

# Western Canada Medical Journal

A MONTHLY JOURNAL OF MEDICINE  
SURGERY AND ALLIED SCIENCES

10 DOLLARS A YEAR

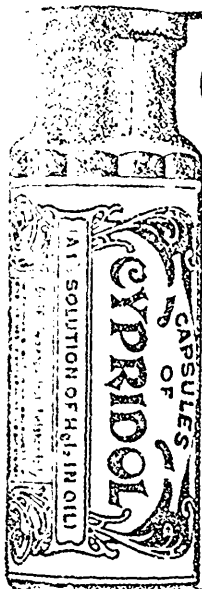


WINNIPEG, CANADA

VOL. II.

OCTOBER, 1908

NO. 10



## CYPRIDOL in SYPHILIS

Cypridol is the *specific bin-iodized oil* (1% strength) of Fournier, Panas and other French specialists; preferable to other mercurial preparations, since it does not cause diarrhoea or salivation.

Administered by deep intramuscular injections in the gluteal region, or in capsules by the mouth, each of which is equivalent to 1-32nd of a grain of red iodide of mercury.

Dispensed in original bottles of 50 capsules, and in ampulas of 2 c. c. each, or in 1 ounce bottles for injection.

Prepared in the laboratories of VIAL of Paris.  
Agents, E. FOUGERA & CO., New York

in all disorders of the respiratory tract in which inflammation or cough is a conspicuous factor, incomparably beneficial results can be secured by the administration of

# Glyco-Heroin (Smith)

The preparation instantly diminishes cough, augments expulsion of secretions, dispels oppressive sense of suffocation, restores regular, pain-free respiration and subdues inflammation of the air passages.

The marked analgesic, antispasmodic, balsamic, expectorant, mucus-modifying and inflammation-allaying properties of **GLYCO-HEROIN (SMITH)** explain the curative action of the Preparation in the treatment of

**Coughs, Bronchitis, Pneumonia,  
Laryngitis, Pulmonary Phthisis,  
Asthma, Whooping Cough**

and the various disorders of the breathing passages.

**GLYCO-HEROIN (SMITH)** is admittedly the ideal heroin product. It is superior to preparations containing codeine or morphine, in that it is vastly more potent and does not beget the bye-effects common to those drugs.

*Dose.*— The adult dose is one teaspoonful, repeated every two or three hours. For Children of more than three years of age, the dose is from five to ten drops.

Samples and exhaustive literature bearing upon the preparation will be sent, post paid, on request

**MARTIN H. SMITH COMPANY.**  
NEW YORK, U.S.A.

# Western Canada Medical Journal

GEORGE OSBORNE HUGHES, M.D.,  
*Editor.*

REGINALD PHILLIPS,  
*Business Manager.*

Commonwealth Block, Winnipeg, Man.

Published on the Fifteenth of Each Month

VOL. 2.

OCTOBER, 1908

No. 10

---

## INDEX TO CONTENTS

---

REPORT OF THE ANNUAL MEETING OF THE BRITISH COLUMBIA MEDICAL ASSOCIATION.....	453
"Presidential Address," J. M. Pearson, M.D., Vancouver.	
"Report on Teaching of Hygiene by the B.C. Association," Dr. W. D. Brydon-Jack, Convenor of Committee, Vancouver.	
"Notes on Two Cases of Abdominal Pregnancy, with Remarks on Treatment of Placenta," George Vernon Lockett, M.D., Vancouver.	
"Puerperal Neuritis," W. L. Coulthard, M.B., Toronto.	
"The Prevention and Treatment of Three Common Diseases of Children," Harold Dyer, M.D., Vancouver.	
"BERI-BERI" (Kakk).....	W. H. Sutherland, M.D. 493
EDITORIAL NOTES .....	495
Formation of Manitoba Provincial Medical Association—Do Our Councils Perform Their Duties?	
MEDICAL NEWS .....	497
CORRESPONDENCE .....	500

---

## NOTICES

Subscription price Two Dollars per annum in advance, postpaid. Single Copies 25 Cents.

Advertising rates to be had on application.

Remittances at the risk of the sender, unless made by Registered Letter, Cheque, Express  
Order or Postal Order.

Subscribers not receiving their Journal regularly would confer a favor by reporting such to the  
"Business Manager."

Original Articles, Letters and Reports should be addressed to "The Editor," P.O. Box 450  
Winnipeg.

All Business Correspondence should be addressed to "The Business Manager," P.O. Box  
450, Winnipeg.

# HORLICK'S MALTED MILK

The Original and  
Only Genuine

The Malted Milk that gives you the benefits of the pioneer manufacturer's experience of over thirty years. Ensures the nutritive effects of pure milk and selected malted cereals with the minimum digestive effort. A food for infants that has practically the same caloric value as mother's milk. A welcome relief from the usual plain milk diet in cases of Typhoid Fever, Pneumonia, in Convalescence Consumption, Neurasthenia, or after Surgical Operations.

That Your patients may obtain the best as well as the original and only genuine, always specify "Horlick's."

Samples sent, free and prepaid, to the profession upon request.

HORLICK'S MALTED MILK COMPANY  
RACINE, WIS., U.S.A.

GILMOUR BROS. & CO., MONTREAL  
SOLE AGENTS FOR CANADA

In the local treatment of SKIN DISEASES, THE HAIR AND SCALP, GOUT,  
RHEUMATISM, SCIATICA, LUMBAGO, ETC.

## SULPHAQUA

Employed in the ordinary Bath and Toilet Basin proves of great value possesses powerful antiseptic, antiparasitic and analgesic properties. Relieves intense Itching and Pain, and it is without objectionable odor.

SULPHAQUA  
SOAP

Recommended for the Skin and Hair. Especially useful in the treatment of Acne and Seborrhoea of the Scalp. Largely used in Dermatological Practice

In boxes of  $\frac{1}{2}$  dozen and dozen BATH CHARGES; 2 dozen TOILET CHARGES and  $\frac{1}{2}$  dozen SOAP TABLETS.

Obtainable from Chandler & Fisher, Ltd., Winnipeg; The National Drug and Chemical Co. of Canada, Ltd., Montreal, and all Branches, and all the leading Wholesale Houses.

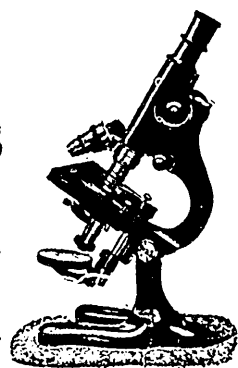
Samples and Literature on request. Advertised only to the profession.

**THE S. P. CHARGES CO.,** Manufacturing Chemists  
St. Helens, Lancs., England

Founded 1756

*Voigtländer*

**MICROSCOPES**



HIGHEST OPTICAL QUALITIES.  
 SUPERIOR WORKMANSHIP.  
 LATEST IMPROVEMENTS.  
 NONE BETTER IN QUALITY.

Catalog No. 370 free on request.

VOIGTLÄNDER and SOHN, A.G.—NEW YORK—225 Fifth Ave.  
 Factory: BRUNSWICK, GERMANY.

**FOR SALE**—Good City Practice for a Doctor who will buy house and furniture. Good district. No opposition near. Will consider Drug Store or Country Practice in exchange. For particulars apply

“A. B.”

Care Western Canada Medical Journal

**PHENO-BROMATE**

has proven itself

“The ideal product of its class.”

DYSMENORRHEA,  
 FEVERS,  
 RHEUMATISM,  
 GASTRALGIA,  
 PNEUMONIA

A prompt, certain and safe  
 Antipyretic,  
 Analgesic,  
 Antineuralgic,  
 Antirheumatic,  
 Sedative and Hypnotic.

CEPHALALGIA,  
 LA GRIPPE,  
 NEURALGIA,  
 LABOR AND  
 AFTER-PAINS.

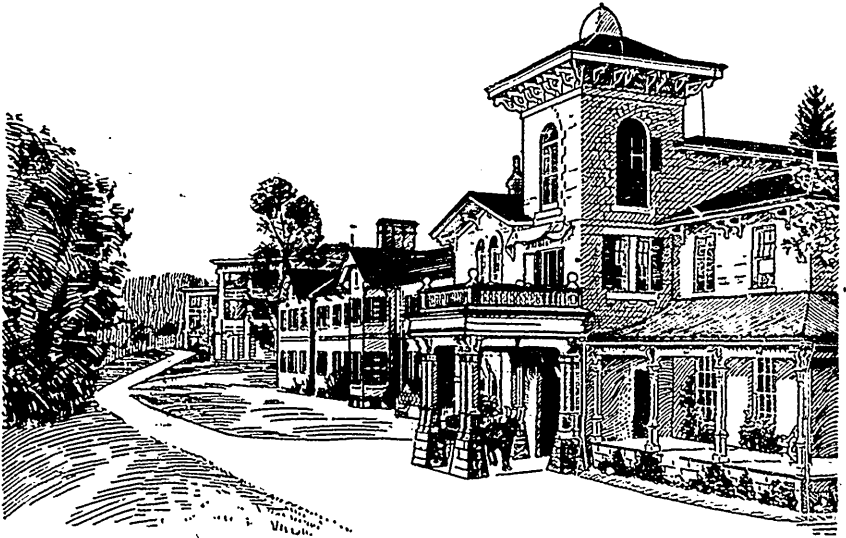
PHENO-BROMATE, a perfected synthesis of the phenol and bromine derivatives, has the combined effect of relieving pain, reducing temperature and inducing sleep, without depression or other objectionable action.

LIBERAL SAMPLE AND  
 LITERATURE SENT FREE  
 ON APPLICATION.

THE PHENO-BROMATE CHEMICAL CO.,  
 38 Murray Street, New York.

# The Homewood Sanitarium

## Guelph, Ontario



For Mental and Nervous Diseases.

Unequaled in Buildings and Equipment.

Conducted strictly on ethical principles.

Handsome new building, splendidly equipped, opened in 1907.

Most improved Hydrotherapeutic apparatus.

Special attention to mental cases requiring gynecological treatment.

A limited number of habit cases received in separate departments.

Beautiful, secluded, well-wooded grounds—essentially private.

Provision for recreation according to season.

Situated 48 miles west of Toronto on Grand Trunk and Canadian Pacific Railroads.

For particulars and booklet apply to

**DR. A. T. HOBBS,**

Medical Superintendent

Tonsillitis  
Bronchitis

Abscesses  
Boils

INFLAMMATION'S ANTIDOTE

APPLY HOT AND THICK

Ulcers  
Erysipelas

Synovitis  
Lymphangitis

\*  
\*  
\*  
\*

\*  
\*  
\*  
\*

\*  
\*  
\*  
\*

# == LISTERINE ==

The original antiseptic compound

*Awarded Gold Medal (Highest Award) Lewis & Clark Centennial Exposition, Portland, 1905; Awarded Gold Medal (Highest Award) Louisiana Purchase Exposition, St. Louis, 1904; Awarded Bronze Medal (Highest Award) Exposition Universelle de 1900, Paris. : : : : : : : :*

The manufacturers of Listerine are proud of Listerine—because it has proved one of the most successful formulæ of modern pharmacy.

This measure of success has been largely due to the happy thought of securing a twofold antiseptic effect in the one preparation, i.e., the antiseptic effect of the ozoniferous oils and ethers, and that of the mild, non-irritating boric acid radical of Listerine.

Pharmaceutical elegance, strict uniformity in constituents and methods of manufacture, together with a certain superiority in production of the most important volatile components, enable Listerine to easily excel all that legion of preparations said to be "something like Listerine."

The success of Listerine is based upon merit  
The best advertisement of Listerine is—Listerine

LAMBERT PHARMACAL CO.  
ST. LOUIS, U. S. A.

## PHENOL-PHTHALIEN

For the Treatment of

### CONSTIPATION

Acts without pain or discomfort to the patient.

#### C. T. PHENOLPHTHALEIN

1 1/4 Grs.

(Ct. No. 197 Frosst)

Dose—1 to 4 Tablets.

#### C.C.T. Pheno-Tonic Laxative

(C.C.T. No. 212 Frosst)

Phenolphthalein ..... 1/2 gr.  
Ext. Nux Vomica ..... 1/4 gr.  
Ext. Cascara Sagrada ..... 1 gr.

Dose—1 to 3 tablets, three times daily.

#### C. C. T. PHENO-ACTIVE

(C.C.T. No. 213 Frosst)

Phenolphthalein ..... 3/4 gr.  
Aloin ..... 1-5 gr.  
Ext. Belladonna ..... 1-16 gr.  
Strychnine ..... 1-120 gr.  
Ipecac ..... 1-16 gr.

Dose—1 to 2 tablets night and morning.

Literature and Samples  
upon Request.

Charles E. Frosst & Co., Montreal



# WESTERN CANADA MEDICAL JOURNAL

---

VOL. II.

OCTOBER, 1908.

No. 10

---

## ORIGINAL COMMUNICATIONS.

---

### ANNUAL MEETING BRITISH COLUMBIA MEDICAL ASSOCIATION

The Ninth Annual Meeting of the British Columbia Medical Association was held in Vancouver on August 20th and 21st. The President, Dr. J. M. Pearson of Vancouver, presided.

