THE VANCOUVER MEDICAL ASSOCIATION

BULLETIN

Published monthly at Vancouver, B. C.

Medical Evidence

Summer School Programme

Otitis Media

Medical Meetings

JUNE, 1925

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THE VANCOUVER MEDICAL ASSOCIATION

BULLETIN

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VOL. I. JUNE 1st, 1925 No. 9

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VANCOUVER MEDICAL ASSOCIATION.

Founded 1898. Incorporated 1906.

28th Annual Session

GENERAL MEETINGS will be held on the first Tuesday of the month at 8 p.m.

CLINICAL MEETINGS will be held on the third Tuesday of the month at 8 p.m.

Place of meeting will appear on Agenda.

GENERAL MEETINGS will conform to the following order:

8 p.m.—Business as per Agenda.

9 p.m.—Paper of Evening.

The regular work of this Session will commence on Tuesday, Oct. 6, 1925. Programmes to be announced later.

* * * *

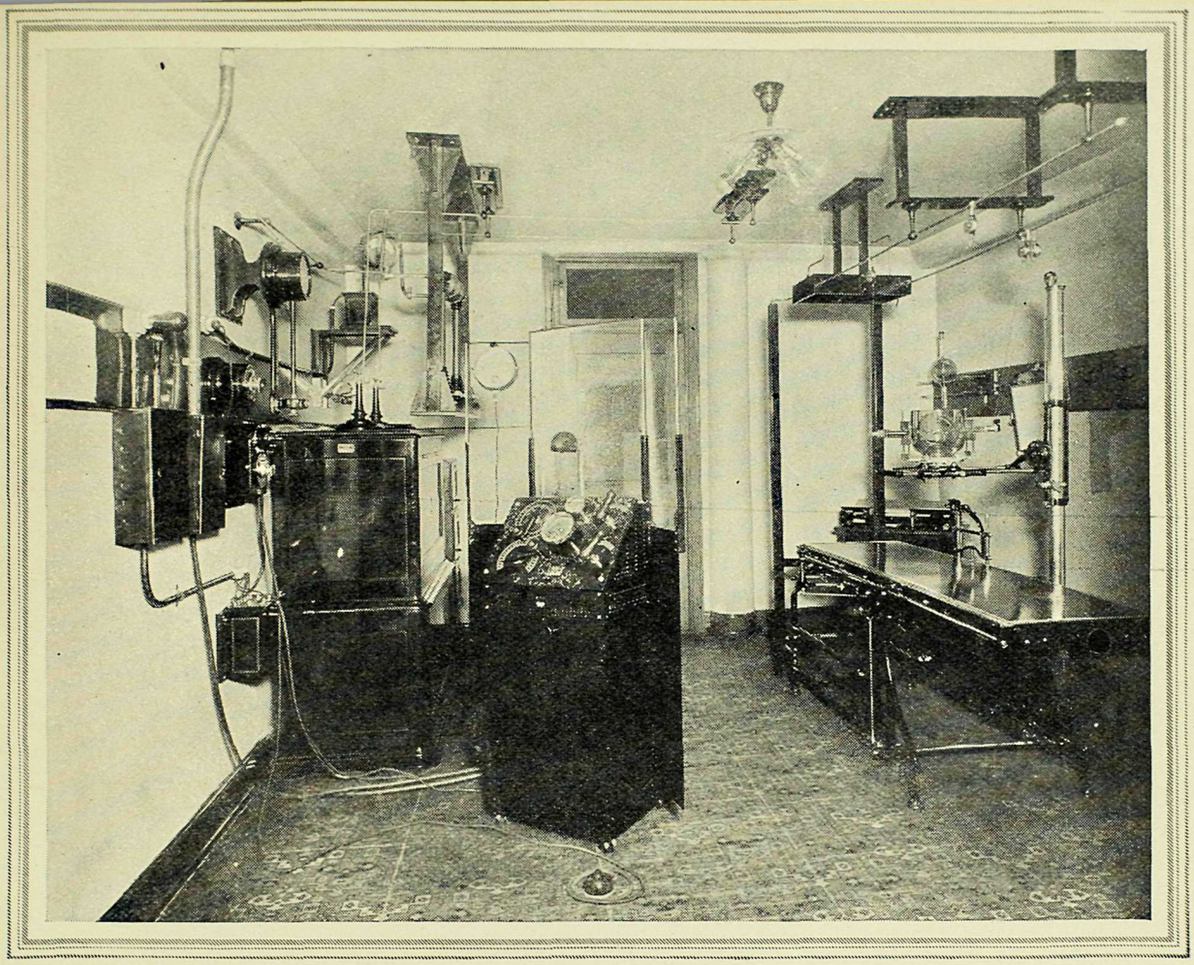
HEALTH DEPARTMENT STATISTICS.

APRIL, 1925.

Total population—estimated		126,747
Asiatic population—estimated		9,960
		Rate per 1000 of Pop. per annum
Total Deaths	122	11.7
Asiatic Deaths	9	11.0
Deaths—residents only	91	8.7
Total Births—Male, 159 Female, 162	321	30.8
Stillbirths—not included in above	11	
Infantile Mortality—		
Deaths under 1 year of age	7	
Death rate per 1000 births	21.8	

Cases of Contagious Diseases Reported.

	March.		April.		May to 15th
	Cases.	Deaths.	Cases.	Deaths.	Cases.
Smallpox	92	0	30	0	5
Scarlet Fever	66	0	29	0	31
Diphtheria	11	1	15	0	3
Chicken-pox	83	0	77	0	33
Measles	2	0	1	0	0
Mumps	47	0	15	0	11
Erysipelas	2	0	0	0	1
Tuberculosis	14	10	7	9	28
Whooping Cough	8	0	4	0	15
Typhoid Fever			3	0	0
Ep. Cerebro-Spinal Meningitis			1	1	0
(Cases from outside City—included in above.)					
Diphtheria	1	1	1	0	1
Smallpox	4	0	0	0	1
Scarlet Fever	6	0	3	0	3



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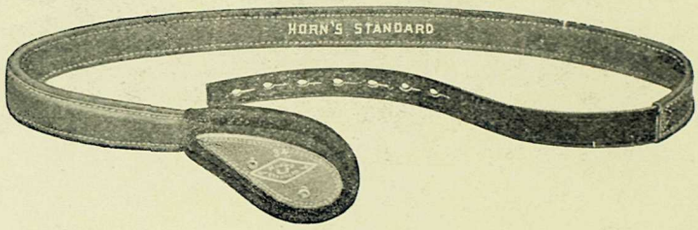

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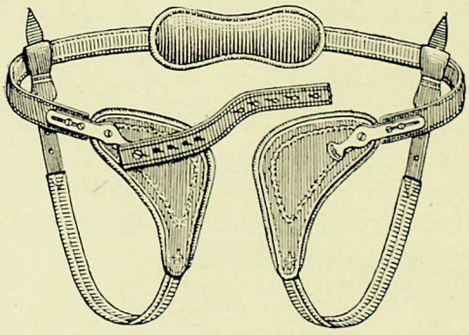

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EDITOR'S PAGE.

