Vol. IV. JANUARY, 1928 No. 4

The Bulletin

of the

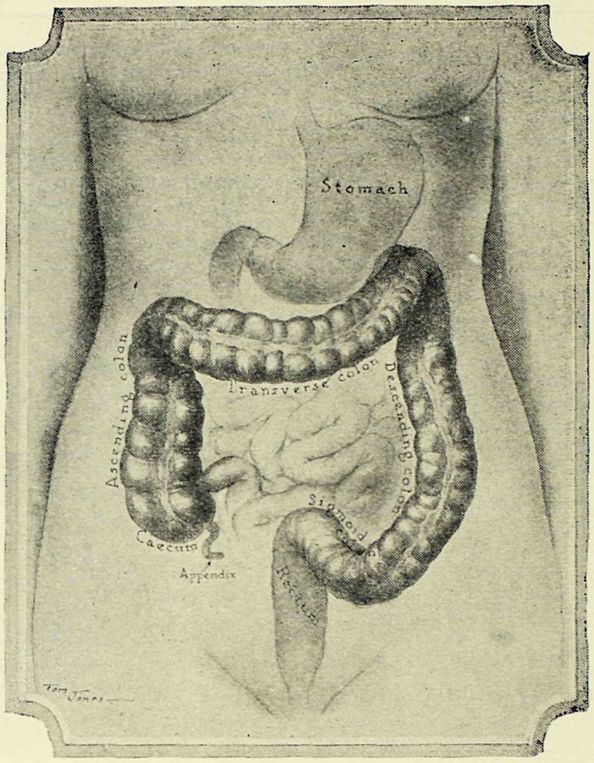
Vancouver Medical Association

Abdominal Tumours

Hollywood Sanitarium

New Books

Published monthly at Vancouver, B. C., by
McBEATH-CAMPBELL LIMITED
Price $1.50 per year



In Diseases of Sigmoid, Rectum and Anus

Where there is irritation or obstruction in the lower bowel, there is need for a soft formed, yielding fecal mass.

Here Petrolagar is invaluable because this emulsion is more than a mere lubricant.

—it permeates the mass, rendering it soft and easily passed.
—it provides comfortable elimination without strain, reducing congestion in the hemorrhoidal veins.
—it allays irritation.

Oral administration may be supplemented with Petrolagar diluted slightly with water given as an enema. It will be found superior to oils as a retention enema.

DESHELL LABORATORIES OF CANADA, LTD.,
245 Carlaw Ave.,
Toronto, Ontario.

Gentlemen: Please send me copy of your new brochure "Habit Time" and specimens of Petrolgar.

Dr. ----------

Address ----------

Deshell Laboratories of Canada Ltd.

245 Carlaw Ave.

TORONTO, ONTARIO

Petrolagar

THE VANCOUVER MEDICAL ASSOCIATION

BULLETIN

Published Monthly under the Auspices of the Vancouver Medical Association in the Interests of the Medical Profession.

Offices:
529-30-31 Birks Building, 718 Granville St., Vancouver, B.C.

Editorial Board:
DR. J. M. PEARSON
DR. J. H. MACDERMOT DR. STANLEY PAULIN

All communications to be addressed to the Editor at the above address.

Volume 4 JANUARY, 1928 No. 4

OFFICERS, 1927 - 28

DR. W. S. TURNBULL
Vice-President

DR. A. B. SCHINBEIN
President

DR. A. W. HUNTER
Past President

DR. G. F. STRONG
Secretary

DR. A. C. FROST
Treasurer

TRUSTEES

DR. W. F. COY DR. W. B. BURNETT DR. J. M. PEARSON

Auditors: MESSERS. PRICE, WATERHOUSE & CO.

SECTIONS

Clinical Section

DR. GORDON BURKE ..... Chairman
DR. L. H. APPLEBY ..... Secretary

Physiological and Pathological Section

DR. J. E. CAMPBELL ..... Chairman
DR. F. J. BULLER ..... Secretary

Eye, Ear, Nose and Throat Section

DR. E. H. SAUNDERS ..... Chairman
DR. W. E. AINLEY ..... Secretary

Genito-Urinary Section

DR. G. S. GORDON ..... Chairman
DR. J. E. CAMPBELL ..... Secretary

Physiotherapy Section

DR. H. R. ROSS ..... Chairman
DR. J. W. WELCH ..... Secretary

STANDING COMMITTEES

Library
DR. C. H. BASTIN
DR. W. C. WALSH
DR. W. A. BAGNALL
DR. D. F. BUSTEED

Orchestra
DR. J. A. SMITH
DR. H. A. BARRETT
DR. L. MACMILLAN
DR. H. C. POWELL

Dinner
DR. D. D. FREEZE
DR. C. H. C. BELL
DR. T. H. LENNIE

Credit Bureau
DR. L. MACMILLAN
DR. J. W. ARBUCKLE
DR. N. MCNEILL

Rep. to B. C. Med. Association
DR. C. H. VROOMAN

Credentials
DR. F. W. LEES
DR. E. J. GRAY
DR. W. F. MCKAY

Summer School
DR. H. R. STORRS
DR. B. D. GILLIES
DR. L. H. APPLEBY
DR. W. T. EWING
DR. J. CHRISTIE
DR. J. T. WALL

Hospitals
DR. H. H. MILBURN
DR. F. C. BRODIE
DR. A. W. HUNTER
DR. H. H. PLANCHE

VANCOUVER MEDICAL ASSOCIATION

Founded 1898. Incorporated 1906.

PROGRAMME OF THE 30th ANNUAL SESSION

GENERAL MEETINGS will be held on the first Tuesday and CLINICAL MEETINGS on the third Tuesday of the month at 8 p.m. Place of meeting will appear on Agenda.

1927

Dec. 6th—General Meeting:

Papers—Dr. Chas. Edwin Sears, of Portland, Ore., "Some Aspects of Splenic Disease."

Dr. Karl Henry Martzloff, of Portland, Ore., "Carcinoma of the Cervix Uteri."

1928

Jan. 3rd—General Meeting:

Paper—Dr. H. H. Pitts, "On the Pathology of the Thyroid Gland."

Dr. T. H. Lennie, "Surgery of the Toxic Goitre."

Jan. 17th—Clinical Meeting.

Feb. 7th—General Meeting:

Papers—Dr. R. E. Coleman and Dr. H. Macmillan } "Relation of Carbohydrate Metabolism to Major Operations."

Feb. 21st—Clinical Meeting.

March 6th—General Meeting:

Paper—Osler Lecture, Dr. C. H. Vrooman.