The meeting was well attended, some seventy-five in all signing the register. A large number of visitors was also present, including Dr. Joseph Price of Philadelphia, Dr. G. S. Ryerson of Toronto, and Drs. J. B. Eagleson, A. E. Burns, Canfield, Peterkin of Seattle, Dr. A. H. Coleman of Tacoma.

A very interesting programme was presented and fully discussed. The special Committee appointed at the last meeting to report on School Inspection and Hygiene, particularly with regard to the manner in which it is taught in our public schools, presented an exhaustive and valuable report. Much credit is due to Dr. W. D. Brydone-Jack and the other members of the Committee for their valuable contributions on this subject.

The question of the formation of a Western Canada Medical Association was fully discussed and the following resolution was passed: Resolved, that in the opinion of this Association the formation of a Western Canada Medical Association is inadvisable and the Secretary be instructed to notify the promoters of the scheme to this effect.

A letter was also read from Dr. Lafferty of the College of Physicians and Surgeons of Alberta. Subject, the formation of a joint Board of Examination for the four Western Provinces of the Dominion, whereby candidates for license to practice will be able to register in the Provinces of Manitoba, Saskatchewan, Alberta and British Columbia, on passing the one examination.

The following resolution was adopted: Resolved, that this Association does not approve of the scheme of Reciprocity with regard to registration with the Provinces of Manitoba, Saskatchewan and Alberta.

The question of affiliation with the Canada Medical Association was also discussed and the idea was indorsed by the Association, and the Executive Committee was given power to work out the details and to carry it into effect.

Under the head of School Hygiene it was decided to memorialize the Government and request them to appoint a Medical Adviser for the Education Department so that the question of Hygiene and its teaching in our public schools might be carried out under the supervision of a person specially qualified on this subject.

A special committee which was appointed at our last meeting to revise the Constitution and By-laws presented their report. The only important change was the making of the membership fees permanent, that is, members to continue in good standing must pay their fees annually whether in attendance at the meeting or not.

The following were elected officers of the Association: President, Dr. C. J. Fagan, Victoria; Vice-President, Dr. Glenn Campbell, Vancouver; Treasurer, re-elected Dr. J. D. Helmcken, Victoria; Secretary, re-elected Dr. R. Eden Walker, New Westminster.

In response to a pressing invitation to hold the next annual meeting in conjunction with the State Associations of Washington, Oregon and Idaho, the next meeting place will be Seattle, where a joint meeting of the three associations will be held, the exact date to be fixed later, probably some time in August, 1909.

PRESIDENTIAL ADDRESS

BY

J. M. PEARSON, M.D.; C.M. (Trinity University, Toronto)

VANCOUVER, B.C.

On rising to deliver the Annual Presidential Address, I must thank you for the honour conferred in electing me to this office. This election is the result, less perhaps of any intrinsic merit, than of the fact that I have been associated with the Society from its inception and have always taken considerable interest in its welfare.

We celebrate to-day the eighth Anniversary of the foundation of the B. C. Medical Association and I am happy to say that those who took prominent parts in that foundation are still among us and still interested in the Society's career. We also mourn the loss of one of our honorary members, whom many will recal as the eloquent speaker and genial raconteur of the meeting held in 1901; I refer to the late Sir M. Foster whose visit was an inspiration to all who came in contact with him.

Working much, as I have done, for some years in connection with Medical Societies, it occurred to me to take advantage of having, perforce, to address you and to make of the preparation of my remarks, a sort of interim or recess, to review what the years have brought as experience in this line; to set down my impressions as to the value, if any, of these Societies to the Profession and to evolve an "apologia pro vita mia" so far as it concerns Medical Societies and kindred subjects.

The Art of Medicine has always been at a disadvantage in that a large proportion of a man's skill and experience necessarily dies with him.

The personal element thus created is a source of weakness in our midst, putting an obstacle in the way of progress, in that a new-comer may not begin at the place where his predecessor left off—may indeed count himself fortunate if he has not to begin where his predecessor began.

It has seemed to me that Medical Societies, which in these later days have become almost universal, ranging from the humble Society of the small town to the great International Congresses, are perhaps a protest, implied rather than impressed, against this obstacle and represent a desire to minimize, so far as possible, its hindrance to progress.

By means of the gathering together of medical men in meetings such as this, an attempt is made to obtain a record of the experience of members, as it is built up from day to day. To seize the passing observation, the occasional experiment, the rare case, the failure, the success 'ere they are whirled into the past and numbered among forgotten things.

Here also may be heard those personal impressions as to this or that mode of treatment, or as to the use of such an instrument or the other drug; impressions, the result of insensible weighing of for and against, which, though lacking the apparent exactness of the percentage and statistical method, are none the less of great value.

Our neighbour's skill is all his own; of it we may not take. We must develop in the same school of constant application, unless, perchance, a favouring Providence has endowed us at birth with the "tactus eruditus." But out of the fulness of his experience we may learn, and there is no better way of getting such benefit than by attending the meetings of the Medical Society.

We cannot in the nature of things, all of us, all the time, sit at the feet of the Medical Prophets of the day; even the most receptive mind cannot only receive, and hope to thrive. Nor, on the other hand, is it necessary in these days to preach the doctrine of the "strenuous life." Action is indeed necessary, so also is acquisition. We require, in fact, a school to which we can constantly recur, to see, to hear, to compare, to argue; in the main, to acquire something and to advance. Where, for the General Practitioner, the rank and file of our profession, so fortunately situated, perhaps, that "two or three may gather together," where can he find these wants so adequately, so easily filled, as at the meetings of Societies such as ours. Here, in deed, the man of maturer years may "exchange old lamps for new," keeping to some extent in

touch with new methods of doing old things.

The establishment of the Medical Society, as we know it to-day, is practically co-incident with the marked advance in medicine which began during the latter part of the 18th Century. Medicine at this time was fairly emerging, under the influence of the development of scientific thought, from the mists and cobwebs of the systems and traditions with which, in the Middle Ages, it had become surrounded.

Men like Sydenham in England, friend and contemporary of Locke, in the middle of the 17th Century and Boerhaave in Holland at the beginning of the 18th Century had done much to lay broad the foundation of the doctrine of experience, observation and experiment upon which the triumphs of Modern Medicine have been based.

Sydenham indeed "declined to be like the man who builds the chambers of the upper story of his house before he has laid securely the foundation walls."

One of the effects of the new thought was the establishment of Medical Societies. Men working in a common cause for the common good, must have felt the necessity of a common meeting place where discussions of their interests could be carried on. Once commenced, however, I think we may fairly claim for Medical Societies as the "clearing houses" of medical opinion, no inconsiderable share in the progress of medicine; so marked a feature of the 19th Century.

Doctors are also in need of a common meeting place on account of the necessarily isolated character of their occupation. Much of our work is personal, done in private without onlookers to applaud or criticize. Such a condition tends to bring on a sense of inability or of arrogance according to the nature of the individual. To either or to both these characters, the Medical Society offers a wholesome corrective. Here, the over-weighted professional man who feels the burden of his cares and responsibilities pressing too heavily upon his tired shoulders, may find comfort and stimulus when he learns that "there are others." To the arrogant the Medical Society is even more necessary. The man who knows it all should make a special point of coming to the meetings; he

may find that in medicine also, things that have been "hidden from the wise, have been revealed unto babes."

Isolated as we are, the Medical Society affords us valuable opportunity for rubbing off the corners and angles which everyone so situated appears to acquire. Here we may realize that our fellow practitioners are not merely opponents and rivals; but, they with us, are part of a great army, each individual of which profits by the companionship and example of his neighbours; no one unnecessary if he but do his best; each helping to a greater or less extent towards that ultimate victory which is the far-off goal of our ambitions.

I am not one of those to cavil unduly at the so-called "commercialization" of our Profession. I do not believe he is worse doctor for being good business man and for the solidarity of the Profession it is a thing to be encouraged. The doctor who is as well "man-of-the-world" sees things in better perspective and tends to drop the petty bickerings which from time immemorial have formed a standing gibe against medical men.

I think it is a notable feature of the present day, and especially may I speak of this present city and province, the extent to which medical men are able to meet and to dwell together in peace and unity, to "do as adversaries do in law, strive mightily, but eat and drink as friends."

I may refer also to the safety valve action of the Medical Society. The evil effects of too high pressure steam are generally known; unless the pressure is relieved a catastrophe is imminent. In the Medical Society an adequate safety valve is at hand. Steam generated by the fire of conviction on the milk question or club practice or the parlous condition of the Medical Council may here be ventilated to the full.

For this reason one may recognize the value of affording reasonable opportunity for the discussion in Medical Societies of what one may call "peri-medical" topics; not of a strictly scientific nature. Even the most erudite philosopher is still a human being, if you prick him he bleeds and being human may be none the worse philosopher for having interests, perhaps somewhat outside his philosophy. There is, of course, a limit beyond which these discussions should not be allowed

to encroach. The primary object of the Medical Society is the advancement of science; but circumspectly sandwiched among the graver topics these lighter trifles may still find a place.

The philosopher Bacon, in his essay on "Friendship" referring to the value of conversation with friends observed that "Certaine it is, that whosoever hath his minde fraught "with many thoughts, his wits and understanding doe clarifie "and break up in the communicating and discoursing with "another, he tosseth his thoughts more easily, he marshalleth "them more orderly, he seeth how they look when they are "turned into words. Finally he waxeth wiser than himselfe "and that more by an houre's discourse than by a daye's "meditation."

Do not these words sum up most narrowly the mode in which, intellectually, the Medical Society may be of value. To it comes the busy man "his minde fraught with many thoughts" chaotic, inarticulate; fleeting impressions, half drawn conclusions. Being perhaps under the necessity of speaking, by virtue, we will say, of an importunate secretary or urged thereto by the promptings of his own convictions, he finds, as he prepares his paper, that both "wits and understanding doe clarifie."

In the speaking "he tosseth his thoughts"; as hay is spread and tossed about after a night of rain that the sun and the wind may dry and preserve it; so our speaker lets it upon his, may be darap and dusty, thoughts, the sharp cool wind of criticism or the genial sun of approbation. "He seeth how they look when turned into words"—and the result—"he waxeth wiser than himselfe and this more by an houre's discourse than by a daye's meditation."

It is peculiarly fitting that Lord Bacon who 300 years ago pointed out the way which has led to the developement of Science and scientific medicine should also have provided us with such an apt description of the advantages attendant on meetings like the present.

The practice of medicine, especially the early days of practice, seems to offer to its adherents many opportunities of deviating from the straight and narrow way. During these

times, real or fancied neglect by those who should and do know better, may induce a feeling of antagonism or resentment, which in turn may be followed by excursions on the border-land which demarks the legitimate from the questionable.

It is at this point, that the Medical Society, willing to gather in all and sundry, divining the good that may be through the doubtful that is, may, by admitting such an one within the fold, save to the Profession and to the Public, a valuable career. A certain aroma of "noblesse oblige" attaches itself to the members of any well ordered Medical Society which exercises a constant pressure of unobtrusive guidance upon them.

Especially does the Medical Society appeal to the General Practitioner, being at once the repository of the results of his experience, observation and experiments and his readily accessible post graduate school of information.

Here may be said to be the final tribunal before which all observations relative to medicine must appear, and at whose verdict they finally stand or fall. With the Medical Society as the meeting place of the General Practitioners of the day, the future of medicine largely lies; for I venture to think that so far from the general practitioner becoming obsolete, he is to-day a more useful and indispensable an individual than ever before.

One has only to glance over the literature of the last 50 years to become aware of the immense progress he has made. In the domain of surgery, for instance, many ordinary doctors of to-day are doing more and better work than the regular surgeon of 25 years ago and while perhaps in the excess of enthusiasm, zeal may at times outrun discretion, this is but a phase in the process of education and evolution.

In Internal medicine he has learned the virtue of the blessed results which follow upon a judicious policy of "standing by." He is not now, as formerly, ever alert with his therapeutic "shillalee," to smash the head of any and all symptoms as appear. Perhaps here also, it may be that the pendulum of fashion has overswung itself or that this attitude forms a convenient excuse for postponing the study of the



intricate problems of pharmacology. But, be this as it may, it is certainly a far cry and a blessed one from the shavings and blisterings, the bleedings and burnings, the purges and clysters, the opiates and the salivatings of not many years ago; and strange as it may appear, like the Jackdaw of Rheims and the Cardinals Curse "nobody seems one penny the worse."

Bacteriology and Pathological Histology practically unknown, we may say, 25 years ago, are now of daily assistance to throw light in dark places; while in the use of the X-rays and other instruments of precision we have an adequate substitute for the "clinical sense" on which our fathers relied.

Nor does this increased knowledge necessarily imply a more laborious life, for with the advent of scientific methods in medicine much of its mystery has disappeared and in all walks of life the unknown is the more exacting. After all, the practice of medicine is largely "applied common sense" and as the practical, daily supersedes the mysterious, a great weight is lifted off the shoulders of the practitioner.