By the time this issue of THE BULLETIN reaches our readers the graduation exercises of the Training Schools for Nurses at the General Hospital and at St. Paul's Hospital, Vancouver, will be completed.

In addition a number taking the courses in Nursing at the University of British Columbia received the degree of Bachelor of Science in Nursing at the hands of the Chancellor.

At the General Hospital the largest class in the history of that institution has finished its training. All of which moves us to a few reflections on Nurses and Nursing. As fellow labourers in the same vineyard we wish these most recent alumnae well. In the chronicle of the discoveries in medical science during the last 50 years, the discovery and development of the modern trained nurse takes a highly important place. As an efficient "activator" of the resources and methods of medicine the nurse contributes in no small degree to their success. We feel sure that these latest representatives of their profession have justly earned their titles. Apart from the hazardous nature of the occupation which yearly takes its toll of the less fit or less fortunate, the training is arduous and calls for mental, moral and physical qualities of no mean order.

On its theoretical side it may not inaptly be compared to the training required for a medical student of not a great many years ago. Always the laudable desire has been to stimulate intelligent interest in the practical side of nursing by extending the scope of the theory (shall we call it?) acquired from books and lectures.

Increasingly a more highly finished and therefore more expensive article is produced, and a question may be pertinently asked as to what end such a road will lead. We can agree at once with the validity of the lately established University course. For those nurses who have in view teaching or administrative careers or occupation in the public services, no training can be too thorough or too extensive. When we come to that part of the work which will always interest and occupy the great majority—bedside nursing—the answer is not so simple. Obviously the longer and more expensive the course, the higher should be the tendency of the remuneration, though we doubt whether the analogy holds good in the case of the medical profession, which during thirty years has raised its requirements from four years to seven years. No one can justly deny that the trained nurse of to-day is entitled to all and more than all she at present demands. At the same time it is important that no considerable portion of our people should be denied nursing service because they are not able to pay the current price.

The solution may be for nurses as for many it appears to be for doctors in some form of state aid in case of illness.

Apart from this we have to consider the effect of theoretical training upon the development of the nurse herself. We confess ourselves to be in a quandary. Under present circumstances it is probable that much of this part of the course goes over the heads of the pupils and constitutes a mere memory exercise for the purpose of satisfying examinations.

But how much of all our "education" is of the same nature. Even if one grants that abolition of all theoretical training would not make any nurse one whit less efficient at the bedside, that does not solve the question. For our hope of civilization, our idea of progress in the human race is based largely on the spread and increase of that development of the mind which we term education. To deny this to the rank and file of a calling which requires intelligence, alertness as well as all the virtues of the Decalogue, seems futile.

Perhaps, as our space is limited, our best advice to those in charge of training schools and thinking much on this subject, is to go slowly. The modern wider outlook of women and a praiseworthy enthusiasm has possibly tended to overstress what may be regarded at present as perhaps ornamental rather than fundamental.

A pleasant little note about THE BULLETIN appears in the editorial comment of the April number of the *Journal of the Canadian Medical Association*.

To tyros like ourselves such a word from those who know is immensely encouraging. Thank you, Mr. Editor.

We have much pleasure in calling attention to the excellent programme arranged by the Summer School Committee, which our readers will find in detail on another page of this issue. We may confidently assert that never in the history of the Summer School has such an array of talent been gathered together. We are quite sure that none of our readers in or out of town can afford to miss this meeting. Co-operative arrangements of this sort, whereby speakers of eminence are brought to a central point in the province, are worthy of every encouragement, and we trust that the medical practitioners of B. C. will rise to the occasion and give the Summer School Committee the support it so well deserves. Applications for registration can be addressed at any time to Dr. G. F. Strong, the earlier the better. We would also call the attention of those intending to come from out of town to the advisability of making hotel reservations a reasonable time before the meeting begins.

SUMMER SCHOOL CLINICS

of the

VANCOUVER MEDICAL ASSOCIATION

JULY 2nd - 3rd - 4th

All meetings will be held in the Lecture Room of Wesley Methodist Church, on Georgia Street, two blocks west of the Hotel Vancouver.

Speakers

SIR HENRY M. W. GRAY, Surgeon in Chief, Royal Victoria Hospital, Montreal.
DR. HUGH CABOT, Professor of Surgery, University of Michigan, Ann Arbor, Michigan.
DR. JAMES G. CARR, Associate Professor of Medicine, Northwestern University, Chicago, Ill.
DR. ALAN BROWN, Professor of Paediatrics, University of Toronto.
DR. ROSCOE GRAHAM, Department of Surgery, University of Toronto.

Programme

THURSDAY, JULY 2nd.

9.00 a.m.—Dr. Hugh Cabot: Non-tuberculous Infections of the Kidney.
10.00 a.m.—Dr. Alan Brown: Nutritional Disturbances in Infancy.
11.00 a.m.—Dr. James G. Carr: Auricular Fibrillation.
3.30 p.m.—Dr. Roscoe Graham: Surgery of the Thyroid.
4.30 p.m.—Dr. Hugh Cabot: Nature and Prevention of So-called Catheter Cystitis.
8.00 p.m.—Sir Henry Gray: Developmental Abnormalities Affecting the Colon; Their Far-reaching Effects; Suggested Treatment.
9.00 p.m.—Dr. Alan Brown: Deficiency Diseases.

FRIDAY, JULY 3rd.

9.00 a.m.—Sir Henry Gray: Carcinoma Mammae.
10.00 a.m.—Dr. Alan Brown: Eczema.
11.00 a.m.—Dr. Jas. G. Carr: Intrathoracic Complications of Pneumonia; Diagnosis and Principles of Treatment.
2.30 p.m.—Sir Henry Gray: Acute Osteomyelitis.
3.30 p.m.—Dr. Alan Brown: Intestinal Indigestion in Older Children.
4.30 p.m.—ANNUAL MEETING of the B. C. MEDICAL ASSOCIATION.
6.30 p.m.—DINNER (Informal), B. C. MEDICAL ASSOCIATION, at the Hotel Vancouver. Speaker: Sir Henry Gray.
8.30 p.m.—Dr. Jas. G. Carr: Treatment of the Anaemias.
9.30 p.m.—Dr. Hugh Cabot: Ulcer of the Stomach and Duodenum.

