the wrist was very difficult to apply and did not always give satisfactory results, but there was another method which might be more properly called a plaster appliance. This was by placing a few layers of bandages, cutting a square and then adding a round roll bandage. This allowed the whole of the back part of the wrist to be seen and the roll bandage could be removed and the bones touched, without interfering with the plaster. In regard to suture of the bones, he noticed that the wire had broken in the case under discussion. He was of the opinion that in such cases catgut would answer the purpose just as well. After 24 hours the wire did not have much effect in keeping the bones together.

Dr. Galloway said he would use a roller plaster bandage. Difficulties frequently arose through an insufficient amount of padding being placed beneath the plaster.

Dr. Lehmann said he very seldom used any padding under plaster of Paris. He admitted that it might not be very safe but he had never experienced any trouble with it. Like Dr. Galloway, he thought that the universal splint and the best splint was plaster of Paris.

Dr. Kenny also said that in two cases of Colles' fracture he had used plaster of Paris with most satisfactory results.

Dr. Hunter stated that the practice in Hull was to stick the fracture upright in plaster, by means of anterior and posterior splints impregnated with plaster of Paris, and then using the ordinary plas-

ter bandages. He had seen fifty or sixty cases with no bad results. In the method of treatment formerly used they had experienced some trouble with shortening.

Dr. Galloway said that was easily avoided and outlined the treatment that should be used.

In closing the discussion, Dr. Munroe said that he had seen such splints as those described by Dr. Lachance used with excellent results. They appeared to combine the advantages of the plaster of Paris splint with additional advantage of being able to take them off quickly and examining the limb.

GENERAL MEDICAL NEWS

VITAL STATISTICS

WINNIPEG

	Cases.	Deaths.
Typhoid	9	1
Scarlet Fever	22	1
Diphtheria	23	—
Measles	13	—
Tuberculosis	4	2
Mumps	25	—
Erysipelas	2	—
Whooping Cough	18	—
Chickenpox	2	—
Smallpox	3	—
	121	4

Regina, March.—Marriages, 7; Births, 18; Deaths, 9.

Vancouver.—Marriages, 80; Births 111; Deaths, 77.

Winnipeg.—Marriages, 106; Births, 316 (173 males); Deaths, 122 (78 males).

Brandon, for January, February, March.—Marriages, 37; Births, 78; Deaths, 55.

Edmonton, March.—Births, 37; Marriages, 19; Deaths, 21.

Strathcona—Berths, 47; Marriages, 22; Deaths, 11.

MEDICAL NEWS

At the monthly meeting of directors of the Brandon Hospital the following staff was appointed for the year:— Drs. J. S. Matheson, L. M. More, J. A. McDiarmid, J. MacDonald, G. C. Beer, G. McKenzie, M. S. Fraser, J. J. Anderson. Dr. Latimer was appointed Specialist.

Drs. Egbert, Gibson and Aikins, of Calgary, are soon to open a private hospital for 25 to 30 patients.

The following were elected on the staff of the Vancouver General Hospital for the next five years: Drs. Brydone-Jack,

Mills, Langis, Poole, W. B. Kechnie, Keith, Proctor, R. E. McKechnie, Monro; Pearson, Tunstall, Weld. Specialists: Drs. G. D. Johnston, I. Glen Campbell, B. D. Gillies.

In the American Medical Association Journal, Feb 2nd, there is a very interesting paper by Bulkley on "The Value of an Absolutely Vegetarian Diet in Psoriasis."

The Medical Inspector of Schools, Vancouver, in her report states that in one school alone she found 180 cases of deficiency in sight, which shows the need of inspection. Regarding the attitude of the parents, she found them most willing to co-operate with her in endeavouring to keep contagious diseases out of school.

The British General Medical Council will in about six months erase from the Register the names of all those who fail to give to the office of General Medical Council from time to time an address at which official communications can reach them. All notices of address should be sent to the Registrars of the Branch at which registration was effected.

In 35 towns of the chief towns of Cape Colony, the death rate amongst the native and colored races is 46 per 1000, amongst Europeans 16 per 1000—shows the effect of education in hygiene.

The Department of Public Health, Chicago, some years ago established a bulletin which tells of the preservation of health in simple language. This goes every week to every doctor, teacher, preacher and newspaper in town, and is supplemented by weekly leaflets of 300 words which are devoted to a special disease or to the health of a trade. These go to the Labour Unions and papers published in foreign tongues—in addition health lectures are given to clubs, churches, unions and settlements.