But all these advantages constitute the general practitioner a debtor. He owes much to the predecessor, he owes much to posterity.

For the discharge of his obligations, the Medical Society offers a convenient resort; to it he may, and must, bring the result of his experience, his failures and successes. He must show his cases as the result of work done or in order to gain enlightenment for work to do.

I venture to suggest to my fellow members, here and elsewhere, that we, as a body, have hardly heretofore done enough along the line of original work. It would be a grand thing if each of us would make a hobby of one particular investigation, no matter what or how small the detail. To fix on something early in one's career, to be always on the watch for it, to observe, investigate, think about it at convenient seasons for twenty years and then to bring the results to the Medical Society.

In a single generation we would have such a flood of light thrown on the field of Clinical medicine as has never before been seen.

Nor is such an idea Utopian; our archives are full of the histories of good work done under unfavourable circumstances. Let me quote from the preface to a book of one who is a living example. McKenzie, in his recent work on "The Pulse," which has become classical, says, "This volume has been written amid the distractions of the life of a busy General Practitioner. I have seldom been able to give an uninterrupted hour's study to the subject. While working out some argument interruptions have often been fatal to its completion as it has been days or and even weeks before I have again been able to resume it." Surely, in this modest and pathetic enumeration of difficulties encountered and overcome, there is vast encouragement for us, demonstrating once and for all that there is no impossibility in combining sound original work with the ordinary duties of the family doctor. It belongs to each one of us, that, divesting our minds of the incubus of authority and superstition, we carefully and accurately observe and truthfully record the various phenomena of disease with which we daily come in contact. This is essentially the part which the general practitioner may assume in helping to strengthen the foundations of scientific medicine and transform it from an Art based on a system of rules or traditional procedures to an Art based upon science or knowledge gained by observation, experiment and reasoning.

Finally, and as "the conclusion of the whole matter," I leave with you the words of the founder of the lectures annually delivered to commemorate the life of the great Harvey, which also amply and sufficiently set forth the duties and privileges of the Medical Society, namely "to incite Fellows and Members to search out and study the secrets of Nature and to urge a spirit of gracious courtesy and kindness among ourselves."

---

#### REPORT ON TEACHING OF HYGIENE BY THE BRITISH COLUMBIA ASSOCIATION

Committee { DR. W. D. BRYDON-JACK, Convenor, Vancouver  
DR. R. L. FRAZER, Victoria  
DR. G. E. DREW, New Westminster

Mr. Chairman and Gentlemen:—

As a member of the Committee appointed by you at our last session to examine into the teaching of Hygiene in our Public Schools and lay before you at this meeting the results

of our investigation, I would beg to present the following:—

The Education Office reports as follows:—The study of Physiology and Hygiene is taken up in our Public and High Schools. Pathfinder No. 2 is the text book prescribed for this subject in the senior grades of our public schools, and Martin's "Human Body" for high schools. In the Normal School the students are carefully instructed in all branches of the subject and also taught how to present the subject to their pupils. The subject is covered in the normal schools by a careful study of the prescribed text and lectures on the teaching of Hygiene.

The High School reports that Physiology and Hygiene are optional subjects with Greek and French and that they have chosen the Greek and French so apparently there is no Physiology or Hygiene taught there.

The normal school reports that the subject of Physiology and Hygiene are supposed to be taught in our public and high schools. In the examinations, Greek and French are its equivalents and are generally taken.

In the teaching of Psychology some Physiology is reviewed more especially regarding the various organs of senses. The laws of Hygiene are considered in regard to lighting, ventilation, sanitation, etc., of the school-room. Text book, Landon's Principles and Practice of Teaching.

There are some lectures given from a work on school Hygiene by E. R. Shaw.

Our Public Schools report that the only text book is the new pathfinder No. 2 and pupils writing on the entrance examinations to the High School are examined on their knowledge of this work. Teachers are expected to give oral instruction on Department, Morals and matters relating to health.

Vancouver is further ahead than any other place in that, they have appointed a medical inspector of schools and the superintendent writes that this appointment has done more than any other agency to direct the attention of parents, teachers and pupils to the question of the care of the body. Our medical inspector has been very painstaking in instructing both pupils and parents.

South Vancouver has also a medical inspector for her

three schools who is doing excellent work.

This comprises all that is done in the province of B. C. in the way of teaching Hygiene in our public schools. The results are so obvious that it seems to me almost unnecessary to make any comment.

To sum up in the words of Dr. Helen C. Putman, who has done such excellent pioneer work along these lines, the resulting instruction in Hygiene both in theory and practice is brief, desultory, unsymmetric, often misleading and generally inconsistent.

Dr. Fagan, our Provincial Medical Health Officer, in his recent address to the teachers of B. C., states that the scope of the Science of Hygiene is the preservation and promotion of human health, its task, therefore, consists first of all in the prevention, restriction and removal of sickness and disease, and the prolongation of the individual's life.

Human life is reducible to a cash basis. Considered in his purely materialistic aspect the average man represents a certain earning capacity for the Province. Incapacitating illness of the individual is a temporary monetary loss to the province and the public and the death of the individual a permanent loss.

The province, having made education compulsory, cannot divest itself of the responsibility of taking reasonable precautions to ensure that the conditions under which children are instructed shall not be such as to disseminate infectious diseases or produce physical deterioration. (Physical Deterioration.....A. Watt. Smith).

Compulsion in education presupposes two things, first, that the child is mentally and physically fit to be educated, second, that after his education is completed in the Public Schools, he is capable of remaining fit for the duties of civil life and profiting by the education offered, and so repay the province for his or her training.

If a child is not educable on ordinary lines by reason of some defect, this must be removed or ameliorated and of that be impossible, the child must be removed from ordinary school routine. In this way most children will be rendered as far as possible educable, some will be safe-guarded from

the over-pressure of unsuitable instruction and the public funds will be insured against waste and unproductive expenditure. The attempt to force development, especially mental development, against the laws of nature, results in a waste of money and in positive injury to the children.

Pedagogues apparently persist in dragging new generations of men and women through old and worn out ruts of knowledge that future ages shall never have need of.

Dr. Helen C. Putman, Chairman of the Committee of American Academy of Medicine, in 1905, in her report on teaching of Hygiene in public schools finds five chief methods, disassociated, however, in the curriculum, by which public schools are directly teaching personal, domestic and public Hygiene, including Physiology and Anatomy.

The direct methods are:—

(1). Domestic Science including Cookery, foods and nutrition, sewing, materials and dressing, care of the house and the sick, emergencies.

(2). Physical training including gymnastics, play and athletics and various physical habits.

(3). Biology, nature study and science, teaching, showing, conditions, phenomena and processes of physical life.

(4). Medical inspection, teaching, prevention of ill health, personal, domestic and public.

(5). Physiology and Hygiene with special reference to the nature and effects of alcoholic drinks and narcotics upon the human system.

(6). Several sporadic methods.

It is impossible in a short paper like this to go exhaustively into the reports of the Committee of the American Academy of Medicine on the teaching of Hygiene. They are extremely interesting and instructive. They will be found by those who would like to go into the subject more exhaustively in the Library of the Vancouver Medical Association, as well as other works of reference bearing on their all important and interesting subject.

Dr. J. A. Lindsay states that the chief characteristics of the child, intelligence and child character when it begins

to come under definite education influences, are the following:—

- (1). Curiosity and inquisitiveness.
- (2). Imitativeness.
- (3). Fancy romance and make believe.
- (4). Love of approbation.
- (5). Sociability and love of companionship.
- (6). Love of play and muscular movement.
- (7). Want of originaive power; tendency to follow recognized standards.
- (8). Disregard of the feelings of other persons and animals.
- (9). Deficient powers of observation.

The question arises how best to utilize these characteristics of childhood in the teaching of Hygiene in our Public Schools. We have shown that heretofore any knowledge of Hygiene is more or less haphazard both on the part of pupil and teacher, for our teachers are principally recruited from former pupils. The text books used are worse than useless, out of date and misleading.

A child is learning every moment of the day by imitation or by direct tuition, and good or bad habits are always being formed, instruction by itself is almost useless if there is no practical part.

School Hygiene embraces all that pertains to the physical welfare of the child in the course of instruction, both subjectively and objectively, including his or her own physical condition and the effects of his or her environment.

It will be easily recognized by you that the best means of teaching Hygiene is by the direct method, viz.: by, (a) Domestic Science, (b) Physical training, (c) Biology, nature study (d) Medical inspection.

Where so little has been done along these lines as in B. C. the details of a scheme must be worked out and the first step would be to have the Education Department appoint a medical man on its staff whose duties would be to inaugurate a system of instruction in our public schools and normal schools and to act as advisor to the Department. He should act under the Provincial Board of Health. In towns or cities

where a medical inspector is already appointed, they should be under the direction of the Chief Medical Adviser to the Education Department and subject to a certain supervision by the Medical Health Officer of the city.

As regards the good effects of the recognition of these four subjects in the practical teaching of Hygiene both on the present generation of children and the future generations a great deal has been written and a great deal more will be written and I would like briefly to allude to these good effects.

Other countries are making immense strides along these lines recognizing that the child of to-day is the man of to-morrow. I have reports from different countries, states and cities, both in the older countries and the newer ones.

There is no doubt in the minds of those who have studied and read and investigated available statistics that an improvement in the health of elementary school children and thus increase in the prosperity of the Province, can be accomplished in a large measure by systematic medical inspection, by a thorough training of teachers in school Hygiene, using the word Hygiene in its broadest sense and by instructing the children in the cardinal laws of health and grounding the girls in domestic economy and wholesome, simple cookery.

The teachers should realize that the girls at school to-day are the future mothers of the next generation and let them so instruct them that they will feed and care for their offspring in such a way as to make disease a rare occurrence.

Medical inspectors of schools should have cases of defective eyesight, defected hearing, bad teeth, enlarged tonsils and adenoid growths attended to as early as possible. Physical exercises should be carried out with great thoroughness combined with discrimination.

It is perhaps hardly fair to compare the conditions in the old country to this Province, but I cannot refrain from giving you an extract from the report of Dr. Robertson, Medical Officer of Health for Leith, Scotland.

As the result of the physical examination of 806 school children it was found that only 218 were without defect of any kind.

As regards teeth only 7.4% of bad teeth. There were

14 cases of Pulmonary Tuberculosis. Eye disease or refractive error was found in 44.7%. Ear disease or deafness occurred in 91 cases.

52.8% suffered from affections of the nose and throat.

There were 78 cases of heart weakness.

There were 191 cases of bone affections or deformities.

Affections of the skin were present in 119 cases.

165 cases presented glandular enlargements.

Further detailed statements and statistics would merely be wearisome, they can be investigated in our library. They all indicate an almost incredible amount of defective health among elementary school children, the future citizens.

An addition of an extra subject to the teaching curriculum carries with it no gigantic financial responsibility and may even be calculated to relieve the Provincial finances to some degree in respect of some sick leave compensation, etc., granted to teachers for temporary or permanent break-down. It will further tend to limit the interference with educational work and consequent expense now caused by certain preventable diseases and will enable better value to be got for the tax-payer's money.

Dr. Elkington of Tasmania in speaking on the subject there, and the same things applies here, says:—

The practical instruction of children in the elementary laws of health and of health protective measures involves no material expenditure and can be productive of nothing but good. Unfortunately there has been in the past rather too much done in this way for the "child as he should be," and all too little for that common object of the school-room the "child as he is." There has been too much book and too little treatment of the subject in a live practical fashion calculated to render the knowledge of Elementary Hygiene as wide spread as is the knowledge of reading; there has been too much of a tendency to gravely inform the child that indulgence in alcohol is detrimental to the human organism, and too little instruction in the benefits to be derived from the proper use of a toothbrush, and the disgrace and danger of spitting, with regular practical demonstration of the methods of ventilating and even of cleaning the school-room.



The formation of hygiene habits of breathing and above all the strenuous enforcements of correct habits of working attitude. All such teaching must be intensely practical and the habit formation of the youngest children must be fully utilized.

It is not implied that any preponderate amount of the school day should be occupied with Elementary Hygiene or that all teaching should be subordinated to it; its economic importance, however, warrants its inclusion as a frequent subject of instruction. As a pedagogic subject it needs no apology; in that it teaches the child to see, to reason, and to remember, it lends itself both to training and instruction and it possesses high ethical value. In conjunction with its allies, Domestic Economy and Civics, it practically conforms to that Science of Eugenics towards which the highest educational thinkers are striving as the coping stone of modern education.

At the meeting of the second International Congress on School Hygiene in London, 1907, Dr. Wm. Oldright, Professor of Hygiene in Toronto, in his paper on the school-room as a factor in Tuberculosis reports as follows from different tables:—

From Table 8. Ratio of Deaths from consumption in 1000 deaths from all causes of all males engaged in occupations .....	154
of male teachers .....	184
From Table 9.	
Of all white males in all occupations.....	145
And of white male teachers .....	175
From Table 11.	
Of all females in all occupations .....	215
Of all female teachers .....	256
From Table 12.	
Of all white females in occupations .....	196
Of all white female teachers .....	257
The returns are both from census enumerators and from registrations.	