SATURDAY, JULY 4th.

9.00 a.m.—Dr. Jas. G. Carr: Coronary Sclerosis.
10.00 a.m.—Dr. Hugh Cabot: Diseases of the Gall Bladder.
11.00 a.m.—Sir Henry Gray: Acute Intestinal Obstruction.

The Registration Fee for the Course is *Ten Dollars*, payable in advance.

Secretary: DR. G. F. STRONG,
736 Granville Street, Vancouver, B. C.

NEWS AND NOTES.

Dr. J. C. Farish and Dr. J. A. Smith left recently on the *Empress of France* for a trip as far as New York, via the Panama Canal.

The Annual Convention of the British Columbia Graduate Nurses' Association was held in the Royal Columbia Hospital, New Westminster, April 13th, and the Vancouver General Hospital April 14th. Besides the usual committee reports, an interesting paper was read on "The Present Status of Psychotherapy" by Dr. S. C. McEwen, and a demonstration of the administration of insulin by Misses Smith and King during the first day.

On the next day Dr. W. D. Keith gave a paper on "Goitre." Mrs. H. H. McIntosh read a paper, "On the Private Duty Nurse's Contribution to Public Health." Dr. G. A. Lamont gave an address on "Child Welfare." A health play was given by the children of Strathcona public school.

In the evening a very enjoyable banquet was held at the Ambassador Cafe, at which about 125 were present.

In a recent communication the District Superintendent of the Victorian Order of Nurses has called our attention to the fact that their central office for Greater Vancouver is now located in the Lee Building at Main and Broadway, and their new telephone number is Fairmont 1040. She states further that the V. O. N. maternity nurses are now provided by the Provincial Board of Health with capsules of silver nitrate solution for prophylactic use when requested by the attending physician.

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B. C. MEDICAL ASSOCIATION NEWS ITEMS.

Readers will find a full account of Mr. Justice Murphy's able address, given on April 29th, to the B. C. Medical Association. This will be found very well worth reading and keeping for purposes of reference. The speaker covered many important points with admirable conciseness and lucidity, and we are very grateful to him for the trouble and care that he obviously took in the preparation of this address. There is no subject on which the average medical man needs advice and help more than on the matter of giving evidence in court.

We would call our readers' attention to the fact that the Annual Meeting of the B. C. Medical Association will be held on Friday, July 3rd. The Vancouver Summer School is holding its meetings at this time, and we hope to secure a speaker for a dinner to be given by the B. C. Medical Association on the evening of that date. The business meeting will be held in the afternoon, and the election of officers immediately following the dinner.

A meeting of the full Executive Committee of the B. C. Medical Association was held on April 29th, when a number of matters were dealt with.

The B. C. Medical Association will recommend, at the Annual Meeting, the election of Dr. G. L. Milne, of Victoria, as an honourary member of the Association.

Dr. Wallace Wilson, chairman of the Publicity and Educational Committee, gave an interim report of the work of his committee. The question of vaccination came up, and it was decided that the Association should endeavour to obtain as much material from the chairman of the Provincial Board of Health as possible, for distribution to doctors' offices. It was also suggested that the publication "Hygeia" be brought to the attention of medical men, who should be asked to keep copies in their offices for the benefit of their patients.

The monthly meeting of the Fraser Valley Medical Society was held on Thursday, April 30th. Clinical cases were given by Dr. G. W. Sinclair, Dr. H. L. Collins, Dr. W. A. Robertson, and Dr. G. S. Purvis. There was a good attendance of the local men.

Dr. G. B. Henderson, Creston, is leaving on May 7th for a well earned six weeks' holiday. His practice will be cared for by Dr. J. M. Burnett.

The deepest sympathy of the members of the B. C. Medical Association is extended to Dr. A. J. Stuart, of Mission, in the irreparable loss he has sustained in the death of his wife, who passed away on May 2nd.

Dr. D. J. McDonald, who has been spending the winter months in Vancouver, has returned to his practice at Kincolith, Naas River, B. C.

Dr. D. W. Davis, late of Coleman, Alberta, is now associated with Dr. D. P. Hanington, of Kimberley, B. C. The people of Kimberley are to be congratulated on their new and very up-to-date hospital, opened recently. It will make the work of the doctors there much more pleasant.

* * * *

PACIFIC COAST OTO-OPHTHALMOLOGICAL SOCIETY

The Annual Meeting of the Pacific Coast Oto-Ophthalmological Society will be held in Vancouver June 18, 19 and 20. Headquarters will be at the Hotel Vancouver, and a very interesting and instructive programme has been arranged, with a number of distinguished guests. The Entertainment Committee is arranging to see that there will be no idle moments for the visiting doctors and their wives.

The following are a few of the many interesting papers that will be read at the meeting:—

"Advance in the Treatment of Congenital and Acquired Deformities of the Face and Neck," by Dr. Gordon B. New, of the Mayo Clinic.

"Ophthalmic Aspects of General Medicine," by Dr. Edward Jackson, of Denver, Col.

"Sinus Infection in Children," by Dr. Francis N. Shook.

"Malignant Disease of the Antrum," by Dr. M. J. Keys.

"The Diagnosis and Symptomatology of Allergic Conditions in the Upper Respiratory Tract," by Dr. George Piness.

"Some Applications of Ultra Violet Rays in the Eye, Ear, Nose and Throat Field," by Dr. H. V. McBeth.

"Thrombosis of the Sigmoid Sinus and Blood Stream Infection," by Dr. G. F. Chase.

"Visual Economics," by Dr. Harry Wurdemann.

"Ligation of the External Carotid Artery for the Control of Idiopathic Nasal Haemorrhage," by Dr. Frederick P. Hyde.

* * * *

LIBRARY NOTES.

(The Library is situated in Rooms 529-531, Birks Building, Granville Street, Vancouver. Librarian: Miss Firmin. Hours: 10 to 1, 2 to 6.)

Crime and Insanity, by W. C. Sullivan, M.D., Medical Superintendent, Broadmoor Criminal Lunatic Asylum. E. Arnold & Co., London. 1924. 12s. 6d. net.

This work is based on a course of post-graduate instruction given by the author at Maudsley Hospital, Denmark Hill. Considerable space is given to classification of crime, and some very interesting tables are to be found in that and other chapters.