There is a very good paper on "The Counter Prescribers" in St. Paul's Journal, March.

Notification of cases of tuberculosis has been made compulsory in Edinburgh, Scotland.

At the first meeting of the Senate of the University of Alberta it was decided to start classes in September.

At the Canadian Association for the Prevention of Tuberculosis, which met recently at Ottawa, it was resolved to petition the several Provincial Governments to make their grants to hospitals conditional on their making provision for consumptive patients—i.e., to have a special ward for such.

The new Municipal Hospital for Regina is to be erected this year. It is probable that the present site of the hospital will be retained and the new building erected in such a way as to add to the present premises. The new Municipal Hospital is to be incorporated as the Regina Victoria Hospital. \$100,000 was voted by the City for this purpose.

Although none but B. C. residents are admitted to the Sanatorium, the present quarters cannot admit a third of the applicants.

There is a scheme on foot for the construction of a large hospital at Alert Bay. Alert Bay is a big Indian centre. The International Lumber Company also want a hospital at Campbell River.

Dr. Seymour, Provincial Health Officer for Saskatchewan, is endeavoring to establish a Sanatorium for treatment of tuberculosis in Saskatchewan. Various pamphlets have been issued to the people on the subject, and a series of lectures are to be given at different points in the Province.

Dr. Young, the Provincial Secretary of B. C., has been visiting New Westminster to inspect the asylum and see about arrangements for the new asylum building at the Coquitlam Farm Asylum. The B. C. Government has extensive plans to develop at the Coquitlam Farm which will entail an expenditure of half a million and take about ten years. The sum of \$60,000 has been appropriated for work this year.

Mr. Justice Clement, Vancouver, in granting the appeal in the test case of Rex vs. Garvin, pronounced the provincial regulations null and void on the ground that the penalization of adulteration of food is a matter of criminal law and so within the jurisdiction of the Dominion Parliament.

At the last meeting of the Committee for the Manitoba Sanatorium it was decided that Ninette was not a suitable location.

The "Lancet Clinic" points out that the rice which seems to have given such remarkable physical power of endurance to the Japs, is not 'polished' and so the outer husk and "rice meal" which envelope the kernel—the albuminous portion of the grain—are left.

The people of Brandon are to be asked to sanction a loan of \$35,000 for the hospital. It was also proposed that the representation from the City Council on the Hospital Board be increased to five members in addition to the Mayor.

The new Dentistry Act of B. C. provides for the establishment of a B. C. College of Dental Surgeons. Its Council of five will issue licences. There is also a section which practically forbids the carrying on of dentistry by joint stock companies.

PERSONALS

Dr. Biggar, of Edmonton, has gone on a visit to Toronto.

Dr. Goodwin has returned to Vegreville.

Dr. and Mrs. Brett, of Banff, have gone to Chicago and the East.

Dr. Mason, of Calgary, has gone for a visit to the coast.

Dr. G. M. Foster, late of Greenwood, has just started in practice in Vancouver, after taking a post-graduate course in the East.

Dr. Condell, of Brandon, who has been spending the winter at the coast, has returned and taken up his work again.

Dr. William Mackenzie, of Fairview, is ill with pleurisy.

Dr. Robert Guilmette, of St. Boniface Hospital, has gone to Fleming, Sask., to take up the practice of Dr. Ellis, M.P.P., during the session.

We are glad to report that Dr. McConnell, M.P.P., of Morden, is convalescent.

Dr. J. W. Pennington, M.D., C.M., formerly of Yarmouth, Nova Scotia, has started practice at Moose Jaw. Dr. Pennington intends devoting himself to diseases of the eye, ear, nose and throat.

Dr. F. C. Norman, of Skagway, Alaska, is visiting Vancouver.

Dr. W. W. Amos has returned from Cold Lake where he has been for three months.

Dr. Stewart MacKid has returned from a three months' visit to the hospitals in Chicago and other American cities.

Dr. V. E. Latimer, of Brandon, paid a visit to Winnipeg lately.

Dr. Scott, of Stony Plain, has been appointed physician to G.T.P. camps.

Dr. La Chappelle, of Dawson, has been visiting the coast.