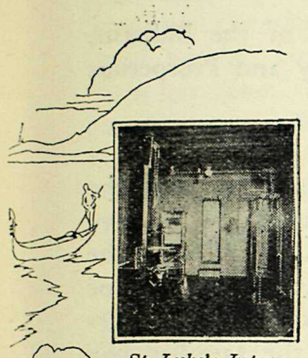
March 20th—Clinical Meeting.

April 3rd—General Meeting:

Paper—Programme to be arranged.

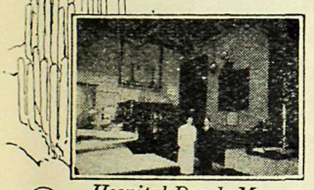
April 17th—Annual Meeting.

Why Do Many Leading Physicians and Hospitals in Foreign Countries Buy Victor X-Ray Equipment?

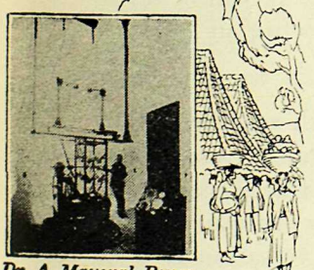


St. Luke's International Hospital, Tokyo, Japan.

Southern Islands Hospital, Cebu, Philippine Islands.



Hospital Dos de Mayo, Lima, Peru.



Dr. A. Mayoral, Ponce, Porto Rico.

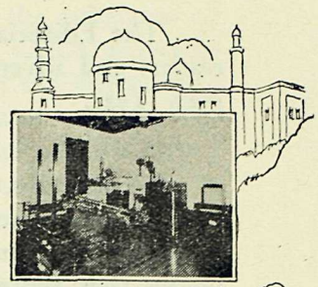
IN every civilized portion of this great, wide world, you are sure to find a group of men outstanding in their respective professions, because they are inspired in their aim to render fellow men a service eminently better than the generally accepted standard.

Where could such a high motive register greater benefits to humanity than through the physician in his community, clinic or hospital? The physician so inspired will invariably prove to be one who insists on having the best that science and research offer in drugs, instruments and equipment that comprise his armamentarium.

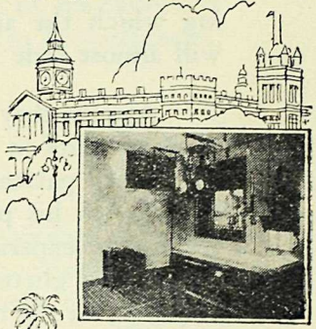
Why is Victor equipment found in use in all parts of the world, notwithstanding the fact that foreign manufactured equipment can be bought at prices considerably lower? The answer seems obvious enough. There is always a sufficient number of physicians and institutions who appreciate the advantages in having the best equipment available for their individual work, to justify the investment in a research and manufacturing organization that make possible this super-quality.

It is of more than passing interest to add that this class of business has made Victor X-Ray Corporation the largest organization in the world specializing in the manufacture of X-Ray and Physical Therapeutic apparatus.

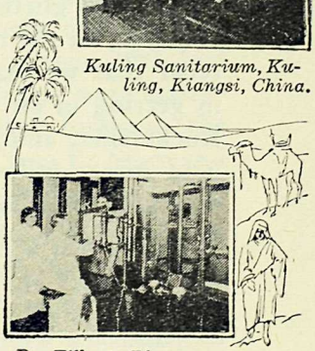
World-wide Victor Service is available through 48 service organizations established in 34 different countries, in addition to the 40 located in the principal cities of the United States and Canada.



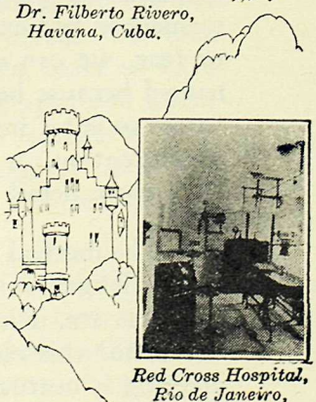
Lewisham Hospital, Sydney, Australia



Kuling Sanitarium, Kuling, Kiangsi, China.



Dr. Filberto Rivero, Havana, Cuba.



Red Cross Hospital, Rio de Janeiro, Brazil.

2012 Jackson Boulevard **VICTOR X-RAY CORPORATION** **Chicago, Illinois**

X-RAY
Diagnostic and Deep Therapy Apparatus. Also manufacturers of the Coolidge Tube

VICTOR

PHYSICAL THERAPY
High Frequency, Ultra-Violet, Sinusoidal, Galvanic and Phototherapy Apparatus

Vancouver Branch: Motor Transportation Bldg., 570 Dunsmuir St.

EDITOR'S PAGE

The Editorial Staff desires to tender to all patrons of the Bulletin, readers and advertisers alike, its best wishes for a Happy and Prosperous New Year.

* * *

Periodically, for the visitation has a distinctly seasonal aspect, the "detail" men descend upon the doctor. They appear to come, as we have indicated, in groups, as if a sudden inspiration had mutually affected the houses they represent. At times scarcely a day will pass for a week or more without its appointed visitant, followed by a quiescent period during which the appearance of the familiar figure with the familiar bag will almost fade from memory.

Always they are, at all events, faintly welcome, if only with the welcome of relief in finding that the unknown visitor, even though he is not the valued patient we had hoped to find, at all events has no gold bricks to sell. In his presence at least we have not that peculiar incarcerated feeling we experience when the well-known, high-pressure salesman fixes us with his glittering eye and defies us to move until or unless we weakly acquiesce in the mandate which bids us "sign here." Assured, then, with relief that we shall not be called upon to exhibit pusillanimous hesitation in getting in on the ground floor of an oil well after the manner of Mr. Rockefeller, and with the same assured results, or on the top storey of a gold mine, following the example of Mr. Guggenheim, with the certainty of a similar reward, or to feebly jeopardize our present success and future salvation by an uncertainty in the wisdom of purchasing the entire knowledge of the world in 24 volumes, illustrated with coloured plates and in a variety of bindings, samples of which by an incomparable sleight of hand are whipped out from some remote recess in the person of the tormentor and exhibited to our astonished gaze; assured we have nothing to fear, we can even smile benevolently on the "detail" man. Is he so named because he is detailed to call particularly upon us, or is it that he agrees to enter into details with regard to the products he recommends to our attention, or is it, perish the thought, that interviewing us is, after all, a mere detail in his daily round?