It has been shown from actual official figures of the constituted authorities of Canada and the United States that the ratio of deaths from consumption amongst teachers has been largely above the average.

My paper has been directed to showing you the practical

benefits to be attained by a practical teaching of Hygiene in our Public Schools, and I trust that the day is not far distant when we shall have something definite along these lines.

Other countries have been working, the results of their investigations have pointed out the necessity of action and if we as British Columbians want to be in the foreground, we must be up and doing.

At the Second International Congress held in London, 1907, reports on work done were received from Argentina, England, France, Austria, Germany, Bohemia, Switzerland, parts of Canada, Belgium, Sweden, Italy, United States and other places.

We as Physicians ought to work together to secure better conditions in our Public Schools, a more up-to-date system of teaching Hygiene than has prevailed heretofore and this we can only do by uniting together, forgetting self, putting aside selfish motives and working together for the betterment and uplifting of the human race.

One writer puts the results of the present education as follows:—

Our present ill-advised system of Public Instruction is constantly defeating its own ends and turning out invalids, cranks, and book-full block heads ignorantly read, simply for the want of a well-balanced curriculum of instruction according an appropriate place to physical education.

Dr. J. Lafferty, of Calgary, Alberta, writes that they have to have a system of Medical inspection of school children before long. In new provinces a great deal may be done. It would pay this province to have a staff of medical men paid by the Education Department travelling about the same as school inspectors and under the supervision of a medical head reporting to the Provincial Board of Health, giving lectures and instructions in Hygiene in the different districts and inspecting the school children. I feel convinced that the Government would more than recoup itself from the amount of unproductive expenditure at the present time.

Appended is a list of references, etc.

I might add that in Vancouver we are better off than other places in B. C.

We have in the way of practical training:

Dr. Georgina Urquhart, Medical Inspector,  
Miss Elizabeth Berry, Teacher of Domestic Science,  
G. P. Hicks, Supervisor of Music,  
A. C. Bundy, Instructor and Supervisor of Drill.

Manual Training Schools under the supervision of S. Northrop.

But the training is desultory and not correlated. In order to produce results there must be more system. Our teachers must take a more active part. It is impossible for one medical inspector to properly perform the duties for 8,000 children.

It is impossible for one teacher of Domestic Science to teach more than a very few of the vast number who should be benefited.

Our teachers themselves must have a better training in order to teach those whom they would teach.

There are a great many items that I would like to have dilated on, but perhaps it would not be within the scope of a report as this. I trust, however, sufficient has been said to make us all realize the importance of having the subject of Hygiene taught in a practicable and sensible way in our public schools.

#### REFERENCES

"Report to the Provincial Board of Health," by Dr. J. C. Fagan, and other papers.

"The Teaching of Hygiene in Schools," by Miss T. M. Jones, Senior Head Mistress, Liverpool Special Schools.

"The Health of School Children and its Relation to the Prosperity of the State," by Carstairs C. Douglas, M.D., F.R.S., Educ. of Glasgow.

"Some Physical Defects in Children and their Effect upon Development," by Franklin W. Bock, M.D., Rochester, N. Y.

"The Medical Inspection of School Children" and other papers by Charles A. Hodgetts, M.D., L.P., C.P., London. Secretary Provincial Board of Health of Ontario.

"Reports, Forms, et., Relating to Medical Inspection of School Children in Tasmania School. Hygiene. What Tasmania is doing," by Gertrude Halley.

"School Hygiene," by J. S. C. Elkington, M.D., D.P.H., Chief Health Officer and Permanent Head of the Department of Public Health of Tasmania.

Bryce, P. H., Chief Medical Officer of the Department of the Interior of Canada.

- Dr. J. E. Laberge, M.H.O., Montreal.
- Dr. Wm. Tounsend Porter, St. Louis, "On the Influence of School Life in Producing the Neuroses of Childhood."
- Report of committee to investigate the teaching of Hygiene in Public Schools. Dr. Helen C. Putman, Chairman.
- Compilation of Standing Laws .....April 1904
- Study of Laws and Study of Textbooks.....June 1905
- Report of Hygiene taught in Domestic Science and in Nature Study .....April 1906
- Report of Hygiene taught in Physical Training and in Medical Inspection .....(not published yet).
- Dr. Knight of Kingston on School Hygiene.
- Writings by Dr. Frank Allport of Chicago.
- Proceedings at a Conference on Compulsory Medical Inspection of Schools and Teaching of Hygiene in Schools held in Manchester, 1906.
- An address by Sir Lauder Brunton, M.D., F.O.C., F.R.S., L.J.D., etc.
- "The Medical Inspection and Examination of School Children in New York," by S. Josephine Baker, M.D.
- Bulletins issued by Department of Health, Chicago, by W. A. A. Evans, M.D., Commissioner.
- Working Plan of the System of Medical Inspection and Examination of School Children in the City of New York. By Thomas Darlington, M.D., Commissioner.
- "Reports of School Inspection in the City of Boston" (carried on since 1804). By Thomas F. Harrington, Director of School Hygiene in Boston Public Schools.
- Report of Dr. Georgina L. Urquhart on Medical Inspection of Vancouver Schools.
- Physical Training as a Reformatory Agent, by Dr. Helen C. Putman.
- The proper teaching of Physiology in the Public Schools as a means of preventing intemperance and venereal diseases, by Dr. Lancy Rochester.
- The amount of work a growing brain should undertake, by J. L. Taylor.
- The importance of training the special senses in the education of youth, by T. C. Ely.
- How education fails, by J. Y. Learcy.
- The training of speech as a factor in mental development, by G. Hudson-Makuen.
- Care of the eyes during school life, by Edward Jackson.
- The advantage of Physical Education as a prevention of disease.
- School Hygiene and Medical Inspection of Schools, by W. M. Carhart.
- Consumption, its causes, treatment, and prevention, by F. Montizambert, M.D., Director General of Public Health of Canada.
- Report of Dr. E. Lazell Anderson on South Vancouver Schools.
- Reports of 1st and 2nd International Congress on School Hygiene. Held in London, 1905-1907.

Laws concerning the teaching of Hygiene—Medical Inspection of Schools.

Vancouver, B. C., March 29th, 1908.

To the Editor,—I am preparing, for the British Columbia Medical Association, an article on the laws concerning the teaching of hygiene and also one on Medical Inspection of School Children. Would you kindly inform me what recent articles have been published on the subject?  
W. D. Brydone-Jack.

Fagan, J. C.: Hygiene in Public Schools, Canada Lancet, Toronto, March, 1907.

Durgin S. H.: School Hygiene, Boston Med. and Surg. Journal, May 23rd, 1907, abstr. in the Journal, April 6, 1907, p. 1205.

Report of Committee on Teaching of Hygiene in Public Schools, Bull. Am. Acad. Med., April, 1906.

Lewis, Denslow: The New Hygiene Chairman's address, Section on Hygiene and Sanitary Science, A.M.A., The Journal, June 16, 1906.

Kenwood, R. H.: Hygiene as a School Subject in Elementary Schools. Lancet, October 12, 1907.

Teaching of Hygiene and Temperance in British Elementary Schools (foreign news note). The Journal, Dec. 15, 1906, p. 2021.

Sommerville, D.: Education in Hygiene for Teachers, Lancet, Oct. 12, 1907, abstr. in The Journal Nov. 9, 1907, p. 1635.

Newton, R. C.: What should be the Attitude of the Profession towards the Hygiene of School Life? The Journal Aug. 24, 1907.

Gulick, L. H.: Department of School Hygiene, Boston Med. and Surg. Journal, July 25, 1907.

Williams, Lindsay R.: A Plea for the Physical Examination of All School Children, The Journal, Nov. 16, 1907.

Black, M.: The Physician in the Public School, Colorado Med., Sept. 1907.

Tornell, M. G.: Medical Supervision of Secondary Schools in Sweden. Med. Press and Circular, Sept. 25, 1907; abstr. in The Journal, Oct. 26, 1907, p. 1479.

Loring, L. G.: Examination of Eyes of Four Hundred and Twenty School Children. Boston Med. and Surg. Journ., Dec 13, 1906. Abstr. in The Journal Jan. 5, 1907, p. 79.

McMahon, P. J.: Necessity for Annual Systematic Examination of School Children's Eyes, Noses, Ears and Throats by School Teachers. Wisconsin Med. Jour., Dec. 1907.

Lovett, R. W.: Medical Inspection of Schools. Boston Med. and Surg. Journal, Feb. 21, 1907.

Barkhurst, S. O.: Medical Inspection of Schools as a Factor in Prevention of Disease. Ohio State Med. Jour., Feb. 15, 1907.

Heimmuller, G. H.: Medical Inspection of Schools, Washington Med. Ann., March 1907.

Wyche, G.: Inspection of School Children, with Special Reference to Ear, Nose and Throat. St. Louis Med. Rev., May 4, 1907.

Newmayer, S. W.: Practical System of Medical Inspection with Trained Nurses Adapted for Public Schools of Large Cities. New York Med. Jour., April 4, 1908. Abstr. in The Journal, April 18, 1908; p. 1303.

The Teaching of Hygiene in America, by Dr. Helen C. Putman. Board of Education, London, England. The Education Act, 1907. Administrative Provisions.

Mentally Defected Children, their treatment and training, by G. E. Shuttleworth, M.D., B.A., London.

The Medical Inspection of School Children, by K. Leslie MacKenzie, M.A., M.D., etc., Medical Inspector to the Local Government Board for Scotland.

The Children of the Nation, by Sir John E. Gorst.

Instruction in the Physiology and Hygiene of Sex, by American Society of Sanitary and Moral Prophylaxis, New York.

Report on the Indian Schools of Manitoba and the North West Territories, by P. H. Bryce, M.A., M.D., Chief Medical Officer, Department of Indian Affairs of Canada.

Address on Child Nature and Education, by W. Hoskyns-Abraham, M.A., Manchester, 1907.

Man and Abnormal Man, by Arthur MacDonal, Washington.

The Doctor in the Schools, by Hackworth Stuart, M.D., F.R.C.S.E., D.P.H., Medical Officer to Hanley Education Committee, England.

Report on the Second International Congress of School Hygiene held in London, 1907.

Memorandum on Medical Inspection of School Children in Public Elementary Schools, under Section 13 of the Education (Administration Provisions) Act, 1907, London.

Hygiene in Public Schools. Bulletin of the American Academy of Medicine, June, 1907.

Studies of the Present Teaching of Hygiene through Domestic Science and through Nature Study. American Academy of Medicine.

Hygiene in Public Schools. Bulletin of American Academy of Medicine, April 1904.

Instruction in the Physiology and Hygiene of Sex; Its Practicability as demonstrated in several Public Schools. By Dr. Helen C. Putman.

The New Hygiene, by Dr. Denslow Lewis, Chicago.

The Penalty of Defective Vision and Hearing in School Children with a plan for its relief, by Frank Allport, M.D., L.L.D., Chicago.

A Plea for the Physical Examination of all School Children, by Lindley R. Williams, A.M., M.D., New York.

Report of the Education Committee of the London County Council submitting the report of the Medical Officer (Education) for the year ended 31st March, 1907.

Report of the Education Committee of the London County Council submitting the report of the Medical Officer Education for the year ended 31st March, 1906.

What should be the attitude of the Profession towards the Hygiene of School Life, by Richard Cole Newton, M.D., Montclair, New York.

Biologists in Public Schools, and aid to Morals and Prosperity, by Dr. Helen C. Putman.

The necessity for the annual systematic examination of School Children's Eyes, Ears, Noses and Throats, by Dr. Frank Allport, Chicago.

Laws Concerning Teaching Hygiene, by Dr. Helen C. Putman.

Medical Science and School Hygiene, by W. Ryer, Lancet, London.

NOTES ON TWO CASES OF ABDOMINAL PREGNANCY  
WITH REMARKS ON TREATMENT  
OF PLACENTA

BY

GEORGE VERNON LOCKETT, M.B., F.R.C.S.  
VANCOUVER, B.C.

Case I. Subperitoneo-abdominal pregnancy with dead fetus and past full term.

The patient, a negress, age 39, a multipara, was sent to hospital with a diagnosis of ascites. She had considered herself pregnant. The dates of first cessation of menses and of cessation of movements were so unreliable as to make their record of no value. Examination revealed a smooth uniform distension of the abdominal wall simulating advanced ascites. Paracentesis relieved her of a large quantity of brown turbid sticky fluid and revealed the outlines of the fetus. A median incision opened up a large space in which a macerated fetus lay. The placenta was separate, globular, thrombised, about the size of a grape fruit. It lay in the right inguinal region. From one part sprang the umbilical cord and from a point opposite it was attached to the right side of the pelvic floor by a thrombosed pedicle as thick as two fingers. The fetus and placenta were removed bloodlessly. The large cavity cleaned as far as possible.