General paralysis, senile and alcoholic psychoses, mania depressive psychoses, dementia praecox, delusional insanity, epilepsy, transitory nervous disorders, hysteria, mental deficiency and moral imbecility are described in a brief but up to date manner, and many interesting illustrative case histories are quoted at some length.

It is interesting to note that among 631 male patients admitted to Broadmoor during the last 20 years for murder, attempted murder and manslaughter, only six were suffering from G. P. I. This disorder is responsible for many minor offenses, but apparently, because of the type of early degeneration, rarely figures in the more serious crimes. Criminal responsibility, from the legal and medical points of view, is fully discussed.

The McNaughton case and the origin of the McNaughton rules in 1843, which to-day constitute the authoritative procedure of the law in British courts with respect to criminal responsibility of the insane, is gone into with some detail.

This book covers a wide range of subjects in its 250 pages, and forms a handy reference volume and is also presented in form for easy reading.

W. A. D.

* * * *

RECENT ADDITIONS TO THE LIBRARY.

Trans. Amer. Laryng. Rhinol and Otol. Society for 1924.
Medical Clinics N. America. Jan., 1925. Mayo number.
Surgical Clinics N. America. Feb., 1925. New York number.
Trans. of Amer. Proctologic Society for 1924.
Collected Reprints, Vol. 3. Thos. S. Cullen.

Clinical Examinations of Surgical Cases. Renfrew White.
Electrotherapeutics and Diathermy. Betton Massey.
Fertility and Sterility in Human Marriages. Reynolds and McComber.
U. S. Treasury Health Reports for 1924.
Medical Clinics N. America. March, 1925. Boston number.
Clinical Therapeutics. A. Martinet. 2 vols.
Well's Gynaecology, Compend. J. B. Harer.
Life of Sir William Osler. Harvey Cushing.
Orations and Addresses. Sir John Bland Sutton.
Physiological Principles in Treatment. Langdon Brown.
Heart Disease. Heatherley.
Clinical Index of Radium Therapy. A. E. Hayward Pinch.

* * * *

INFLAMMATORY DISEASES OF THE EAR.

DR. R. B. BOUCHER.

PART III—*Of the Middle Ear.*

In connection with this, I propose briefly to take up the symptoms and etiology of acute catarrhal and acute suppurative otitis media, then deal briefly wtih acute infection of the mastoid and give you the differential points between mastoid and furunculosis in tabulated form.

Howell says that acute catarrhal otitis media comprises about 13% of all ear diseases. It is a condition that the general practitioner is frequently called upon to treat.

General Etiology—The causes are numerous and may be considered under three different heads:

(1) Exciting causes or pathogenic micro-organisms.

(2) External influences or those conditions external to the body which act as predisposing causes.

(3) Internal influences, or those conditions within the body which predispose to otitic inflammations.

1. The exact relation of micro-organisms to the inflammation of the middle ear is not yet fully determined. That they are found in healthy ears is probable, as the investigations by Zanfal have shown them to be present in the ears and epi-pharynx of rabbits. We know that the various infectious fevers—as scarlet fever, measles, diphtheria, etc.—are often accompanied by acute catarrhal otitis media, although complications from these sources are very prone to take on the suppurative type. There is no special bacteria which causes this type of inflammation, but there is usually a combination of two or more, such as the Diplococcus pyogenes, the staphylococcus pyogenes albus and aureus, and the bacillus pyocyaneus, are usually next most frequently found.

Friedlander's bacillus is less frequently found in combination with the staphylococcus cereus albus, bacillus pyocyaneus and the

micrococcus tetragenus. These and other organisms may be present in the tympanic cavity without exciting inflammation. It is necessary that the conditions of the secretions and the tissues be favourable for their rapid propagation before they are able to excite an inflammatory process, such as the entrance of a new micro-organism. At any rate the presence of micro-organisms *per se* is not sufficient to cause acute inflammation. They must be of the proper virulency, the soil must be prepared to favour their activity, and the cellular structure must be so modified in their functional activity as to be unable to resist their influence.

Channels of Invasion—In a great many instances micro-organisms gain access to the tympanum through the *Eustachian tube*. They may, however, enter by the *blood vessels*, which carry them to the mucous membrane of the tympanum, where they may be thrown out with the serum. They may also gain access through the *drumhead*, when it is perforated, either from congenital or pathological states. In rare instances they may gain entrance from the *cranial cavity* through the bony walls, or through the internal auditory canal and labyrinth.

External Influences—Badly clothed, badly nourished people, exposed to inclemencies of the weather, are most susceptible. Any condition which has to do with the lowering cell vitality, is a predisposing cause. People living in damp, chilly climates are more affected. The skin becomes chilled more easily—vaso-motor nervous centres are disturbed and many of the functions of nutrition and metabolism are disturbed and modified in such a way as to excite inflammatory processes in the mucous membrane, especially those of the upper air passages.

Males are more subject than females, and young people most susceptible.

Internal Influences—The internal conditions which predispose to catarrhal inflammation of the middle ear and upper respiratory tract, have a more intimate clinical relationship to acute catarrhal otitis media than the external influences. It is well established that middle ear disease is almost invariably preceded by some form of nasal or epipharyngeal disease. Whatever causes the pre-existing infection and inflammation of the nasal mucous membrane or the mucosa of the epipharynx will also directly or indirectly lead to a similar condition within the Eustachian tube and middle ear. The mucosa of the nose, epipharynx, Eustachian tube and middle ear are lined by columnar ciliated epithelium, hence there is no bar to the extension of the inflammatory processes from one to the other. Consequently anything which creates disturbance in the nose may, under favourable conditions, create trouble in the middle ear. Any inflammatory condition, any nasal obstruction, ethmoiditis, any form of sinus trouble, tonsils, adenoids, etc., are all responsible for much trouble.

General Symptoms—The onset is usually signalized by a slight chill, which is quickly followed by a temperature ranging

from 99 to 102. Frequently the fever is so slight that the attention of the patient is not attracted to it. The symptom which quickly develops is pain, which may be characterized as a dull, boring, aching sensation, or it may be excruciating in character. It may be throbbing in character, synchronous with the pulse beat. It is due to swelling of the drum and mucous membrane of the middle ear, whereby the sensitory nerve filaments are put on the stretch, and frequently forcing the drum into the meatus. There is a great amount of intercellular fluid thrown out at this stage of the disease, which, together with the congestion of the vessels, renders the mucous membrane and drumhead much thicker than usual.

In the *first stage*, then, the drum is red and thickened, the handle of the malleus obscured from view or very much injected. Its surface may present the appearance of a piece of raw beef, except that it is more velvety in texture. The drum may or may not bulge into the external meatus, depending upon the amount of secretion within the middle ear. The more secretion in the middle ear, the more bulging of the drum and the more pain. If, however, it is only partially filled, it may remain in its normal position.