The method of approach is variable. Some come with regularity over such a length of time as to have almost a personal interest in us. Their products are, it is taken for granted, widely known and freely used, their house, for this recent continent, is already verging upon antiquity. The greeting is mutually that of long-parted friends and conversation is brisk from the onset. Then we have the essentially business type who "represent so-and-so" and would "like to call our attention to such-and-such a product," samples of which and "literature" (where do they gather the odd shapes, size and colours of their pamphlets and blotters?) are placed upon the desk, and leave is taken. The evidently scientific knowledge exhibited by some of these visitants would confound the very elect. Is the subject a preparation, say, adjuvant to the treatment of diabetes; in a peculiarly flattering way we, of course, are presumed to be an individual to whom the latest biochemical jargon is A B C, while the few facts in

the case are suitably bridged with yards of plausible theory. And so, more samples, more blotters, a cordial pressure of the hand, and away. Somehow the office feels empty. We are left staring at the collection of small bottles, boxes and literature, while the presence which animated them has gone. The samples seem to shrink in value and the waste-paper basket yawns. We have wondered, when these drug houses manufacture such nice lines of perfumes, soaps, shaving creams and so on, whether a selection of these articles might not leave with the doctor a more lasting impression.

The detail man is quite human, he has a family and a home and joys and troubles. He has curious information about all sorts of doctors in all sorts of places and is quite interesting on the subject of his travels if his professional talk bores one. As an institution, he seems to be permanent, to be accepted with suitable resignation.

* * *

NEWS AND NOTES

The December General Meeting of the Vancouver Medical Association was held in the Auditorium on Tuesday, the 6th. Seventy-three members were present and the president, Dr. A. B. Schinbein, occupied the chair. After the minutes of the special meeting on November 29th had been read and adopted, Drs. G. O. Matthews and E. J. Curtis were unanimously elected to membership. As there was no further business, the president introduced the speakers of the evening, Drs. Chas. E. Sears and Karl Henry Martzloff, of Portland, Ore.

Dr. Sears gave an address on "Some Aspects of Splenic Disease." He presented a highly instructive and intensive study of the known facts with regard to the histology and physiology of that interesting organ, the spleen. He then correlated these findings with the clinical picture presented in the various diseases in which the spleen is involved. He mentioned particularly the important relation that the spleen bears to hæmolytic jaundice, and later showed some interesting photographs and microphotographs of spleens that had been removed. In the lecturer's hands, splenectomy has given splendid results, and the whole tone of his address went to show that this procedure is not the bugaboo it has been hitherto considered.

Dr. Martzloff dealt with surgical treatment of cancer of the cervix uteri and the criteria for prognosis following operation and, gave a resumé of an interesting study of 387 cases from the records of the Johns Hopkins Hospital. Dr. Martzloff classifies cervical cancer according to the predominating variety of cell found. These 387 cases were thus divided into three large groups. Dr. Martzloff's lecture was based on 146 of these cases because they fulfilled the following conditions:

1. The patients were all operated on.
2. They all survived operation and left hospital cured.
3. Their present status is known (except in the case of some who were lost track of after being traced for five years. These are included in the five-year cures).

Classification according to predominating variety of cell:

1. Spinal cell cancer 30
   (Predominating cells characterizing this variety are morphologically similar to cells seen in the superficial zone of the stratum mucosum of the normal stratified epithelium.)
2. Transitional cell cancer 90
   (Predominating cells resemble those of the cervical epithelium forming a well-defined zone of cells, limited above by the characteristic spinal cell layer and below by the distinctive single-celled basal layer.)
3. Spindle cell cancer 17
   (The deeply stained nuclei here seen are closely placed and separated by only a small quantity of cytoplasm.)
4. Adenocarcinoma 9

Regarding prognosis, Dr. Martzloff stated the factors that influence the chances of an operative cure are: (1) Extension or metastasis when demonstrable in either the regional lymph nodes, adnexa, bladder, rectum or pericervical tissues, render ultimate operative cure impossible. (2) Extension of the cancer to the corpus uteri without extension elsewhere impairs the chances of ultimate cure but by no means obviates it in spinal celled cancer. (3) Extension to the vagina in otherwise operable patients is more serious than uterine extension. (4) Duration of symptoms *beyond eight months* is sufficient to put the patient outside the scope of an operation. Regarding the eight months' time limit. In the case of spinal celled cancer this is probably too arbitrary, and certainly no such arbitrary duration can be fixed for the adenocarcinoma. Curettage for diagnosis several days before operation does not affect the prognosis in the opinion of the lecturer. Of epidermoid cancers the spinal celled variety offers the most favourable prospect and Dr. Martzloff showed cures in 63.6 per cent. of operable cases. In the transitional cell type this is reduced to 46 per cent., while with spindle celled cancer it is as low as 14 per cent. The adenocarcinoma are the most hopeful, cures being obtained in 75 per cent. of the cases.

At the close of the addresses a hearty vote of thanks to the speakers for their kindness in coming to Vancouver and attending the meeting of the Association was carried unanimously.

* * *

A PRACTICAL APPLICATION OF THE TRANSVERSE ABDOMINAL INCISION

Communicated by Dr. H. Wackenroder.

Among recent medical visitors to the city was Dr. Bakes, Primarius of the Surgical Clinic at Brunn, Czecho-Slovakia. On request, Dr. Bakes kindly consented to perform an operation at the Vancouver General Hospital.

The case was one of a pyloric lesion in a man, where it was thought that a gastro-enterostomy would be a suitable procedure. Like many or most surgeons on the European Continent, this operation is seldom con-

sidered necessary by Dr. Bakes. Where the English or American surgeon employs gastro-enterostomy, the European surgeon usually prefers resection. In this instance, owing to the limited time at his disposal and to the fact of the absence of the special instruments used in the operation, Dr. Bakes intended, if circumstances permitted, to perform a gastro-enterostomy. However, on exposure of the lesion, a mass, apparently carcinoma, was found, and Dr. Bakes considered a resection imperative. The type of operation selected was Bilroth 1 as being the most applicable, although the operator as a rule preferred other methods. The resection was difficult and tedious but not otherwise remarkable. Silk was used throughout and the omentum sutured over the line of incision. An interesting feature was the skin incision used by Dr. Bakes, which was a horizontal one. This incision is preferred for the following reasons: (a) it gives unexcelled exposure for gastric work, (b) it is never followed by hernia, (c) it may be termed a physiological incision in that no muscles are severed and the aponeurosis, of which the fibres run transversely, are cut with the grain and not across, as in the usual vertical incision. The importance of this incision, in which the rectus muscle is mobilized, and displaced outwards, is that when the patient strains the natural tendency of the wound is to close.