She was up in a week. The cavity occupied by fetus and placenta was syringed several times daily with weak antiseptic lotions. Her progress was uneventful till the fifth week after operation, when she died after three days' illness from acute general peritonitis.

Autopsy. A retro-peritoneal abscess in splenic region had burst into the peritoneal sac and given rise to peritonitis. The cavity in which the fetus had developed was extra peritoneal, it was bounded in front by the anterior abdominal wall from pubes to costal margin and laterally from flank to flank, and behind by the greatly thickened parietal peritoneum of the anterior abdominal wall. The fundus of the bladder lay in

the cavity devoid of peritoneum. The adnexa on the right side were matted into the posterior boundary of the sac. The uterus had the peritoneum stripped from its anterior surface and the adnexa on the left side could be recognized and formed with peritoneum part of the boundary of the space on its posterior aspect.

**Remarks.** The fetus was full term. The ossific centre in lower epiphysis of femur was demonstrable. The pregnancy had started probably in the right tube, rupture took place downward and between the folds of the broad ligament, the fetus survived and further evolution had continued extra-peritoneal. False labour had occurred, the fetus died and the circulation at time of operation had entirely ceased and thrombosis was general and complete. The space in which the fetus lay showed no signs of obliteration.

The selection of time for operation in a case of abdominal pregnancy may call for a nice judgment. Nature sets aside two months for the complete occlusion of the placental circulation by thrombosis. At an earlier period surgical interference may result in pulmonary embolism. If the state of the circulation were the only factor to be taken into consideration, there would arise no difficulty. Infection of the sac from the intestinal canal may call for earlier intervention and this at a time before the thrombosis of the placental circulation is complete. To the danger of haemorrhage from removal of the placenta is added the certainty of septicaemia or pyaemia. The absorption of the amniotic fluid exposes the intestinal canal of the mother to the pressure of the fetal hard parts, and so obstruction, and here again may be a reason for interference at a date earlier than the surgeon would select. Granted, however, that suppuration of the sac and that intestinal obstruction do not occur the time for operation would be about six to eight weeks after the death of the fetus.

**Case II.** Abdominal Pregnancy at full term with living child.

Mrs. P., age 34, Scotch, married at age of 18 years.

First pregnancy, aged 19 years, child now alive.

Second pregnancy, ended in an abortion.

Third pregnancy, aged 21 years, child now alive.



Fourth pregnancy, aged 23 years, child now alive.

Fifth pregnancy, aged 28, child now alive.

Sixth pregnancy, aged 32, is the case here recorded.

The fifth pregnancy terminated rapidly and easily and before the lady had time to disrobe. She was up on the 9th day following the labour and suffered in no way whatever. She has never had leucorrhoea or any pelvic complaint and up to this time had never had a doctor except at her confinements. In February, 1906, she did not menstruate. This was followed by morning sickness and she considered herself pregnant. During February and March, after exertion, she had a bloody discharge from the vagina with pains in the hypogastrium. In April she had an attack of severe pain in the abdomen followed by haemorrhage from the vagina. The doctor called in diagnosed threatened abortion and she spent the next three weeks in bed. She remained well until August 26th, when she was again taken in with severe pain in the abdomen but no discharge, and spent a week in bed. A week after had another attack of severe pain in the abdomen and a diagnosis of post-placental haemorrhage was made.

On August 30th was seen by a second doctor, who found her with a temperature of 102 F., pain and tenderness over a swelling in the region of the appendix. This swelling was separate and distinct from the pregnancy which was as large as a six months'. Diagnosis made of appendicitis during pregnancy. She made a recovery but thereafter suffered pain and discomfort on every movement of the fetus and gradually but steadily lost flesh and strength. After three months of suffering labour began. The nurse examined her and said the child would be born by morning. The doctor also examined and gave a satisfactory report, but the next day after a consultation the true state of affairs was diagnosed. On December 1st I saw her for the first time. A little woman, thin and haggard, very much under weight and in constant pain from the fetal movements. The child's head was deep in the pelvis and occupied the posterior fornix. The cervix was high up and against the pubic bone and well above the lowest part of the child's head. A sound passed  $4\frac{1}{2}$  inches into the uterus and the fundus could be felt above the pubes.

The child was alive and almost visible through the abdominal wall and lay in dorso-anterior position. There was a loud placental bruit over the three lower abdominal regions, but loudest in the right inguinal region.

**Operation.** The operation was done in the patient's bedroom and with the utmost speed. A six inch median incision opened into the peritoneal sac and revealed chronic peritonitis with free fluid and numerous soft adhesions of omentum and small intestine to the sac in which the fetus lay.

The sac containing the child was free from the anterior and posterior abdominal walls but was attached to and seemed to form a part of the pelvic floor. On incising the sac, which contained what appeared to be a normal amount of amniotic fluid, the child was rapidly extracted by its feet, a pair of forceps placed on the cord which was severed between. My able assistant, Dr. Broustorph, then started intravenous transfusion of saline, the patient's condition being so poor. The placenta was spread out on the lower and posterior part of the sac with its large ominous looking vessels. Sac and placenta were adherent to the right iliac fossa, anterior aspect of sacrum and left iliac fossa I was able to place a ligature round the lateral portions of the placenta in each iliac fossa. While examining to see if it were possible to do anything else, a most furious haemorrhage occurred and almost instantly the pelvis was full of blood. Taking several yards of gauze in the left hand, with the right I tore out sac and placenta and then plugged the entire pelvis with gauze. I dare not remove it. So an opening was made in the posterior vaginal fornix and a loop of gauze drawn through into the vagina. One continuous through and through chronic gut suture closed the abdominal wound and we were relieved to find the patient was alive. The intravenous transfusion was continued till some semblance of a pulse could be felt.

During the day the patient collapsed and rallied several times. On the second day after the operation the gauze pelvic plug was removed by the vagina. There was palpable fluid in the peritoneal sac and as there was no drainage by vagina, I opened the lower inch of the abdominal wound and gave exit to a large quantity of blood-stained fluid; on the third

day a decidual cast was removed from vagina. For the two weeks following the patient was in a desperate condition, the pulse never going below 180 a minute. Collapses and rallies occurred daily. The temperature never went above 102 F. On the fifth day the odor of necrosis informed us that the cast and placenta had not been totally removed. Iodoform emulsion was then used twice daily and run into the abdominal wound till the abdomen was full. This, with syringing, occupied the next two weeks. Only small shreds of the two silk ligatures that had tied the lateral portions of the placenta came away. During the lateral portion of her convalescence her father died suddenly and later she was buried in the ruins of her house from an earthquake. Still she survived these troubles. The sinus in the abdominal wall was closed in four months. Twenty months later she is quite well and weighs more than she ever did. Menstruation is now regular and painless. The child weighed 7½ lbs. at birth and is now 20 months old. His parents consider him in every way a normal child. There is some slight asymmetry about the head.

**Remarks.** Some of the complications that attend the course of an ectopic gestation were well demonstrated here. There was the chronic peritonitis and adhesions. There was an attack of appendicitis. I had no time to observe the condition of the appendix. There was no marked mental aberration in this case. The chronic peritonitis and pain naturally produced depression, peevishness and irritability of temper.

In an abdominal pregnancy with a living child, the selection of time for operation should be as soon as a diagnosis is made. Here the diagnosis was not made until the ninth month. In the interests of the child operation is called for before the onset of false labour. On account, however, of the imperfect formation of the placenta in ectopic pregnancy, these children seldom survive. In 77 cases of ectopic pregnancies in which a living fetus was removed only 8 were alive at the end of a year and it is doubtful whether more than 5% ever reach maturity. These figures in mind, it would, therefore, be best in the interests of the mother to operate at any stage in the pregnancy so soon as a diagnosis has been made.

In the interests of the mother, which are here of greater

importance, early operation is necessary. The danger to the mother of allowing the pregnancy to continue and operating after the death of the fetus are as great as in the primary and complete operation. The difficulty in the primary operation is the treatment of the placenta. When the placenta cannot be removed or has not been removed, the dangers of septic infection of the placenta and uncontrollable secondary haemorrhage are as great as the danger of haemorrhage and shock when removed at the first sitting. The danger of septic infection of the placenta left is practically certain. If it has been possible to marsupialise the sac, the danger may be less than when the procedure has not been possible. The danger of secondary haemorrhage from the placenta left behind is great, and it would be an awkward problem to face especially if the patient were not in a hospital or the doctor on the front step of her house. The placenta should be removed at the primary operation whenever possible. Its implantation may be anywhere in the abdominal cavity and there are situations where it is impossible to remove it without fatal shock.

---

### PUERPERAL NEURITIS

BY

W. L. COULTHARD, M.B. (Toronto)

VANCOUVER, B.C.

The rarity of puerperal neuritis and the brief mention of it by the works on obstetrics and nervous diseases is sufficient cause to interest us in any report of this little understood disease. Gowers, in his exhaustive work covering nearly every thing, in his classification of neuritis makes little mention of the puerperal state as a cause of this complaint. Oppenheim in his work mentions it and briefly sums up the more salient points in connection with it. According to Turney in the St. Thomas Hospital Reports of 1896, Seridey has collected 6 cases of any kind of paralysis in 8,000 confinements, and he still further adds that in over 2,000 cases in St. Thomas Hospital no case had been reported in some years.

Since 1887 there have been a number of cases published from time to time. At this date, for the first recognition of puerperal neuritis we are indebted to Moebius, who reported a series of cases in the *Münchener Medicinische Wochenschrift*. And while a number of others appear in the literature about this time and shortly after, they were not exhaustive enough, and the data produced do not warrant us in ascribing the complaint to puerperal neuritis. Moebius fully describes seven cases and concludes that the causative factor is some toxic principle in the blood,—an auto-intoxication.

To-day the generally accepted causation is the same as established by him.

In 1895 Eulenberg published 4 cases and reviews all cases to this time.

In the St. Thomas Hospital Reports for 1896, Turney adds three more cases, and exhaustively deals with the subject. Schüller in the *Wienna Klinische Wochenschrift*, in 1906, reports a case of puerperal poly-neuritis. Hauch, in the same year publishes observations in three different journals on puerperal neuritis localized in the lumbar region. Edgar in his "Practice of Obstetrics," published in 1905, fairly well covers the ground in summing up the more important points of the disease. He refers especially to its toxic nature, and says it is usually associated with the previous neurotic history and with excessive vomiting in pregnancy.

That there exists a neuritis occurring during the puerperium and after the causative factor produced by, or peculiar to, this period, is an established fact. All other known causes have been eliminated, as in these cases about to be discussed. The disease may be classified as,

1. A generalized neuritis.
2. A localized poly-neuritis.
3. A neuritis affecting a single nerve.

In a generalized form the neuritis occurs from five months before to some months after confinement, the first symptoms being that of an infective process, a slight rise in temperature, pain down the limbs, of a shooting character, followed shortly by loss of muscular power and complete paralysis. There is wasting of the muscles and loss of electrical reaction, and

according to Turney, the brunt of the disease falls most heavily on the lower extremities, the anterior tibial and peroneal groups of muscles, being most often implicated, and after these the quadriceps extensor group. The upper extremities following with affection of the parts supplied by the posterior interosseous nerve. It is difficult to differentiate clinically between this form and that of alcoholic neuritis. It is in the generalized form that excessive vomiting in pregnancy has been noticed, which may be so severe as to require an abortion to save the patient. In nearly all cases recovery was almost complete, though in many instances from one to two years elapsed before full recovery, and in others there was permanent paralysis of certain groups of muscles, and contractures as are found in alcoholic neuritis, which require appropriate treatment. In this form most observers note that there are mental symptoms in many cases, varying from a highly emotional to an acute maniacal state. Although this is not the rule, still in nearly all there are certain mental symptoms to be found, such as loss of memory, confused ideas, and inability to concentrate the mind.

**The localized Type.** All the symptoms noticed in the generalized form are present here, the only difference being that of location. There is pain of a shooting character, weakness of the muscles gradually leading to a paralysis of the group affected and in nearly all instances a gradual recovery. The localized form nearly always attacks the upper or lower extremities. Hauch, under this classification, in the Bulletin of the Society of Obstetrics, published in Paris in 1906, and since, has described a form attacking the lumbar muscles exclusively.

The third form is that of the single nerve type of the disease.

It was rarely heard of up to the year 1900. Edgar in his work states that it is more frequently noted now, and points out that the median and ulnar nerves are specially liable to the affection.

Mobius reported four cases. Turney in his three cases reports one of this type, in which the ulnar nerve was alone implicated. The chief difficulty in the single nerve form is

in eliminating traumatism as a factor in causation. In nearly all these single nerve reports there were prolonged and tedious labors, and some doubt exists as to the cause of the neuritis. One of my two cases falls under this classification.