Auricular tenderness is sometimes present, especially over the tragus. The mastoid process may or may not be tender on pressure, but pressure over the antrum nearly always elicits tenderness.

Tuning forks show catarrhal change reactions, except in labyrinthine involvment when bone conduction is shortened.

Second Stage—The second stage is characterized by a subsidence of the pain, fever and redness of the drum. The drum, instead of being beefy or purplish in colour, is yellowish or greenish in tint. The change in colour is due to the fact that there is less congestion and the pale, slightly greenish secretion in the middle ear is seen through it. The greenish-yellow colour often gives rise to the idea that there is pus in the middle ear.

Another symptom of considerable importance is the presence of a *dark, wavy line*, extending in a nearly horizontal direction across the drum. This line is due to the peculiar refraction of light at the junction of the viscid secretion and the air in the tympanic cavity. If the middle ear is completely filled there will be no line. The line is often not visible on account of the thickness and congestion of the drum.

This, then, is the beginning of subsidence and frequently from this on the case is one of uninterrupted recovery.

The duration of the acute type varies from one to six weeks. Pain disappears first, then the redness and thickness of the mucosa. Hearing begins to return. Later tinnitus—when present—passes away. This symptom may remain, however, for months. On the other hand, where the symptoms are very slight, and where the drum shows only redness of the handle and slight congestion, with very little thickness and no bulging, in these cases under suitable treatment the symptoms will clear in three or four days.

The acute catarrhal condition may readily progress and pass into the more aggravated form of an acute suppurative otitis media. The *diagnosis* between a well-marked case of acute catarrhal otitis media and the early stage or an acute suppurative condition is neither easy nor simple.

Probably two of the most important points to remember are:

(1) *Pain*—In suppurative otitis media the pain, previous to perforation is very intense and boring in character, whereas in catarrhal otitis it is a dull, boring and aching sensation.

(2) *Temperature*—Temperature in acute suppurative conditions is higher, ranging one to three degrees and more in children. Adults do not show such a high rise. Children frequently run to 103-104. In acute catarrhal otitis media the temperature does not usually exceed one to two degrees.

The appearance of the drum head in both cases is similar before perforation, except that the suppurative type may show a whitened bulging area, where it is getting ready to perforate.

Prognosis—The prognosis in the acute catarrhal type is good if seen early before adhesions have begun. The prognosis, on the other hand, in the suppurative type must be guarded, as in this type nobody knows when untoward symptoms may develop.

Treatment in the Acute Catarrhal Type—The first symptom to relieve is pain, and this may be done in several ways.

A mixture of equal parts of carbolic-glycerin and cocain hydrochlor gives excellent results. A few drops into the meatus —warmed.

My own choice for the relief of pain is: Carbolic and glycerin, 5%, dropped warm into the meatus every three hours and continued until symptoms subside.

Laudanum and oil is frequently used warm, but I must confess I have never seen much result.

Chloroform fumes, blown into the meatus, sometimes gives relief, and some busy people even use tobacco smoke.

Leeches applied to the tragus or posterior to the auricle also relieves the pain, and favours the reaction of inflammation. The result from this is sometimes prompt and should be more frequently employed.

Cold—heat dry or moist—leukodescent light, and so on, have been used. Some of the coal tar derivatives may be used to quiet the patient. Should the pain persist, then a myringotomy should be done.

After the subsidence of the acute condition gentle inflation of the tube and tympanic cavity should be done. This must be done gently and favours drainage and prevents adhesions.

So much, then, for the actual treatment, but let me once again impress upon you that 90 odd per cent. of these cases is due

to nose and throat trouble. Conseqently, then, this point should not be overlooked. In infectious cases a good routine is a mild organic silver salt dropped into the nose two or three times a day. Where the ear condition is established, an astringent spray of some sort, followed by a drop of, say, argyrol, 5% or 10% solution, is useful. After the attack, nose and throat conditions should be checked up and corrected.

Acute Suppurative Otitis Media.

Symptoms—The symptoms are an aggravated type of the catarrhal otitis. The main differential diagnosis I have already told you, namely, pain and temperature.

Before considering the prognosis and treatment of this type, I would like to mention something which may interest you.

In scarlet fever the commonest time for ear complications to occur is the second or third week. In diphtheria during the acute symptoms and in measles during the acute stage—fever still being present.

And while at this point, let me briefly review the *symptoms of an acute otitis in children.*

In children with cachexia there are often *no subjective* symptoms. *Objectively* the drum may be a little reddened, especially about the short process, and along the handle of the malleus. A small amount of slimy secretion may be found in the canal. It may be questioned whether the cachexia is the cause of the ear condition, or the ear condition the cause of the cachexia. It is quite certain, however, that even a mild suppurative process *in infants* is quite sufficient to cause pronounced disturbances of nutrition. Every case of malnutrition, peevishness, twisting of the head, or dropping it to one side, should lead to the careful inspection of the ears. Boring the head, or occiput into the pillow; hanging it to one side (usually the affected ear); placing the hand to the affected ear; going to sleep when lying on the ear to which the head is inclined; refusing to take the breast except on the side which allows the patient to lie with the affected ear against the bosom—all point to acute inflammation of the ear. The infant cannot tell its sufferings, but if the physician carefully observes its actions, they will often speak louder than words.

In older children the symptoms are more pronounced and just prior to rupture the pain is usually intense. There may be signs of labyrinthine and meningeal irritation. Rupture of the ear drum gives immediate relief, and the treatment then resolves itself into one of an acute suppurative otitis. The tendency to frequent relapses is prominent in children, but not nearly so much now as formerly, because the naso-pharynx and throat receive earlier attention now than formerly.

Prognosis—The prognosis of an acute suppurative otitis media is always guarded until better. Uncomplicated cases run in adults about three weeks; in children from one to two weeks.

I say "guarded" on account of the apparent harmlessness of the disease in many cases, whereas in reality it is a grave and destructive one. It is not the disease that is feared, but the *sequelae*.

For convenience let me tabulate Politzer's classification of terminations:—

1. Cure.
2. Catarrhal.
3. Adhesive processes.
4. Permanent deafness.
5. Mastoiditis.
6. Loss of mucous membrane-ossicles and infection of the labyrinth.
7. Chronic suppuration.
8. Death from meningitis, sinus thrombosis, septicaemia or brain abscess.