Dr. Bakes' visit to Canada was primarily concerned with big-game hunting, and it is satisfactory to know that the doctor was able to secure a few specimens to add to his already large collection.

* * *

A SATISFACTORY METHOD OF OBTAINING URINE FROM MALE INFANTS

Dr. W. T. Ewing.

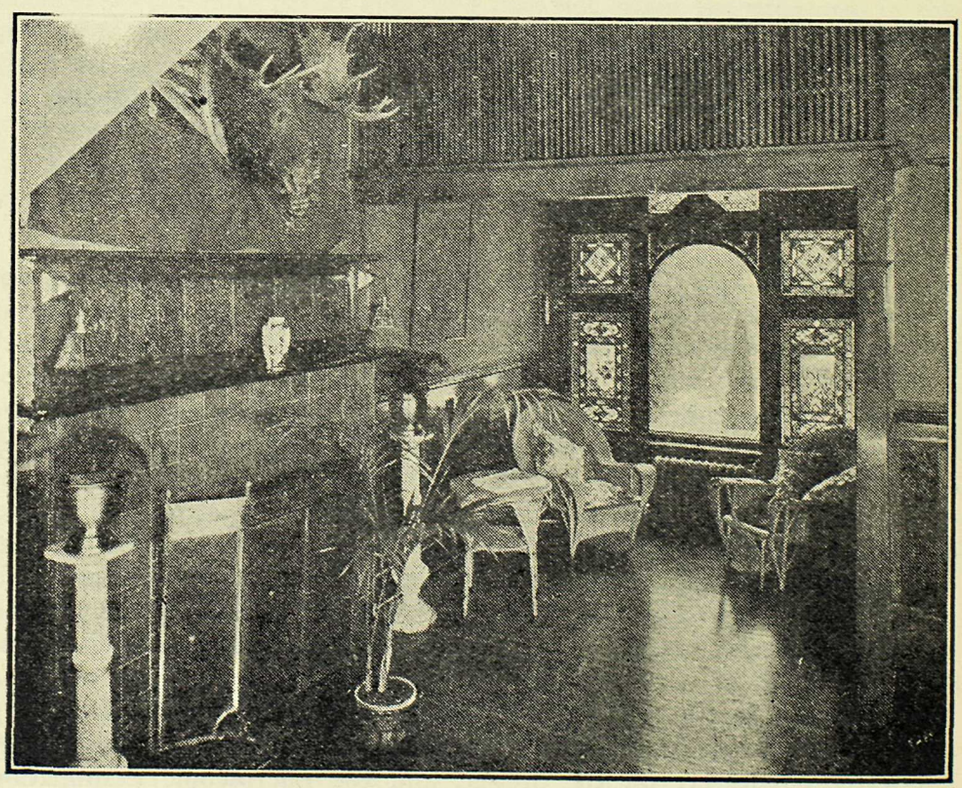
Some time ago I was called to see a baby boy of two years of age whose symptoms indicated a probable pyelitis. The usual difficulty in getting a sample of urine was present. The baby always "wet his napkins." I described to the mother the test tube and adhesive plaster method of obtaining the specimen and she agreed to try it. However, at the two following visits I was always told that something or other interfered and resulted in a failure to get the test tube. I then pointed out the seriousness of the situation and the urgent necessity of getting the sample. She finally informed me that the difficulties and discomfort of the test tube method, as well as her own hesitation in proposing the following alternative, had, in reality, been responsible for the delay. The method suggested was the use of a rubber condom instead of the hard glass test tube. I agreed at once and the results certainly proved that this is a very simple, efficient way of obtaining such specimens. The following morning the sample in its rubber container, flattened out like a miniature hot-water bottle, lay on the dresser, and the microscopic examination confirmed the diagnosis.

HOLLYWOOD SANITARIUM

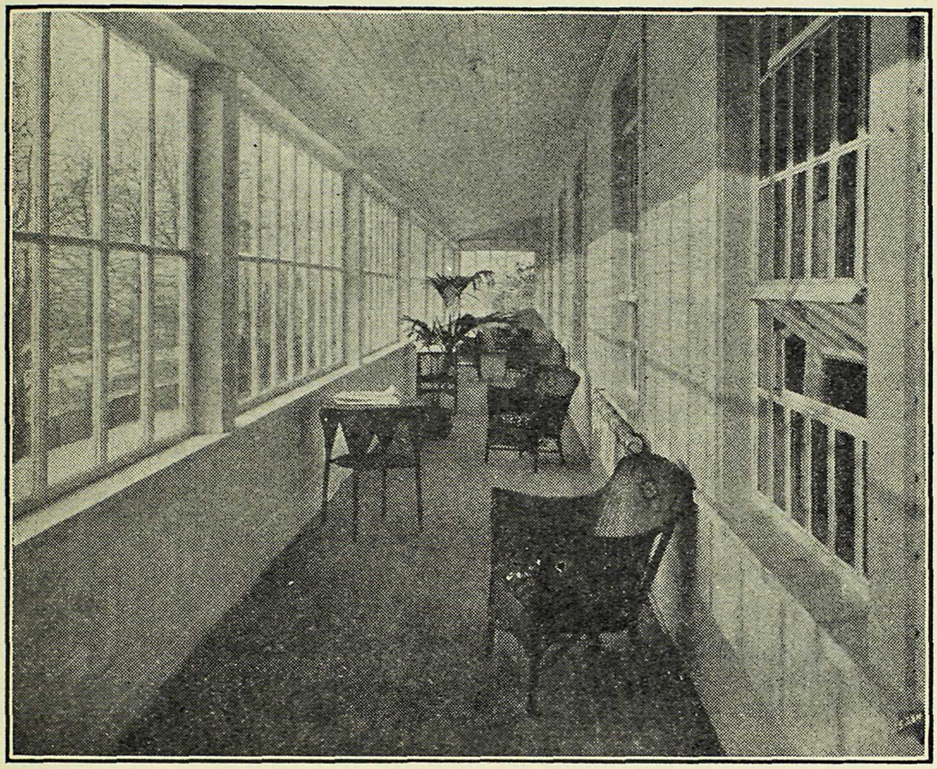
We are constantly reminded that mental disease is on the increase in British Columbia as elsewhere. The tendency of today is to regard mental disease as being analogous to physical disease, and to get away from the old idea that there is something disgraceful or humiliating about mental sickness. In line with this our hospital system of treatment for diseased minds is constantly being improved, institutions are more comfortable and are designed with a view to promoting that happiness and contentment of mind which are so essential in aiding speedy recovery.