Mrs. C., age 26, had always enjoyed good health and was not of a neurotic temperament. Her family history is negative, no neurotic tendencies of any kind being found here. She is a pianiste and while the arms were used more than those of an average woman, with rare exceptions she did not play for two or three months previous to noticing the nerve affection. At the end of the eighth month of her first pregnancy she notices a numbness of both arms on the radial side only, associated with marked tenderness of the muscles and nerves, shortly followed by severe lancinating pain, which was fairly constant, interfering with sleep. The right arm was much worse than the left. There was loss of sensation, not being able to feel anything, and unless deep, sticking with a pin caused no sensation. She could not hold a cup, and on more than one occasion dropped articles which she was trying to hold. The severe pain lasted until the birth of the child, after which it almost disappeared. The weakness and paralysis of the left arm soon cleared up. The thumb and index finger of the right hand became weaker until they were completely paralysed, which continued for a period of two months. The pain and paralysis were distributed along the course of the median nerve. Marked wasting of the muscles of hypothenar eminence was present. There was a loss of power to sustain the arch of the hand in the position of stretching an octave on the piano. There was also weakness of the long muscles of the thumb, the flexor longus pollicis, extensor ossis metacarpi pollicis, extensor primi internodii pollicis, and extensor secundus internodii pollicis, which indicates some affection of the posterior interosseous nerve, a branch of the musculo spiral, although at no time was there complete paralysis of this group. The electrical reactions were lost in the abductor pollicis, flexor brevis pollicis, the adductor pollicis and the apponens pollicis. This continued until about eight weeks after confinement, when gradual recovery was noticed in the

first three muscles mentioned. most marked in the adductor pollicis. The opponens would not react until three months afterwards, when it also gradually returned, and to-day all the muscles are under control although the thumb is slightly weak when the patient is fatigued. The treatment consisted of massage and electricity daily, and when voluntary motion was noticed later, combined with active exercises of the muscles of the arm and thumb. In this case all causes other than those associated with the puerperal state can be excluded, and the theory of auto-intoxication seems to be the only tenable one.

For the second case I am indebted to Dr. Boyle for permission to follow the history and collect the data for this report.

Mrs. B., age 38, is the mother of four children. Her family history shows no neurotic tendencies. A few days after confinement four years ago, she suffered with severe pain down the front of the right leg, particularly in the region of the great toe and the inner side of the foot. She could not touch the sole of the foot or the inner side of the bed and shortly after lost power of extending the great toe entirely, while flexion was also weak. There was tenderness in the other toes also, but while weak, both extension and flexion were possible. The great toe was completely paralysed for some months, recovering completely in about one year's time. I confined her on July 10th, 1907, at the request of Dr. Boyle, who was unavoidably absent at the time. She had a tedious labor and was delivered with the aid of instruments, everything apparently being normal.

Two days after confinement she noticed a dull aching and occasionally shooting pain in the anterior tibial region of the right leg, severe enough to interfere with sleep for three or four weeks. There was absolute paralysis of the foot in extension. Flexion was possible but weak. Pain was marked on the inner side of the foot and about the great toe, which continued for some weeks. There was pain up the thigh at times as far as the hip, frequently very severe. There was loss of sensation to heat, she being unable to put the sound foot into a bath of hot water when it was not felt by



the affected one. There was inability to walk or bear weight on the right foot until the end of September 1907, and only then could she bear slight pressure as it was very weak, the muscles of the leg being much wasted. At present there is inability to extend the great toe and the ankle is weak in extension, but the limb is to all intents and purposes useful. The points of interest in this case lie in the groups of muscles attached—the anterior tibial and peroneal muscles, which are especially mentioned by Turney in the St. Thomas Hospital Reports for 1896 as being the groups affected in the lower limb type. Other features in the case were the absence of vomiting during pregnancy and the absence of any neurotic tendencies in the family and personal history, which Edgar says is present in these cases. It is also of interest to note that this neuritis is a recurrence, as the same existed in a lesser degree four years ago, following pregnancy. I regret I was unable to obtain electrical reactions here.

Since the time of Mobius in 1887 the aetiology of this disease has not been changed. Although the term auto-intoxication covers a wide field, it seems only reasonable to suppose that toxic substance in the blood produced by the puerperium is the cause. It is strange but true that in this, normally, physiological state, we have such far-reaching effects, the specific toxic principal being still unknown. A number of investigators have proved that the toxic substances of the urine are greatly increased during pregnancy, and while the urine was normal by the usual tests in these cases, it is probable that in the puerperium the secreting organs do not eliminate all the toxic principals, with the result of auto-intoxication.

There are many diseases caused in pregnancy by this excessive toxicity, but why neuritis is not clearly shown. It is fortunate that the prognosis is good in nearly all cases of poly-neuritis. In only a few of the cases reported was there any tendency to recurrence in a subsequent pregnancy.

The treatment consists of a careful regulation of all secretory functions, with particular attention to the kidney. Symptomatic treatment till the pain has passed, and the prevention of contractures, and the application of massage and

electricity after the acute period, the galvanic current being used at first, supplanted thereafter by the faradic and continued until full recovery. Persistent treatment will have to be followed in the case of contractures, everything else failing, tentomy may assist in restoring the part to usefulness.

THE PREVENTION AND TREATMENT OF THREE  
COMMON DISEASES OF CHILDREN

BY

HAROLD DYER, M.R.C.P., (Lon.,) F.R.C.S., Edin.

VANCOUVER, B.C.

In my paper I have put the two sections on treatment before the one on prevention, following the marriage feasts of Canaan, where the good wine was served up before the bad.

The first two sections are a summary of the knowledge gained when working as a resident under the leading children's Specialists in England and will be doubtless be more appreciated by the present audience than the third, which is chiefly the home-made product of my own observation and reasoning.

I. RHEUMATISM IN CHILDREN.

Children are extremely susceptible to the attacks of the Rheumatic Diplococcus.

In the O. P. Department of a Children's Hospital the various symptoms which Rheumatism may give rise to in children is one of the first lessons to be learned. On questioning the parents of the bad heart cases, a long history of obscure Rheumatic symptoms is always given, which have been neglected till examination at the Hospital reveals advanced heart disease.

Rheumatism in Vancouver is, at present, not such a fashionable disease as Tuberculosis or Milk Poisoning, but its annual toll of death and misery is a very heavy one as shown by the number of Cardiac death certificates under 30 years.

Broadbent's nurse, after twenty years' work with him, once said to me, "The inheritance of a child with a Rheumatic

family history is more terrible than one with a Tubercular family history," and I have never seen any reason to contradict this.

With the adoption of Medical inspection of school children Cheadle's teachings on "the Rheumatic State in Children" have come again to the front and the early signs of Rheumatism are now more carefully sought for.

I give a list of symptoms, naming the last two as being most often overlooked and if neglected of the gravest prognosis for the future active life of the child, and of all children let the emotional, attractive, red-haired child be most carefully inspected:—

1. Frequent sore throats.
2. Aching of the limbs often called "growing pains."
3. Erythema and Purpura.
4. Chorea.
5. Typical joint pains and stiff necks.
6. Fibrous nodules, more common in England than in this country, and when numerous, a very bad sign.
7. Pericarditis, Endocarditis and Pleurisy.
8. Slight continued pyrexia with persistently rapid pulse and progressive anaemia.
9. Accompanied by a most important sign—dilated heart.

When the first alteration in the sounds or rhythm of the heart is heard, the mischief is done. Whoop-ta-ta replaced lubdub and signifies that the mitral valve is involved. The second sound, the click, is due to the rigid stiffened mitral valve opening less easily and consequently later than the closure of the aortic and pulmonary valves.

Treatment: Salicylates of Soda with alkalies are now given almost universally in the London Hospital for all these conditions including Chorea (as urged by Lees years ago). Very large doses with many precautions are necessary for the best results with large doses of alkalies and purgation.

Rest in bed with any of the last five symptoms is imperative, if the damage to the heart muscle is to be minimized.

And lastly, an icebag over the heart is of very great value when the last two symptoms are present, if used in the way described by D. B. Lees.

I have seen so many cases of Chorea treated by Salicylate of Soda and alkalis in Hospital wards and compared the rapidity of their recovery and absence of heart complications with those treated by Arsenic or simple rest that I am confident that it is the best line of treatment.

#### PNEUMONIA AND BRONCHO-PNEUMONIA.

**Treatment:** The extreme application of the open air method was in use last winter.

A cot under an open window with snow drifting across the blankets seems to be the chosen spot for the Pneumonia child in the hospital as opposed to the damp sultry steam tent of private life.

By comparing the results and the comfort of children in three similar wards and under the same conditions of ideal nursing, hygiene, etc., I found that the icebag was much superior to any other local application (hot or cold) in Pneumonia, even for infants.

Many precautions are needed for their use for infants and good nursing is essential. One who knows no more, or if possible less than the physician, should be left in charge, as it is important that his instructions are carried out exactly and without any improvement in his absence.

In discussing the treatment of Pneumonia, I wish to emphasize the importance of one point which is often altogether ignored among the multitude of remedies recommended, such as heart tonics, expectorants, anti-pneumonia serums, oxygen inhalations, saline infusions, hypnotics, etc. To lead up to the importance of this much neglected remedy, I must draw a rough sketch of the physics of the cardio vascular system and lungs in health and in pneumonia or Broncho Pneumonia.

In Pneumonia most of one lung or part of two is solid with inflammatory products pressing on the Pulmonary capillaries and so obliterating a large portion of the capillary area into which the R. Ventricle normally empties itself. In Broncho-Pneumonia the same physical condition occurs, not in one lobe, but in scattered areas all over the lungs, the actual diminution of the pulmonary capillaries being lessened

in varying degree. The tension in R. Ventricle soon rises till it dilates and is not completely empty at each systole. As Foster states, the Right Auricle is used to contracting against a very low pressure in R. Ventricle and when once this is raised it soon dilates and is quite unable to do its work.

Most "Pneumonias" die from paralysis of the right heart following over distension owing to its inability to drive the blood through pulmonary capillaries whose area is diminished by consolidation.

The thin walled Right Auricle suffers most till at last its distended thin muscular walls are unable to contract and initiate the cardiac peristaltic wave which starts in the Sinus Venosus.

The symptoms are increasing dyspnoea cyanosis with great distress and a feeling of suffocation, later, especially in infants, come drowsiness, pallor, cold sweats and death.

Of course other causes will produce the same symptoms from pressure on the air passages, lungs or heart from above or below.

These can be excluded and the distended condition of the Right Heart diagnosed by careful percussion of the deep cardiac dullness.

The accuracy with which this can be done is verified by looking at the cardiac shadow with the X-rays and comparing it with the area mapped out on the chest wall by percussion.

The treatment for a heart almost paralyzed by its own distension is to withdraw some of its contents either by leeches or Venesection.

If the Right Ventricle impulse cannot be felt through all the symptoms of the Right Heart embasement are present and the definite physical sign of cardiac dullness extending far to the right of the sternum is present, it shows that distension is so extreme that the Right Ventricle is giving up the fight and the need for relief all the more urgent though the prognosis is more unfavorable.

On this point Lees is very emphatic and differs from Oertel and from Broadbent who write that a heaving R. Ventricle impulse is the great indication for leeches and implies

that without this heaving impulse bleeding is contra indicated whatever the symptoms.

It is the lessening of intra cardiac tension by *bleeding* that saves life, enabling the stretched cardiac muscle to recover itself and close down on its contents.

That the tension in the venous system is great is shown by the jet of blood which squirts out of a vein in the neck if it is opened.

Immediate relief follows the withdrawal of blood. The P. and R. frequency fall, the pulse increases in volume, cyanosis disappears, the patient generally sleeps in a short time and the area of right cardiac dullness can be found by examination to be much less.

It is well known that Pneumonias which terminate with profuse watery diarrhoea usually recover, surely because nature is reducing the blood pressure in the Venous system.

Venesection is the best method in very urgent cases and in adults, but for children leeches are best, as there is slight pain and they can be applied without the child's knowledge.

Leeches are less sensational, but not coming under the head of an operation, will probably be less popular than venesection.

The argument that a man is too weak to lose so much blood when his most vital organ is paralysed because it is too full of it, is not a sound one. Lees summarises the state of affairs thus:—

"If a patient suffering from distension of the bladder comes under the care of a Medical man, he is at once relieved, but if it be the patient's right heart that is distended, a condition causing equal misery, equally dangerous, equally capable of diagnosis and equally capable of relief, the patient will probably be left to take his chance, because the practitioner's percussion is inadequate and bleeding is out of fashion."

#### THE PREVENTION OF ADENOIDS.

As a result of carefully watching children of all ages asleep in hospitals during my 13 months of residence and with anatomical and physiological facts to support my contention, I venture to urge the regular use of the hard infants

comforter till the child can speak and understand speech.

I know Holt describes a most appalling train of vicious physical and especially moral results from the use of the comforter. Whether these also result from gum chewing and are the cause of its popularity, he does not mention. His statement that it causes deformity of the jaws, I have tried later to disprove.

Keating shows a picture of receding jaw and overhung teeth as a result of thumb sucking which Arbuthnot Lane shows as a typical result of non-development of lower jaw, due to adenoids.