Treatment—The treatment of an acute suppuration really is free drainage, and asepsis. In the early stage a most valuable thing is Carb.-Glyc. 5%, freely dropped in. It is hygroscopic, antiseptic, reduces the oedema of the mucous membrane and thus establishes a more rapid flow of blood through the tissues. The resistance of the tissues is thus raised. I have used this alone in a number of cases with excellent results, after perforation. Before perforation, with a bulging drum, fever and pain, free incision should be done. This should be curved and in the posterior quadrant. It should also be free and should be done with a good light. An ordinary puncture does not allow sufficient drainage, and is obsolete. *Drainage* is the object, and it should be free. After incision fill the ear with Glyc.-Ac.-Carb. 5%. This may be used throughout or later warm irrigation or drainage by wick. That is either the wet or the dry treatment. If the secretion is thick and tenacious, a warm, alkaline solution is useful. The canal should be mopped out gently at each treatment.

As the mastoid is always more or less involved, an ice bag is useful to mastoid process.

The naso-pharynx should be treated as outlined before, and, if adenoids are present, they should be removed on the subsidence of the attack, or if a mastoid intervenes and operation is indicated they may be done then, provided there is no acute infection in the epipharynx.

Ordinary cases, on subsiding, require gentle inflation of the tube to prevent adhesions.

The mastoid is always more or less congested during all suppurative middle ear inflammations. Establishment of drainage in a large number of cases causes clearance. Some cases progress—and mastoiditis ensues.

MEDICAL EVIDENCE.

An Address Delivered at a Luncheon of the B. C. Medical Association, April 29, 1925, by Mr. Justice Murphy.

Mr. Justice D. Murphy, speaking at a luncheon of the B. C. Medical Association in Vancouver on April 29th, addressed the doctors present on the subject of "Medical Evidence." He told the doctors that, both from the standpoint of good citizenship and also from the standpoint of their own personal advantage, they should inform themselves of how to give evidence effectively, because the public is likely to confuse a man's ability as a doctor with the way in which he gives evidence.

The Doctor a Poor Witness.

Mr. Justice Murphy said: "Doctors should become informed of the best way of giving evidence. One would think," he said, "that doctors would be the best of all witnesses because they are trained in the principles of minute observation, and *observation is the basis of good evidence.* The reason medical men do not make good witnesses is because their standpoint is different from the standpoint of the courts.

"A doctor's business and interest in regard to his patient is, first of all, to try and bring about a cure. If the patient should die then his duty is finished. So far as the law is concerned that is very often the starting point of its interest. Inasmuch as every practitioner, who has any practice at all, is bound to be called into court as a witness sooner or later in the course of his practice, it is essential that in cases of death from accident or violence the doctor should remember that he is liable to be called as a witness, and should take steps accordingly.

Minute Observation Absolutely Essential.

"The first thing to do is to *make minute observations* of all the facts, *no matter how non-essential they may at first sight appear to be.* First, *the time* should be accurately noted, and the *condition of the body* of the dead person. If a wounded person, then a very minute and careful observation of *the wound* should be made." To show the importance of this, Mr. Justice Murphy refrered to a case in which Sir Astley Cooper, a famous member of the medical profession many years ago, was called on one occasion to attend a person who had been stabbed, and the person died. Sir Astley made a very minute observation of the wound and found that it was straight on one side and round on the other. A man was subsequently arrested on whom a knife was found, which knife could have occasioned that wound, and the reason he was arrested was because of the doctor's close observation of the wound. With that clue the murder was brought home to that man.

Results of Lack of Minute Observation.

"To show what may happen when the doctor is not keenly observant, a case is reported where a woman was found dead in bed with numerous lacerated wounds over the skull. When the

authorities arrived (the doctor had seen the woman, but had made no observations) there were some nails driven through the head of the bed, and the son put that fact forward as a defence, arguing that the woman had struck her head against these nails and they had caused her death. In all murder cases the jury is told that the *facts* must be proved *beyond reasonable doubt*. There was reason to believe that the nails had been put there afterwards, but the doctor, not having made minute observations, this fact could not be proved.

Condition of Body.

"The doctor must note the condition of the dead body, and if there be any *weapon* about he must also note its condition. He should also note the *condition of the clothes*, the *position of the body*, and the possible *direction of the wound*.

"To give another instance in which the doctor was instrumental in bringing the murderer to justice. A man was found shot in his private room. He died, and the doctor carefully examined the direction of the shot. He concluded from his observations that the pistol must have been fired by a left-handed man. It is very necessary a doctor should make careful observations *immediately* he is called to the case, because, as you know, people rush in and move things about. This doctor informed the authorities that the shooting had been done by a left-handed man. There happened to be a friend of the dead man in the house, and with that clue the murder was brought home to him.

Importance of Immediate Note-taking.

"So you see the necessity of close observation, and having made your observation *take notes*, and *keep those notes*, and *the sooner you make your notes* the more weight they will have in court. You will not be allowed to read your notes, but you will be allowed to refresh your memory from them. It is for the judge to say whether you will be allowed to read them or not. If you wait days before making your notes, instead of writing them down within an hour, the jury will attach so much the less weight to them. The reason you should take notes is because *no man can depend upon his memory*, and criminal law moves slowly. All law moves slowly, but especially criminal law, as you will some day find.

The Coroner's Court.

"You will be called to various courts, and the first court you will appear in will be the coroner's court. Many people regard the coroner's court as of no importance at all, but remember that *every word you use in the coroner's court will be used afterwards in the assize court*. You should therefore take your notes with you to the coroner's court and give a very careful statement there. You should treat the coroner's court in exactly the same way as you would treat the assize court, because if, later on, you make any change in your statement—if there be any difference in it at all—you may be sure that counsel will seize on every change and make

much of it. And, referring to the close observation of facts, counsel will endeavour to find something you have overlooked, and he may make much of that omission to the jury. So, *whether things look important to you or not, put them down in your notes*, and remember that everything you say in the coroner's court will be available in the assize court later on. And remember to have with you your *original* notes, you will not be allowed to use copies.

Facts, Not Opinions, Wanted.

"Good doctors, as well as many other witnesses, fail to realize what a witness is called for. Witnesses are called to *testify to facts*. You should therefore tell your story in some logical order —chronological order—and confine yourself to facts, and *not make use of words that imply opinions*. For instance, if, when you are giving evidence in a case where the person has died, you refer to him or her as 'the murdered person,' you are giving your opinion on the very point that is being tried. The dead man or woman may *not* have been killed. So your statement should be clear, it should be entirely one of facts, and of *facts that you have observed* yourself, not what other people have told you.