Many families in which there is a sufferer from mental disease are loath to commit the invalid to publicly-owned institutions, as unfortunately they feel that a stigma attaches to anyone who has been in what is usually known as an Asylum. To meet the needs of people who can afford to pay within reason for the care of afflicted members of their family, private hospitals are growing up all over the country. B. C. is fortunate in possessing a very modern and up-to-date private hospital for the care of mental cases in Hollywood Sanitarium, of which Dr. J. G. McKay is medical superintendent.

Every medical man in Vancouver and its environs knows of Hollywood Sanitarium, but it is perhaps not sufficiently known to other members of the profession throughout Western Canada, though it draws its patients from a wide field. The Sanitarium has recently been very much enlarged and a great deal of modern equipment has been added, so that it



The Lounge



Sun Porch

is now in a position to take care of 40 patients, and provides for all the modern therapeutic methods deemed necessary and useful by advanced alienists. In fact we are informed that there is no private institution west of Ontario which is as large and fully equipped.

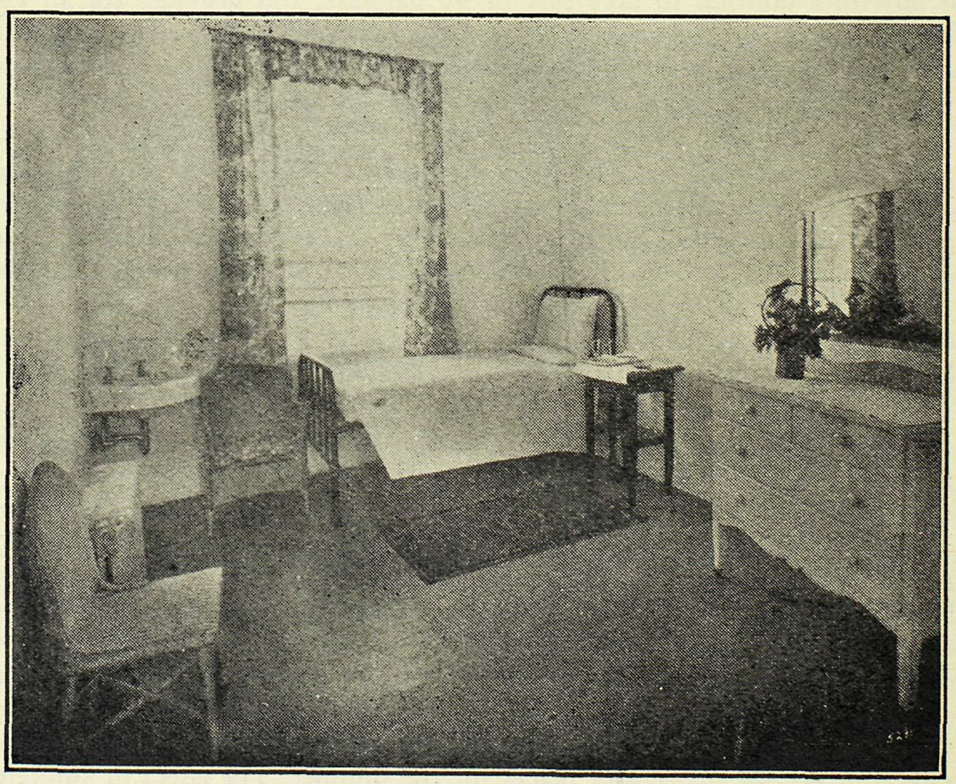
The building is beautifully situated in large grounds. Entering the institution one sees large comfortable sitting rooms, with fireplaces, where patients are sitting smoking and reading or engaged in conversation. On this floor we find a large sun room heated and available at any time of the year, a billiard room with standard table, and what is of greater importrance, a room specially designed for occupational therapy, which is becoming a very prominent feature in the treatment of mental cases.

In the older section of the building are some very luxurious suites for private patients, with fireplaces and separate bathrooms. The newer part of the building is two stories in height and the floors are exactly similar so that a description of one will suffice. One notices everywhere the tendency to depart from the old wire gratings and the restrictive type of building. In place of the steel mesh that used to darken the windows and exclude light, one finds thick plate-glass panes in steel sashes, which are almost equally unbreakable but do not convey the idea of restraint. On each side of the building are long verandahs, screened in and heated by steam radiators, which allow of exercise and fresh air in winter and provide comfortable sitting-out places for the summer. The effect of sunlight in the treatment of mental trouble is well known.

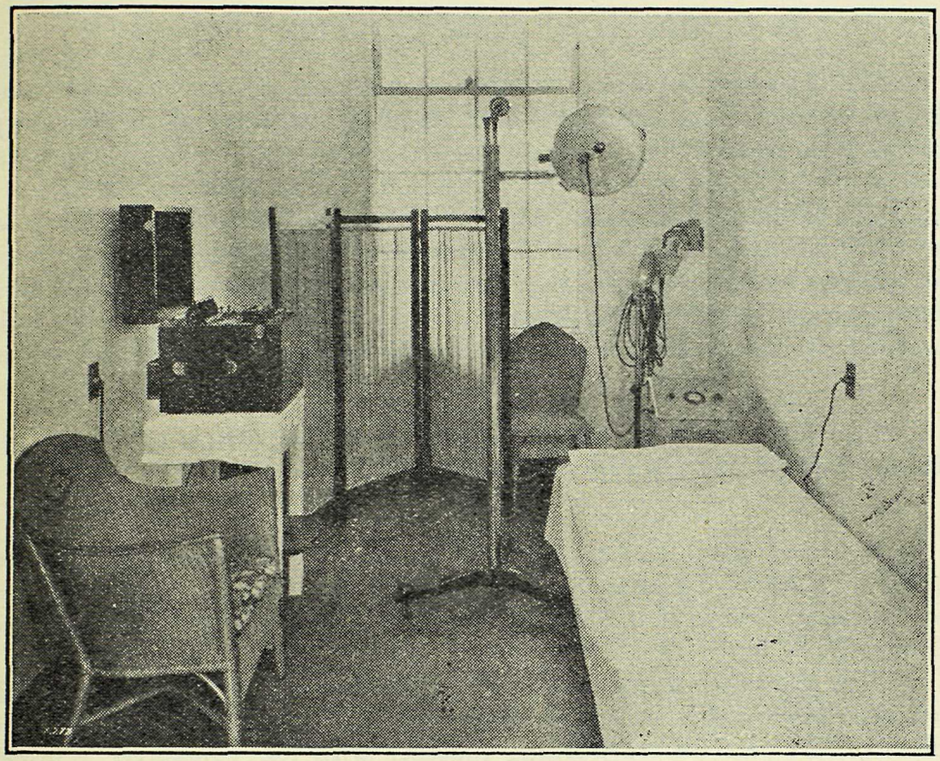
On each floor are special arrangements for hydrotherapy and physiotherapy. There are bath rooms fitted up with special devices for continuous warm baths, known as the finest remedy for excited or maniacal patients. Here, too, are showers and various forms of baths. In other rooms are quartz-light apparatus, the light being used as both a sedative and a tonic, the latter especially in depressed and melancholic cases. Electric bed baths where patients may be treated in the recumbent position, occupy other rooms.