I consider the hard comforter as the most important factor preventing growth of adenoids and enlarged tonsils for the following reasons:—

Nature provided practically all newly born infants with a free nasal air passage since without it sucking is impossible. Soon the inevitable cold comes with swelling and catarrh of the nasal mucus membrane. The infant cannot be told to breathe through the nose, he cannot blow his nose, it is rarely cleaned for him so early in life, the nasal passages become temporarily obstructed and the infant finds it necessary or easier to breathe through his mouth and continues to do so during sleep.

The delicate secreting fossæ in the nose should be constantly ventilated but with the easy alternative route by the mouth, the nasal air shaft is not used. Decomposition of retained secretion follows and sepsis with resulting chronic inflammation of the lymph glands of Luschka's tonsil into which the nasal fossæ drains.

The mucopurulent nasal secretion runs back into the nasopharynx causing pharyngeal catarrh and constant irritation of the tonsillar lymphatic tissue.

In infancy more than in adult life, the law that a disused organ atrophies or fails to develop holds true and with the disuse of the nostrils and small nasal and palatal resp. muscles the nasal passages remain a mere potential canal lined by engorged mucus membrane, there being no adjacent muscular movement to circulate the blood.

With the comforter firmly fixed in the mouth of the in-

fant the condition described is impossible. Instinct seems to urge all infants to keep their mouth shut by biting on something. Their first intelligent movement is to grasp articles and thrust them in their mouths and if nothing is supplied the thumb is used. They will always prefer the extra trouble of using their nose if they can have a teat to keep their mouths shut.

To remove the comforter is to remove the infant's instinctive weapon of self-defence against the threatened onslaught of the Adenoid scraper.

Another important function of the hard comforter is the normal development of the muscles of the tongue, pharynx and lower jaw.

Puppies, kittens and other meat eating animals begin their play by biting every object within range and we encourage them, but strange to say, we as doctors, forbid mothers to allow their young the same exercise, and stranger still, most of them obey us.

With each contraction of the digastric, superior constrictor of pharynx and other muscles especially the External and Internal Pterygoids the circulation in the great Pterygoid Plexus of Veins and Lymphatics draining the area under discussion is accelerated. If the normal driving force of muscular movement is absent, stagnation must occur in the areas draining into these venous plexuses. Bones develop in proportion to the activity of the muscles attached and a jaw with plenty of room for teeth is a good start towards good digestion in later life. For these reasons I consider the early habit to cram things into the mouth is an instinctive effort to aid the development of the jaw and physiological activity of the Naso Pharynx.

Finally, before removing tonsils and adenoids in older children, try cleanliness to the naso-pharynx and teeth as one would before removing enlarged inguinal glands for blinitis.

After removing them and clearing the air passages, the child must be carefully taught to use the nose again, just as after clearing a ditch choked up with weeds, the water must be led back through the ditch and directed from its wrong path or the labor is in vain.

Hoping to gain more knowledge from your discussion of my paper than I can hope to have given you, I must finish with apologies for its length.



## BERI-BERI (Kakka)

BY

W. H. SUTHERLAND, M.D., C.M.

REVELSTOKE, B.C.

**Definition:** An infectious disease, and may be either acute, sub-acute, or chronic. Clinically shown by a disturbance of the circulation, of motion, of sensation and renal secretion. Pathologically by degeneration and hypertrophy of the heart; degeneration of the peripheral nerves, and of voluntary muscles, and of the kidneys.

**Etiology.—Predisposing causes:** The crowding of many individuals in a limited space, and a diet largely composed of rice, certain kinds of raw and infected fish, and bad hygienic surroundings. Some claim it is more frequent in tropical and sub-tropical countries. Moisture and heat seem to favor its development. There is, however, a marked exception to this rule—as it occurs quite frequently in the northernmost part of Japan. It is more prevalent with us during the Autumn and Winter. It is more common in the male than the female and occurs most frequently between the ages of fifteen and thirty. Certain races, as the Japanese, Chinese and Malay, are particularly prone to contract the disease. Americans and Europeans are not very susceptible to it, even when living where the disease is prevalent.

We have admitted cases of it to the general wards of the hospital without any infection among the whites.

**Cause?—**There are numerous theories as to the direct cause, and two Japanese army surgeons claim to have discovered a specific germ in the form of a coccus, or diplococcus, but other investigators are by no means convinced of the specificity of these organisms.

**Pathology:—**The superficial veins contain a large amount of dark fluid blood: the subcutaneous tissue oedematous. This

---

\*Read before B.C. Interior Medical Association, July, 1908.

is most marked in the anterior thoracic region and over the anterior surface of the lower extremities. Fluid in the pericardium, the thorax and abdominal cavity is very commonly met with. The heart shows the most characteristic changes, the muscle is hypertrophied, usually most marked in the right ventricle. The organ is increased in size and weight, the right ventricle is usually dilated with a resulting relative insufficiency of the tri-cuspid valve. The heart usually contains a large amount of dark fluid blood. The muscle may be normal, but frequently shows fatty degeneration.

The Lungs are generally oedematous, congested, and contain little air, occasionally they are emphysematous.

The Kidneys in acute cases are markedly congested, occasionally slight cloudy swelling and fatty degeneration are noticed.

The Liver is generally congested.

Peripheral Nerves:—Rarely any changes can be noticed by the naked eye, but with the microscope the peripheral nerves show marked degeneration, and the muscles supplied by these nerves likewise show degeneration.

Symptoms:—There are three forms of the disease most commonly met with: the acute pernicious, the wet or oedematous, and the dry or atrophic.

The Acute Pernicious: The onset is rapid, usually without promonitory symptoms, a feeling of oppression in the chest, difficulty in breathing with forced respirations; venous congestion; marked vomiting is usually present; pulse becomes rapid and weak, and death supervenes.

The other two forms set in in the same manner, except premonitory symptoms are present for some time; lack of appetite, dull pain in the pit of the stomach (which is the chief symptom complained of among all our cases); there is a sense of heaviness in the lower extremities. The walk is characteristic: they look as though they were lifting their feet out of heavy mud. At this stage, in the wet form, there is marked oedema in the lower legs, the skin being very tense. In the dry form there may be slight oedema, but it is not so well marked; the muscles begin to atrophy and later on contract, with the atrophy is disturbance of sensation, hyperac-

thetia of the lower extremities. The extent of such disturbance of sensation varies in different individuals, and also at different times in the same individual. The knee jerks are at first diminished and later entirely absent. The weakness of the legs is first noticed in the calves and later in the thigh. The muscles become thin and flabby. When contraction is associated with atrophy, the foot assumes an equina-varus position. In severe cases the upper extremities are also affected.

**Heart.**—The Pulse is generally rapid, weak, somewhat irregular and easily-compressible; the rate changes markedly with the least exertion. Heart dullness is increased; the apex heat found generally displaced upwards and outwards, there is generally a marked accentuation of the second pulmonary sound, sometimes a definite systolic murmur to be heard at the apex. In mild cases the urine is decreased in amount, but in severe cases the diminution is great and may be practically nil. The specific gravity is increased and usually there is no albumin.

**Temperature.**—The temperature is usually normal or may be slightly elevated.

In unfavorable cases marked dyspnoea develops, and there is very marked venous congestion, and death is very often due to heart failure.

**Prognosis.**—As a rule is favorable, the death rate being from 2 to 6%, though in some epidemics it has reached as high as 60%.

**Treatment.**—There is no specific treatment, even in the mild attacks the patient should be put to bed as it is important to reduce the heart action as much as possible; put on a light or liquid diet. A large dose of saline laxative should be given, and a diuretic mixture prescribed. One of the most favorable symptoms is an increased secretion of urine. If there is a very marked hyperaesthesia bromide of potassium or morphia internally and chloroform externally are recommended. Vomiting and dyspnoea are greatly relieved by small doses of morphia hypodermically.

The muscular atrophies should receive early and proper treatment. When the oedema has subsided massage and passive movements should be practiced several times a day. As soon as there is no longer danger of cardiac failure moderate active exercises should be begun. Later on the galvanic battery should be applied.

# WESTERN CANADA MEDICAL JOURNAL

---

## EDITORIAL NOTES

---

### *Formation of Manitob Provincial Medical Association*

On Oct. 8th, the Manitoba Medical Men held a Convention in Winnipeg to organize a Manitoba Provincial Medical Association. The inaugural meeting was a great success, a large number attending. Proceedings ended with a banquet at the Royal Alexandra, at which the Winnipeg doctors acted as hosts to their professional brethren from outside points. Dr. J. R. Jones of Winnipeg was elected President unanimously. In his speech at the banquet he congratulated the members on the enthusiasm displayed and thanked the College of Physicians and Surgeons for taking the initiative, the Clinical Society, the Medical Society and the "Western Canada Medical Journal" for co-operation, and very specially he thought thanks were due to Dr. Kenny for the zeal he had shown in so successfully organizing the gathering.

### *Do Our Councils Perform Their Duties?*

The open letter published in this number from a member of the B. C. College of Physicians and Surgeons shows the need of full publicity of the work done at the meetings of the various councils of Physicians and Surgeons of the West if satisfaction is to be given to the general profession. The members of Councils are appointed as representatives—great confidence is placed in them. The only way by which one can judge whether that trust is justified is from published reports of the proceedings at the meetings. Unless this is done, the members of Councils who have conscientiously carried out their duties cannot receive the credit due to them as their

work is not known. All the proceedings of the British Medical Council are fully reported. Matters to be brought up at the next meeting are often known beforehand and lively correspondence in the Medical Press and discussions at their Society meetings take place. In this and other ways the members should know the real opinion of the general profession regarding matters on which they have to finally decide. Ontario also has the Council's proceedings published. Everything is just shaping into order in the West and so doubtless before long full accounts will be published of each Council's work. Manitoba always has published the proceedings since there was an opportunity to do so. We should be glad to hear from any member on the subject. So far we have received no communication giving us reasons against Reciprocity. We trust that all readers are seeing clearly the point that a Western Medical Association would in no way confuse matters by multiplying associations, but simplify, as the Western would be part of the Dominion and the Provinces part of the Western.

Note that the Clergy are petitioning for reciprocal privileges. Are we to be the last in this reform ?

We regret that the report of the Clinical Society cannot appear this month owing to lack of space.

## GENERAL MEDICAL WŞNE

### VITAL STATISTICS

Winnipeg, September—Marriages, 161; Births, 273; Deaths, 136.

Edmonton, August—General health, good; Scarlet fever, 2; Measles, 2; Smallpox, 2.

Regina, September—Births, 21; Marriages, 12; Deaths, 13.

### MEDICAL NEWS

In the "Medical Brief," October, there is a letter from Dr. Dussan, Hato, Republic of Colombia, in which she states that the Government has repealed the Medical Law and that anyone can practice in the Republic. She says there is a great need for at least 20 doctors and 70 dentists in that territory. So far there are only three qualified physicians to a population of 300,000. Medical fees are high, living cheap and all business transactions are done in American gold.

"School Hygiene" (Boston) for September states that the American School Hygiene Association for the coming year intends issuing a monthly bulletin on School Hygiene.

In the American Journal of Public Hygiene, there is a paper on "Vital Statistics" by Dr. Price, which might be read with profit by all in Western Canada. It seems that it is more difficult to get an accurate return of infectious diseases than of births and deaths. The difficulties given as being in the way are (1) Medical Ethics—placing right of patient above that of the community. "A physician is given his license to pursue a dangerous occupation involving the handling of certain dangerous material, to wit infectious diseases, only upon condition that he handles them in a manner conforming to law. The physician who encounters a case of this character has a double duty; first his duty as a private citizen to inform the community of a danger threatening it; second, a special duty imposed upon him by the state when his license is granted of giving special information for the general public welfare."

Improvements are being made in the Moose Jaw General Hospital as its capacity is being taxed to the utmost. The third floor is to be fitted up as a Maternity ward.

There is great need for a new general hospital at Calgary, patients are being refused owing to lack of accommodation. The secretary has been authorized to issue notes and discount the same to the amount of \$69,000.

Dr. Samuel McComb, head of the Emmanuel movement in Boston, has been visiting London. An organization for carrying out his ideas has been established, and London is to have an institution similar to the Boston one.

Dr. Kergin, M.L.A., has been visiting Vancouver and Victoria on business in connection with the enlargement of the Port Simpson Hospital, of which he has charge.

### PERSONALS

Dr. Harry Watson, Winnipeg, has returned from his visit to Boston, Philadelphia and other cities.

Dr. and Mrs. W. Mason of Nanaimo have been visiting Vancouver.

Dr. Fagan of Victoria, Drs. Chown and Douglas of Winnipeg, Dr. Seymour of Regina are attending the Congress on Tuberculosis at Washington.

Dr. Frank Hall, Victoria, has left St. Joseph's Hospital and is much better.

Dr. M. Capps Costello has gone to take a post-graduate course at British Hospitals. He will go first to Dublin and then to the London Hospital, the largest institution of its kind in the world. Later he hopes to visit Edinburgh.

Dr. Robertson, who has been absent for about a year taking post-graduate courses on the Continent, has returned to Wetaskiwin.

Drs. Whitelaw, City Medical Health Officer; Dr. Irving, Provincial Health Officer, and Dr. Revell, Provincial Bacteriologist of Alberta, attended the American Public Health Commission at Winnipeg.