"Doctors are placed on a sort of pedestal, and if a slip of the sort I have just mentioned is made by a doctor, you may be quite sure that counsel will make the most of it before the jury. We should, as citizens, be desirous of seeing justice done, of seeing the perpetrators of a crime punished, and of seeing that innocent people are not unjustly found guilty.

Use Simple Language.

"Use simple language. Doctors are fond of using technical terms, but the average layman knows nothing about technical terms. It may be that when you are speaking you unconsciously use technical terms, but if you should do so, then *immediately translate* them into simple language. Some doctors think they impress people and therefore use all sorts of technical terms, and finally they are told they are ridiculous.

"You remember the case of the young doctor who was called to give evidence in a case of assault, and was asked to describe the injuries, and he said there was 'a severe contused area with extravasation of blood and ecchymosis into the surrounding cellular tissues,' etc., etc., when he should have just said quite simply that the person had a 'black eye.' You should not use technical language, but if you *do* unconsciously drop into it, you should immediately explain what you mean. Do not indulge in exaggerations. Exaggerations are very dangerous things in courts of law. Words are to lawyers what the human body is to doctors, and while sometimes the use of words leads to pettifogging, this *precise use of words is a necessity*, and is the only way we lawyers have of dealing properly with the matter in hand. We deal in words, and therefore we have to pay very close attention to words. Medical men in the course of their practice are not called upon to use any such exact language, and this fact, perhaps, leads to some carelessness in their use of words.

"In a recent case in Victoria this principle was involved, and the point attracted a great deal of attention. The doctor went before the coroner's court. The time of the killing was of very great importance. The doctor stated that the bodies were absolutely cold. Now the ordinary layman would gather from that statement that rigor mortis had set in. When the case came on in the high court the doctor stated that the bodies were cold in death. When the Crown case was put in, the time of the killing was proved beyond all question, and the doctor had used that language to show he had not got there until after death. This was made much of by counsel. It was unfair, because later on the doctor had expressed the opinion that the bodies were dead only an hour, but the changes were rung on this to the detriment of the doctor. I did what I could to see that he did not suffer an injustice, but first impressions are very hard to eradicate and we often have to deal in criminal matters with very ordinary people. So be very careful about first impressions.

"To sum up: The first thing to do is to observe keenly *everything*. It will be expected of you. Then make your notes and avoid technical language and avoid exaggeration. That is all you have to do. It is very easy to talk about, but not so easy to do.

"I do not think I need say anything further about evidence as to facts.

Dying Declarations.

"I would like to say something to you about dying declarations. You may have to take a dying statement. Men in practice in the city can send for a magistrate if they know a person is going to die as the result of violence, but then again they may not have time, and may have to do it themselves. In the interests of justice it is frequently essential that a dying person's account should be obtained, and obtained in such a fashion that it can be produced in court later on. If not obtained in the right way, no matter how thoroughly we may be convinced of the facts, the crime cannot be brought home to the guilty person.

"You remember the doctrine of reasonable doubt. There is only one thing to be remembered about that. You, as medical men, have to decide first of all whether you will tell a person that he or she is going to die. As a matter of justice I think you should, but that is for you to decide. The only thing to remember with regard to a dying declaration is this. The person—he or she—*must know he or she is dying, and have no hope of recovery.* If anything is said to indicate that the injured person has a hope or chance, however slight, of recovery, the dying declaration cannot be received. It is not given under oath, and there is no opportunity to cross-examine. The only reason a dying declaration is received at all is that a person on the threshold of eternity, knowing he or she is going to die, is not likely to tell an untruth. That would be about the only thing you would have to remember in regard to the actual law.

Expert Evidence.

"I have told you all about evidence as to *facts*. There is another class of evidence—*expert evidence*. There is a saying in the legal profession that there are three classes of witnesses who should not be trusted—liars, damned liars and experts. That is a grave injustice, for we cannot get along without experts in any technical subject. Here you must remember that you are not testifying to facts. You will be given *a basis of fact*. Having got through with that, you will be asked your *deductions and your opinions*. Whenever you know that you are going to be summoned into court, *read up your books* and read the latest authorities, because you can rely upon it if you have counsel who is worth his salt, that he will spend weeks in familiarising himself with all the details, both from books and from leading practitioners, and he will have these books in court, and he will have them marked, and he will put questions to you, and if he can find you tripping so much the better. Therefore be prepared, not only for the purpose of protecting yourself, but for the purpose of proving yourself a good witness and a good citizen. Whenever you are going to be called into court, even the coroner's court, read up all about it. No one need be an expert witness unless he wants to, he can decline. All experts are somewhat under suspicion. This is unfair, because anyone can differ in opinion. About facts they may differ to a slight extent—people do not all observe facts in the same way, but if they are telling the truth they will agree in the main. But it is quite different with expert evidence—*that* is based on opinions.

"The whole facts will be recited to you in court. You should apply through counsel *to be allowed to remain in court* whilst the evidence is being taken. It is an advantage to hear all the facts narrated. You will grasp the situation better if you have *heard* all the evidence given. If you are an expert you are not testifying to facts. You must take the facts as given to you, though they may seem to you absurd. You are only asked to give your opinions on a certain set of facts, and you are not acting honestly if you eliminate one of these facts because you think it is not so.

"People will naturally differ in opinion as the result of difference in intellect. Just to show you how judges disagree. A case was originally tried in Vancouver. It went on to the Court of Appeal, where I was sustained by 3 to 2. It went up to the Supreme Court of Canada. There were two points at issue. I had decided in favour of the plaintiff. The total number of judges before whom the case came was 13. In the Supreme Court the court divided in such a way that, counting myself, it was 6 to 6, so that the eventual decision depended upon one man. The thirteenth man took the other view, and the result of his taking the other view was to give judgment to the plaintiff. The criticisms of experience when they are honest are invaluable, but unfortunately in

obtaining expert witnesses each side seeks to get professional men who will advance their particular views.

"The doctor who is asked to give evidence as an expert witness should get his facts from counsel, but he should form an absolutely unbiassed opinion, and if he finds he cannot support the case he should say so at once. In B. C. I cannot recall any case where the integrity of expert witnesses has been in question, but you know what it has led to on the American side. It has had the most disastrous effects.

"The best way to show you are trying to be fair is to put yourself in the other fellow's place. Consider you are interested on *that* side, then you are likely to prove a perfectly qualified expert witness.

Insanity—A Plea.