The details of building have been very carefully worked out, and every precaution has been taken to guard against danger from fire. Escapes are provided in the form of chutes whereby patients can be lowered rapidly and safely without fear of accident or mishap. The ventilation is forced, and can be maintained at perfect efficiency if the room is tightly closed. The heating is by steam, and is maintained by a furnace which we were informed by the engineer is the only one of its type on this side of the line. It is especially efficient and keeps the entire building piping hot with 2 ozs. of steam to the square inch. This is done by the Hoffman Vacuum device. The basement in fact is a very interesting part of the building as here one finds a gymnasium, small but fully equipped to provide exercise and recreation for the patients who are able to avail themselves of it, and also a workshop.

The kitchen arrangements are similarly very complete. A large Frigidaire room has been installed for the preservation of perishable supplies and the kitchen itself is well equipped with all modern apparatus. A 450-



A Standard Bedroom



Physiotherapy Room

gallon tank supplies hot water for all the floors. In addition to the main kitchen, a small diet kitchen has been equipped upstairs for special dietetic purposes. Those patients who are not necessarily confined to their rooms meet at meals in the large dining room furnished with separate small tables, and have at their disposal large comfortable sitting rooms on each floor, brightened with big windows and big fireplaces.

The whole institution conveys a very homelike impression to the visitor and is not at all suggestive of a hospital. There are one or two suites specially equipped with separate sitting rooms and bath rooms where patients who have indulged in alcoholic excess may spend a few quiet days in perfect privacy recovering from the ill effects of their indiscretion.

The staff of the hospital in addition to the medical superintendent consists of ten nurses at whose head is Miss Best as matron. The latter is particularly delighted with the new additions and with the careful attention that has been shown in the detail of what may be called the housekeeping side of the institution. The floors, for instance, are covered with a neutral-tinted linoleum which is particularly easy to keep clean. The cupboard space and household arrangements in general are ample and very convenient and reflect considerable credit on the ability of Dr. McKay who designed the building himself.

We would suggest to any of our readers they pay a visit themselves to this sanitarium where they will receive a cordial welcome and see for themselves what a complete and practical institution it is.

B. C. MEDICAL ASSOCIATION NEWS

The Executive of the B. C. Medical Association takes this opportunity of wishing all its members a very Happy Christmas and all Prosperity in the New Year.

* * *

Our Executive Secretary, Mr. C. J. Fletcher, has unfortunately been absent from duty for the past three or four weeks suffering from a mild attack of rheumatism. It has given him much pain and prevented him from coming to the office. We are glad to report that he is almost well and will soon be on duty again. He has been greatly missed in the office.

* * *

Dr. W. A. Coburn, of Nanaimo, has been acting as a "*locum*" at Lake Cowichan for Dr. E. L. Garner, of Duncan.

* * *

It is with great pleasure that the Executive has learned that a third grant of $30,000 has been made to the Canadian Medical Association for extra-mural, post-graduate medical education by the Sun Life Assurance Company.

This company merits our warmest gratitude for its generosity, which has been expressed in so sensible and practical a fashion. Following the plans of last year we are working together with the Vancouver Summer School Committee to arrange a tour of speakers under this scheme which will coincide with the meeting of the Summer School in Vancouver in 1928. Our Secretary, Dr. Theo. H. Lennie, has written to Dr. Routley, Secretary of the C. M. A., asking him to include Kamloops, Victoria and Nanaimo in the itinerary.

We are hoping further to have an Autumn tour on similar lines but with more time spent at each place. The large attendance at each of the meetings this year shows the value attached to this work by the members of the various towns which were visited.

* * *

Dr. and Mrs. G. S. Purvis, of New Westminster, are to be congratulated on the birth of a daughter.

* * *

The regular monthly meetings of the Fraser Valley Medical Society have been well attended this Fall, and a good deal of interest taken in both the lectures and the clinics. On November 8th, Dr. J. Christie gave an address on the subject of "Skin Diseases in General Practice." On November 22nd, the evening was devoted to "A Study of the Kidney, Its Anatomy, Physiology and Pathology," with a discussion of the later renal function tests and differential diagnosis of nephritis and nephrosis. The Clinic was in charge of Dr. E. H. McEwen, of New Westminster. Dr. Theo. H. Lennie, of Vancouver, took as his subject "Toxic Goitre" at the meeting held on December 6th.

* * *

Dr. F. P. MacNamee, who has recently been in charge of Dr. Keyes' practice during the latter's absence in Vienna, will be associated with the Kamloops Clinic on or about the 1st of January, 1928.

The following letter was received by the B. C. Medical Association from the Secretary of the British Columbia Hospitals Association:

"At the 1927 Convention of the British Columbia Hospitals Association, held in Victoria, the following resolution was presented and carried unanimously, and I take pleasure in advising you of the same as directed.

"It having come to the observation of this Association of the kindness and prompt attention afforded by the physicians and surgeons of this province in the hospitals and in the out-lying districts in rendering aid to the sick without consideration as to remuneration, that this Association goes on record as expressing their deep appreciation of the services rendered, and that a copy of this resolution be sent to the British Columbia Medical Association."

* * *

We extend our congratulations to Dr. R. C. and Mrs. Weldon on the birth of a son on December 7th.

* * *

LIBRARY NOTES

The Library is situated in 529-531 Birks Building, Granville Street, Vancouver, B. C.