Dr. J. R. Jones, Judge Mathers and Mr. G. R. Crowe of the Winnipeg Hospital Commission, have been visiting various hospital centres on this Continent to obtain information for the Commission.

BORN

KIRK—At Oak River, Sept 21st, the wife of Dr. Kirk of a son.

MARRIED

CAIRNS—HEATH—At the Metropolitan Church, Regina, Sept 16th, Kelso C. Cairns, M.B., of Lumsden, Sask., to Miss Edith Heath.

LEHMANN—HILLERNS—17th Sept. at All Saints', Hessele, by the Bishop of Hull, assisted by the Rev. B. S. Cockin, Rector of Etton, Dr. J. E. Lehmann of Winnipeg, to Ida Louise Elsa, eldest daughter of Mr. and Mrs. Oswald Hillerns of "Oldenburg," Hessele.

ROGER—SHARMAN—At Russel, Sept. 15th, Robert R. Roger, M.D., to Miss Jessie E. Sharman.

CORRESPONDENCE

An Open Letter to the Council of the College of Physicians and Surgeons of British Columbia.

Mr. President and Gentlemen:—

Four years ago I removed to this province and duly passed my examination prescribed by your examiner, and paid the regular fee of \$100, imagining in the simplicity of my heart that this course would be necessary in order to practise my profession for "hire or reward."

Now, I find that men can come in, ignoring your Medical Act, passing no examination, paying no fee, making no ostensible charge, of course, but accepting payment for their services at such figures as may please the parties who have accepted their services.

"Right is right, and wrong is no man's right." Can you justify this infringement of the properly licensed and registered practitioner's rights? I have laid the facts before your Registrar, but learn that our medical legislators have failed to make any provision for such cases. If so, then permit me to say that it is high time some necessary amendments to the Act were passed and put into force. I have proof that there was no excuse of emergency or hurry in the case cited as the practitioner in question made a prior engagement to attend the accouchment.

I have the honor to be, Mr. President and Gentlemen, your obedient servant,

CHAS. M. SMITH, M.B., M.C.P. & S.O.

Summerland, B.C., Aug. 10, 1908.



# GRUBLER'S

## Microscopical Stains and Reagents

Original 1 oz. bottles  
Staining Solution No. 1 and 2 in  
4 oz. bottles.

### SELLING AGENTS

*Chandler & Fisher, Limited*

*Surgical Dealers*

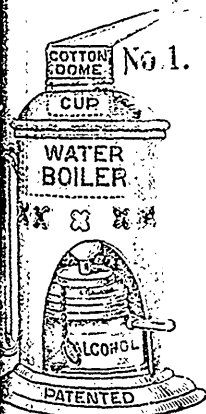
WINNIPEG, MAN.

Made by Dr. G. Grubler & Co., Leipzig.

## Complex Croup Kettles

### "WARM MEDICATED SPRAYS"

They are simple, practical and of convenient utility  
L. Emmett Holt, M.D., New York.



- No. 1, 8 oz. size,  
5x9 \$1.50
- No. 2, 6 oz. size,  
2x5 \$1.00
- No. 3, 16 oz. size,  
9x12 \$2.00
- No. 4, Benzoin  
Inhaler  
75c
- No. 6, Plain  
Benzoin  
50c.

Employed for Lost Voice, Singers' Throats,  
Croup, Laryngitis, Catarrh, Pneumon-  
ia, Tuberculosis, after Adenoid Operations,  
Scarlet Fever, etc. Full directions.

Delivered Prepaid

MAN SONS & CO., MONTREAL



K.G.G. DOUCHE FOR THE APPLICATION OF  
GLYCO-THYMOLINE TO THE NASAL CAVITIES

# GLYCO- THYMOLINE FOR CATARRHAL CONDITIONS

Nasal, Throat  
Intestinal  
Stomach, Rectal  
and Utero-Vaginal

KRESS & OWEN COMPANY

210 FULTON STREET

NEW YORK

## Country Doctors,

can trade with us just as conveniently and just as satisfactory as people in the city. When anything is needed in the line of drug store goods

## Mail Your Orders

Our well-organized MAIL ORDER service will serve you promptly. Goods are always shipped on day order is received, if articles ordered are in city.

Our stock is large and includes about everything druggists sell. Our rapid selling ensures freshness. Low prices are the rule. We guarantee satisfaction.

*The Gordon-Mitchell Drug Co.,  
Winnipeg, Man.*

In the treatment of  
**A S T H M A**

by the inhalation of Nitre  
fumes prescribe

## Asthmoids

Prepared by  
**BARTLE & CO., Chemists,  
Box 323, Detroit, Mich.**

Have your  
**Diplomas Framed**

at  
**RICHARDSON BROS.**  
339 PORTAGE AVE. WINNIPEG, MAN.  
Pictures, Picture Framing, Artists'  
Materials, etc.

## Accurate Dispensing

is ensured by specifying

# HOWARDS'

Quinine Salts  
Calomel  
Bismuth Salts  
Iodides  
Sodii Bicarb

and all Pharmaceutical Chemicals.

All Druggists Stock Them

Stratford, London, England.

## The Western Canada Medical Exchange

\* \* \*

We have some good Practices in  
*Manitoba, Saskatchewan and Alberta*  
for sale.

Write us for *Locum Tenens* and  
*Locations.*

Address Communications to

Room 517 Phone 1759

McIntyre Block,

Winnipeg

**THE PHYSICIAN 'OF MANY YEARS' EXPERIENCE**

**KNOWS THAT, TO OBTAIN IMMEDIATE RESULTS**

**THERE IS NO REMEDY LIKE**

**SYR. HYPOPHOS. CO., FELLOWS.**

**MANY Medical Journals SPECIFICALLY MENTION THIS  
PREPARATION AS BEING OF STERLING WORTH.**

**TRY IT, AND PROVE THESE FACTS.**

**SPECIAL NOTE.**—Fellows' Syrup is never sold in bulk.

*It can be obtained of chemists and pharmacists everywhere.*

**DOCTOR'S  
BRASS SIGNS  
& RUBY GLASS SIGNS  
C. BOOTH & SON  
21 Adelaide St. W., Toronto**

**SAL HEPATICA**

For preparing an  
**EFFERVESCING ARTIFICIAL  
MINERAL WATER**

Superior to the Natural,  
Containing the Tonic, Alterative and  
Laxative Salts of the most celebrated  
Bitter Waters of Europe, fortified by  
the addition of Lithia and Sodium  
Phosphate.

**BRISTOL - MYERS CO.**

277-279 Greene Avenue,  
**BROOKLYN - NEW YORK.**



Write for free  
sample.



## NOTICE

### ODD-NUMBERED SECTIONS

As already publicly announced, odd numbered sections remaining vacant and undisposed of will become available for homestead entry on the coming into force of the Dominion Lands Act on Sept. 1, next.

As the records of only the even numbered sections have hitherto been kept in the books of the various land agencies in the western provinces and the time having been very limited since the passing of the act within which to transfer the records of all odd numbered sections from the head office at Ottawa to the local offices, it is possible that the transfer of records in some cases may not have been absolutely completed by the 1st September. In any case where the record of any quarter section has not been transferred, application will be accepted but will have to be forwarded to head office to be dealt with.

As it has been found impossible as yet to furnish sub-agencies with copies of the records of the odd numbered sections and in view of the large probable demand for entries, all applicants for entry upon odd numbered sections are strongly advised to make their applications in person at the office of the Dominion Lands Agent and not through a Sub Land Agent. Applications for even numbered sections may be dealt with through the Sub-Land Agent as before if desired.

J. W. GREENWAY,

Commissioner of Dominion Lands,  
Winnipeg, August 22, 1908.



## 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 situated. 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.

### DUTIES:

(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) 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.

Six months' notice in writing must be given to the Commissioner of Dominion Lands at Ottawa, of intention to apply for patent.

W. W. CORY,

Deputy of the Minister of the Interior.

N.B.—Unauthorized publication of this advertisement will not be paid for.

# Stearns Concentrated Diphtheric Antitoxin

[Antidiphtheric Globulin Solution]

presents diphtheric antitoxin in its purest state; free from serum albumins, nucleoproteids, nonantitoxic globulins and extractive substances present in the whole serum.

Untoward reactions or by-effects are  
reduced to the minimum when Stearns  
Concentrated Diphtheric Antitoxin is  
used.

Our present plan of marketing serums enables us to supply you with our serums at most reasonable prices.

Interesting literature on how our Diphtheric Antitoxin is prepared, gladly sent on request.

---

---

Frederick Stearns & Co.  
Biologists Windsor, Ont.

The Logical treatment of Pneumonia is timely intervention with an effective biologic agent.

## Pneumolytic Serum

is a composite, polyvalent, antipneumonic serum, prepared by a special process and is radically different from any antipneumococcic serum heretofore offered to the profession.

## Pneumolytic Serum

especially when used in the early stages of the disease

## Dose Give Results

and this claim is based on clinical results in both private and hospital work.

Interesting literature and case reports sent on request.

---

# Frederick Stearns & Co.

Windsor, Ontario

# INGLUVIN

(WARNER & CO.)

HAS STOOD THE CLINICAL TEST OF OVER THIRTY YEARS.

It is a Stomachic Tonic, relieves Indigestion, Flatulence and Dyspepsia.

Can be administered in inflammatory conditions of the mucous membrane, as it has no irritant effect.

Has the remarkable property of arresting certain kinds of vomiting—notably the vomiting of pregnancy—due to a peculiar bitter principle.

Under ordinary circumstances, and when the object of its administration is to promote the digestive function, it should be taken after meals.

When the object is to arrest vomiting of pregnancy, it should be given before meals, in doses of 10 to 20 grains.

It should be combined with prescriptions containing calomel, as it prevents nausea and vomiting.

Put up in Powder and Tablet Form.

SAMPLES AND LITERATURE ON REQUEST.

PREPARED ONLY BY

**WM. R. WARNER & CO.,**

Manufacturing Pharmacutists,

PHILADELPHIA, PA.

Branches: New York, Chicago, New Orleans.

# Bacterial Vaccines

## The Practical Application of the Opsonic Theory.

Recognizing the therapeutic possibilities in the new Opsonic treatment, two years ago we sent one of our research bacteriologists to the laboratories of Sir A. E. Wright (in London) to study at first hand the subject of vaccine production. Since that time we have supplied large quantities of the various bacterial vaccines to clinical experts in this country with a view to determining their value as therapeutic agents, stipulating that the physicians advise us as to the results of their experience. In this way we have collected a mass of information concerning the utility of these products which demonstrates that, in properly selected cases and in competent hands, they yield good and at times brilliant results. (In improper cases, or in incompetent hands, the effects may be negative or even harmful.) Professor Wright believes that the question of Opsonic therapy has reached such a state as to warrant offering bacterial vaccines to the medical profession, and at his request our London house has undertaken to market in Great Britain and on the Continent of Europe the vaccines prepared in his laboratories; to the medical profession of America we will supply similar products from our own laboratories, as noted below:

### Staphylococcus Vaccines

**Albus** (Staphylococcus Pyogenes Albus).

**Aureus** (Staphylococcus Pyogenes Aureus).

**Citrus** (Staphylococcus Pyogenes Citrus).

**Combined** (Staphylococcus Pyogenes Albus, Staphylococcus Pyogenes Aureus, and Staphylococcus Pyogenes Citrus).

These vaccines are applicable in the treatment of furunculosis, suppurating acne and other forms of staphylococcus infection. They are prepared from cultures of various strains of staphylococcus. They are sterilized by heat and are ready for use. Bulbs of 1 Cc., 4 bulbs in a package.

### Gonococcus Vaccine

Applicable in the treatment of the chronic conditions following acute gonorrhoea. Prepared from virulent cultures of gonococcus. Sterilized by heat and ready for use. Bulbs of 1 Cc., 4 bulbs in a package.

### Streptococcus Vaccine

(Streptococcus Pyogenes)

Applicable in the treatment of the localized forms of streptococcus infection. Prepared from cultures of various strains of streptococcus. Sterilized by heat and ready for use. Bulbs of 1 Cc., 4 bulbs in a package.

### TUBERCULIN PRODUCTS

**Purified Tuberculin for the Ophthalmic Reaction.**—Tubes of 10 discs, 1 tab in pkg.

**Tuberculin, B. E. (Concentrated).**—Bulbs of 1 Cc., 1 bulb in a package.

**Tuberculin, B. F. (Bouillon Filtrate).**—Bulbs of 1 Cc., 6 bulbs in a package.

**Tuberculin, T. R. (Concentrated).**—Bulbs of 1 Cc., 1 bulb in a package.

**Tuberculin, T. R. (Dilute).**—Bulbs of 1 Cc., 6 bulbs in a package.

**Tuberculin, Old (Koch's Original Tuberculin).**—Bulbs of ½ Cc., 1 bulb in a pkg.

WRITE FOR DESCRIPTIVE CIRCULAR.

**PARKE, DAVIS & COMPANY**

WALKERVILLE,

ONTARIO