"Doctors are very often called to give evidence as to the *mental condition of people*. Now insanity from the standpoint of the law is a very different thing from insanity from a medical standpoint. The legal definition of insanity is that laid down in 1846. The sciences of psychology and psychiatry have made enormous strides since then, yet in 1896, when the British government referred this definition to the Medico-Psychological Society of Great Britain, those gentlemen considered the definition, and it was afterwards taken to their annual convocation, and their report to the government was that, while they did not agree with that definition, they were unable to suggest any change.

"The trouble with the medical man who is called as an expert on insanity is that he looks at it from a medical standpoint. I think in the main medical men are of the opinion that 'insanity' has been brutally treated in the law courts. They are influenced by the idea of the consequences. Usually the defence of insanity is made in murder cases. If a man is found guilty of murder the judge has no discretion but must sentence him to be hanged. To allow yourself to be influenced by this fact is to fail in your duty as a citizen. If you do not agree with capital punishment, the court is not the place to air your views. Parliament can alter the law, but so far as the courts are concerned they are there to administer the law as it is, and it would be a sad day for any country if the courts were at liberty to depart from that, because then you get away from law to the point of view of the individual. Therefore, when you go into court remember the legal definition of insanity which is this:

"Every man is presumed to be sane. He is *only insane legally if he does not know the nature of the act that he has committed and does not know it is wrong*. That definition does not involve any question of morality. As regards the first part of this definition, if the person knew when he pulled the trigger that he was firing a pistol, then insanity cannot be put forward as a defence. Secondly, the person must know that what he did was wrong. Now that is where medical witnesses are apt to go astray. This does not mean 'morally wrong,' but it means that the person is conscious of *doing something that the law will punish*. It may be

that he thinks some person is attacking him. If he kills, with this conviction, he is acting in self-defence and is not guilty. If, however, he does the act through revenge, although insane, the law will hang him. The plea of loss of control does not constitue a defence. Dozens of medically insane men have been hanged in Canada, because the law takes no cognizance of the power of control.

"The medical men may say that the man does not know he is acting against the law—he has mental disease, and as a result he has an irresistible impulse to kill. This leads us into positions that may have the most serious consequences. You remember the society I mentioned just now declined to recommend any change in the definition of insanity to the British authorities. The American definition is the same as ours, and yet it has been abused to an enormous extent.

"Now what are the consequences of the admission of this plea of temporary insanity, leading to an acquittal in murder cases? The man is sent to an asylum. Here he has the right to apply for a writ of Habeas Corpus. If he is then sane he must be let out and you cannot prevent it. You are dealing with a man's liberty. He may, and probably will, have another violent impulse to kill, leading to another crime. This is the reason we lawyers say we will have no brainstorm defences in murder trials in Canada. It may be argued that the man is insane and can be kept in the asylum, but insanity is always a matter of opinion, and you can get experts on both sides..

"Therefore remember the legal definition of insanity, and remember that the court must adhere to that definition. When, therefore, you are called as a medical witness, *do not use the word insanity* at all, because you will be asked what you mean by it. You should let the definition be given to you and base your evidence on that. It is a difficult position. Every word you say will be combed over with a fine toothcomb for weeks, and perhaps months afterwards. If you use the word 'insanity' it may prove a very serious matter, it may mean having the trial all over again. I understand the medical point of view perfectly well, but what the medical man says may have undue weight with the jury, who like to believe the doctor's evidence.

Drunkenness.

"With regard to drunkenness, how does the law regard this? Originally it was no defence at all because it was a voluntary act. If a man took liquor, and became intoxicated he was supposed to have to bear the consequences, but the law has been modified to a certain extent and is now a little more merciful. The law now says that *where a crime involves 'intent,'* the defence of drunkenness cannot be raised. Here you see the difference between the plea of drunkenness and the plea of insanity. In insanity the man does not know the nature of the act and does not know it is wrong. In drunkenness the only defence can be that the man was so intoxicated that he could not form an intent, and it is important to note that *a man who was intoxicated cannot plead temporary in-*

sanity. He must choose. If he is going to plead insanity he must plead it as such. If he is going to plead drunkenness he must show that he was incapable of forming an 'intent.' Mere weakening of the will is not sufficient. The 'intent' is an operation of the will, a faculty of the soul. I cannot define it more closely, but it is something 'not material.' How are we to determine whether the man was capable of forming an 'intent' or not? This can only be determined *by what he says or does at the time of the act*. This point may not appeal to medical men, but, again, it is the law. You are apt to be called to give expert evidence in cases where an attempt will be made to reduce the plea to insanity. I have heard some medical men say, 'The man was insane—insane through drink.' Remember, a man must plead either insanity or drunkenness. He must choose."

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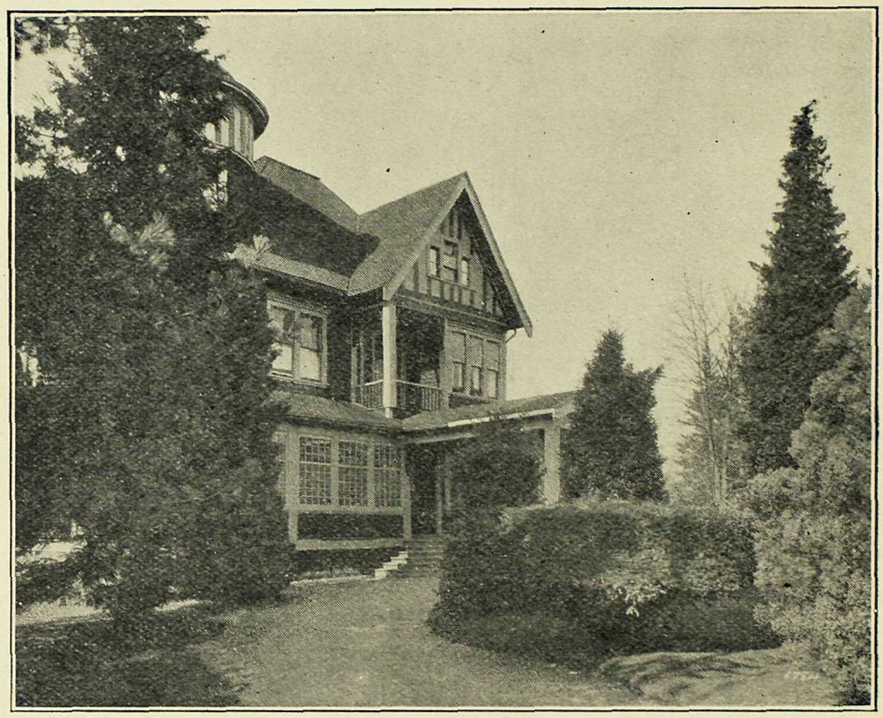

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Reference ~ B. C. Medical Association

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