LIBRARIAN: MISS FIRMIN

Hours: 10 to 1, 2 to 6

SOME RECENT ADDITIONS TO THE LIBRARY

"U. S. History of the War," Vol. II. Administration. 1927.
"Early Diagnosis of the Acute Abdomen," Cope. 4th Edition. 1927.
"Treatment of the Acute Abdomen," Cope. 1926.
"Medical Clinics of North America," Vol. XI. No. 2. St. Louis number.
"Diseases of the Eye," Swanzy. 13th Edition. 1925.
"Clinical Interpretation of Blood Chemistry," Kilduffe. 1927.
"Birth Injuries of the Central Nervous System," Crothers & Putnam. 1927.
"Surgical Clinics of North America," Vol. 7. No. 24.
"Clinical Disorders of the Heart Beat," Lewis. 1925.
"Recent Advances in Hæmatology," Piney. 1927.
"Regional Diagnosis in Affections of Brain and Spinal Cord," Bing. 1927.
"Respiratory Function of the Blood," Barcroft. 1925.
"School of Hygiene & Public Health," Johns Hopkins. Vol. VIII. 1927.
"T. B. Disease of the Hip Joint," Perkins. 1926.
"Surgical Clinics North America." Vol. 7. No. 3., Pacific Coast number. October, 1927.
"Medical Clinics North America." Vol. XI. No. 3. Tulane University number. November, 1927.
"International Clinics." September, 1927.
"Urography," Braasch. 1927.
"Diagnosis and Treatment of Diseases of the Stomach," Rehfuss.
"Periodic Health Examinations," Fisk & Crawford.
"Medico-Legal Injuries," McKendrick. 1927.
"Jervis on Coroners," Danford Thomas. 1927.
"Infections of the Hand," Fifield. 1926

"Recent Advances in Ophthalmology," Duke-Elder. 1927.
"On Hernia," Sir Astley Cooper. 1844.
"A System of Anatomy and Physiology." Alexander Monro. In 3 volumes. Published in 1795.
"A Course of Chirurgical Operations Demonstrated in the Royal Garden at Paris." by Monsieur Dionis. Trans. from the Paris Ed. 1733.

REVIEWS

"INFECTIONS OF THE HAND," *Lionel R. Fifield, F.R.C.S., Eng., Surgical Registrar, London Hospital.* H. K. Lewis & Co., London. 9/–.

This small book is by the same author as "Minor Surgery," a copy of which is in our library.

Mr. Fifield, who has had many years' experience in the accident room of the great London hospital, is well qualified to write such a book The book is much smaller than Kanavel's classic monograph and is designed for use by students, house surgeons and practitioners. It is, though small, wonderfully complete and carefully written, the arrangement being particularly good. The first 40 pages are devoted to the anatomy of the hand and fingers, with over 20 diagrams and reproduced dissections. The various ismpler infections are dealt with and the more serious developments of palmar abscess, tendon sheath infections, osteomyelitis and lymphatic infections, fully covered and illustrated. The chapter on prognosis is very concise and useful, and withal this little book will be found very useful and does the author no small credit. It is well bound, on good paper and carefully indexed, and is highly recommended to the profession, containing, as it does, all of the essentials.—*L. H. A.*

"INTERNATIONAL CLINICS," 37th Series, Vol. III., September, 1927. J. B. Lippincott Co., Montreal.

"International Clinics is one of our most valuable medical journals. Its editorial board, composed of medical authorities of international note, is sufficient to guarantee authoritative and valuable articles. The main part of this number is devoted to diagnosis and treatment.

Wilson, in an article on the electrocardiographic study of the various forms of heart block, shows that by this means any type of block may be demonstrated, the type specified and the amount of myocarditis determined. It is only by such means that one can outline a systematic course of treatment or anything like a definite prognosis be given.

Colitis is clearly and concisely described by Brown of Johns Hopkins. He emphasizes the necessity of studying each case individually in an endeavour to arrive at an etiological diagnosis. His classification will aid to this end. There are two great subdivisions, namely, catarrhal and ulcerative colitis; the former divided into that due to drugs; to alimentary irritants; to endocrine disturbances; to exogenous infections; to intestinal parasites; colitis of gastric origin; colitis of pancreatic origin; post-operative colitis and the so-called mucous colitis where psychogenic factors play a major role. Ulcerative colitis has four subdivisions; the dysenteric, bacillary and amoebic; the malignant; the tuberculous and the so-called non-specific ulcerative colitis. The last named is the one of which we know the least. Many theories prevail; there are as many modes of treat-

(*Continued on Page* 117)

The British Columbia Laboratory Bulletin

Published monthly September to April inclusive in co-operation with the Vancouver Medical Association Bulletin, in the interests of the Hospital Clinical and Public Health Laboratories of B. C.

Edited by

DONNA E. KERR, M.A., OF THE VANCOUVER GENERAL HOSPITAL LABORATORIES

Financed by

THE BRITISH COLUMBIA PROVINCIAL BOARD OF HEALTH

COLLABORATORS: The Laboratories of the Jubilee Hospital and St. Joseph's Hospital, Victoria; St. Paul's Hospital, Vancouver; Royal Columbia Hospital, New Westminster; Royal Inland Hospital, Kamloops; Tranquille Sanatorium; Kelowna General Hospital; and Vancouver General Hospital.

All communications should be addressed to the Editor as above. Material for publication should reach the Editor not later than the seventh day of the month of publication.

Volume 2 | JANUARY, 1928 | No. 4

CONTENTS

* * *

EDITOR'S NOTE

Christmas and New Year is the time of giving. We hope that some of our collaborators will be inspired and give a little contribution to the B. C. Laboratory Bulletin. During the past year at the Vancouver General Hospital Laboratories conditions (due to lack of space, volume of work, and changes and ill-health of the staff) have not been conducive to the production of suitable material for the Bulletin, but we feel that the rest of the hospital laboratories must have some material that will make up for this deficiency.

* * *

A CHECK ON THE ACCURACY OF BLOOD COUNTS

W. Pottinger, V. G. H. Laboratories.

In conformity with our general policy of using every possible check on sources of error in this laboratory, we have come to rely upon the blood smear examination as a check on the technical errors inherent in cell counts and hæmoglobin estimations. Assuming that the errors of the apparatus are insignificant because of our method of standardization, there still remains the unavoidable potential errors of inexperienced workers, and fatigue. We, therefore, make it a practice of holding all blood smears for examination by a single experienced worker. In this way gross errors are detected, and if there is an apparent discrepancy between the blood count and the smear, the count and the smear are repeated.

With the red count and hæmoglobin a more detailed examination of the smear is required. First, the size of the reds is actually measured with a micrometer, also the shape and staining are noted. Normal staining indicates that the cells contain the normal proportion of hæmoglobin. A normal red count, therefore, would yield a smear showing cells of

normal size, shape and staining, and the colour index would be one, or close to one. On the other hand, a case of pernicious anæmia with a low red count and high colour index would show the red cells irregular in size and shape and many of the reds would be macrocytes, i. e., 10 microns and over. The count with the low colour index (e. g., 4,000,000 red cells and hæmoglobin 50%) would have pale staining and some under sized reds, usually found in the chlorotic type of anæmia.