Dr. Boyle, of Vancouver, has returned from a three months' trip to Europe.

Dr. W. B. Donald, of Fort Saskatchewan, has been appointed surgeon to the police and division at Lesser Slave Lake and Peace River Valley. He will also have charge of Indian Reserves.

Dr. Kergin, M.P.P. for the Skeena River District, has returned to his home at Port Simpson.

The staff of the Health Department, Vancouver, presented Assistant Health Officer Meek with a handsome carving set on the occasion of his marriage to Miss Barrett.

Dr. R. J. Howitt, of Victoria, has gone on a visit to California and Mexico.

Dr. G. Brown, of Nanaimo, has been visiting Vancouver.

Dr. Lehmann has been appointed surgeon to the Winnipeg General Hospital.

Dr. Milroy has been appointed consulting physician to the Winnipeg General Hospital.

Dr. Lockburn Scott, of Waskada, Man., has been appointed Dominion Medical Inspector on the border.

Dr. Tolmie, of Winnipeg, has taken Dr. Gahan's practice at Hartney, Man.

BORN

Nyblett—March 19, at Regina—the wife of Dr. Nyblett, of a son.

Swinden—At Norwood, Man., in Feb., the wife of Dr. Swinden, of a son.

Davie—Downey. At Los Angeles, March 28, Dr. J. H. Davie of Victoria was married to Miss M. Downey of Victoria.

OBITUARY

McLeod—We regret greatly to report the death of Dr. C. McLeod, of Winnipeg, on March 21st, at Rochester, Minnesota.

Gahan—Also the death of Dr. Gahan, of Hartney, at the end of February.

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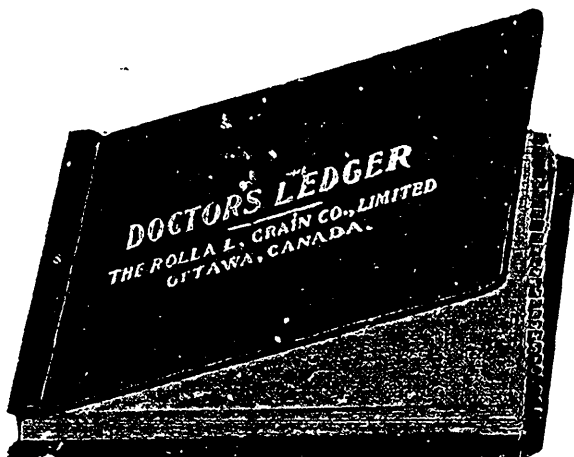
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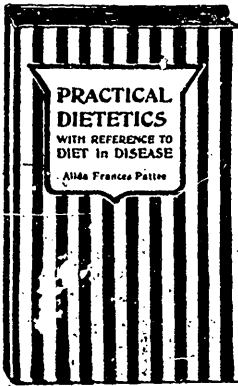
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Synopsis of Canadian North-West Homestead Regulations

Any even numbered section of Dominion lands in Manitoba, Saskatchewan and Alberta, excepting 8 and 26, not reserved, may be homesteaded by any person who is the sole head of a family, or any male over 18 years of age, to the extent of one-quarter section of 160 acres more or less.

Application for entry must be made in person by the applicant at a Dominion Lands Agency or Sub-Agency for the district in which the land is situate. Entry by proxy, may, however, be made at an Agency on certain conditions by the father, mother, son, daughter, brother or sister of an intending homesteader.

The homesteader is required to perform the homestead duties under one of the following plans:

(1) At least six months' residence upon and cultivation of the land in each year for three years.

(2) A homesteader may, if he so desires, perform the required residence duties by living on farming land owned solely by him, not less than eighty (80) acres in extent, in the vicinity of his homestead. Joint ownership in land will not meet this requirement.

(3) If the father (or mother if the father is deceased) of a homesteader has permanent residence on farming land owned solely by him, not less than eighty (80) acres in extent, in the vicinity of the homestead, or upon a homestead entered for him in the vicinity, such homesteader may perform his own residence duties by living with the father (or mother).

(4) The term "vicinity" in the two preceding paragraphs is defined as meaning not more than nine miles in a direct line, exclusive of the width of road allowances crossed in the measurement.

(5) A homesteader intending to perform his residence duties in accordance with the above while living with parents or on farming land owned by himself must notify the Agent for the district of such intention.

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