In some of the secondary anæmias the colour index may be normal; the cell count and hæmoglobin both being correspondingly low or the index may even be slightly high, though most commonly the index is low. There is also an irregularity in the size of the red cells in any anæmia.

By this method of checking the chances of a gross error in blood counts are eliminated.

* * *

THE CLINICAL VALUE OF A GLUCOSE CURVE

Donna Kerr, M.A., V. G. H. Laboratories.

The following is a re-examination of the 102 Glucose Curves recorded in this laboratory between January 1, 1926, and November 1, 1927, for the purpose of reviewing their clinical interpretation.

At present it is usually possible from the glucose curve to confirm the diagnosis in mild cases of diabetes, to diagnose potential diabetes and establish cases of renal glycosuria.

In cases of suspected diabetes it is only necessary to do a blood sugar curve in those showing a normal fasting blood sugar. In this series, nine curves were done, in which the fasting blood sugar was markedly increased. In such cases we consider the inconvenience and expense to the patient exceeds any value from the curve. When consulted by the physician prior to the arrival of the patient in the laboratories, we run through the fasting specimen and if this blood sugar is not sufficiently high to make a diagnosis, we complete the glucose curve. The extra time and inconvenience of this to the laboratory is more than offset by the soundness of the principle.

Twenty-three or 22.5% of the total curves proved to be diabetic, according to our interpretation of the curve, and in all of these the fasting specimen was normal, or very nearly normal. The characteristic feature of the curves so diagnosed is that they fail to return to the normal fasting level two hours after the ingestion of the glucose. This is a more important point than the height of the curve.

Eight cases were classed by us as potential diabetes. In these the blood sugar rose above 180 mg. per 100 cc. blood three-quarters of an hour after the glucose. We consider that these cases should be watched very closely for any clinical signs of diabetes. When associated with clinical symptoms of "rheumatic" pains or persistent infection, restriction of the carbohydrates frequently improves the condition.

In this series of curves we diagnosed fourteen as renal glycosuria; that is, they showed a normal blood sugar curve and yet excreted sugar in the urine. Four showed less than 0.1% of sugar, while the other ten showed up to 2.5%. In one curve the fasting blood sugar was 78 mg., and the highest value after the glucose was 80 mg., yet sugar was excreted in the urine in as high concentration as 2.5%. These cases

showed no marked clinical signs of diabetes, and for the most part were examined because they showed sugar in routine urine analysis for life insurance.

Summary.—The glucose curves are useful in diagnosing mild diabetes, potential diabetes and renal glycosuria, especially in the accidental finding of glycosuria in routine urine examinations.

* * *

COMPARISON OF IMMEDIATE AND DELAYED PLATING ON MILK COUNTS

Gertrude O. Dowsley, B.A., V.G.H. Laboratories.

Our routine method of plating milk samples includes a period of several (4-5) hours, during which the sample stands in the water dilution bottles or in the milk can at ice-box temperature, before plating. In the case of the hospital milk samples, they are delivered to the hospital refrigerator room about 8 a.m. and kept in this cold room until 1 p.m., when a sample is taken and plated. In the case of the city milk, the samples are brought to the laboratory between 9 and 10 a.m. and are immediately diluted in water dilution bottles and placed in the ice-box until about 2 p.m., when they are plated. To determine whether the keeping of the milk in the dilution bottles or in the can at ice-box temperature made any significant difference to the final counts, as contrasted with immediate dilution and plating, the following experiments on the hospital milk were carried out.

One sample was taken from the milk can at 8 a.m. and placed in a water dilution bottle. The first set of plates were then made, after which the dilution bottle was placed in the ice-box. At 1 p.m. a second sample was taken from the same milk can in the refrigerator room, diluted and plated. At the same time a third set of plates was made from the dilution bottle remaining from sample one, which had been, as noted, in the laboratory ice-box since 8 a.m.

The following are the results after the usual 48 hours incubation. The table shows that in some cases the counts were higher in the second and third sets than in the first, while in others they were lower. The variations, however, were small in consideration of the inherent errors of the method, and therefore the factors described above do not appreciably affect the final milk count.

Date.	Set 1. Samples Taken at 8 a.m. Plated at 8 a.m.	Set 2. Samples Taken at 1 p.m. Plated at 1 p.m.	Set 3. Samples Taken at 8 a.m. Plated at 1 p.m.
Sept. 14, 1927	36,000	38,400	38,400
Sept. 21, 1927	35,000	780,000	45,000
Sept. 28, 1927	80,000	82,000	139,000
Oct. 5, 1927	21,400	11,800	12,100
Oct. 12, 1927	10,600	6,400	8,900
Oct. 19, 1927	15,700	6,500	4,300
Oct. 26, 1927	13,300	13,900	15,100
Nov. 1, 1927	10,500	11,200	9,400
Nov. 9, 1927	5,400	7,800	10,800
Nov. 16, 1927	10,200	9,300	10,200

CROSS AGGLUTINATION

Donna Kerr, M.A., V.G.H. Laboratories

The routine procedure in this laboratory when supplying a suitable donor is to obtain an individual in the same group as the recipient and test out the donor's cells with the patient's serum, and the patient's cells with the donor's serum. This test is done in duplicate, one set being put in the ice-box and the other at room temperature for one hour, and if there is no agglutination of cells the donor is used. The incidence of such agglutinations within the group was calculated in 238 cases and found to be only 13, or 5.5%. The majority of these occurred in group 3, and, considering the small number in group 3, by far the highest percent., that is, in 28 cases, 7 or 25% showed agglutination.

The table shows the usual distribution in the groups. Group 4 has the largest number, with group 2 running a close second. A few are in group 3, and only an occasional in group 1. There seems to be no difference in the distribution according to sex except that a greater number of females occurred in group 4, i.e., 53.6%, while only 49.5% of the total males fall in group 4; this is a negligible difference.

In this series, taken from this year's records, there were no cases in which it was impossible to obtain a suitable donor. In one case four donors were tried before a suitable one was found. Only once, since this technique of cross agglutination has been adopted, have we been unable to supply a donor. This was for a case of pernicious anaemia. Twelve donors were tried, and more would have been tried if the patient had remained in hospital.

From these figures it would appear that a donor in the same group might be used, in an emergency, without a cross agglutination, with only 5.5% risk, and thus save at least 1½ hours.

	Group I.		Group II.	
	Cross Satisfactory.	Cross Unsatisfactory.	Cross Satisfactory.	Cross Unsatisfactory.
Female	6	1	29	1
Male	1	0	38	0
Baby	1	0	12	0
Total	8	1	79	1

	Group III.		Group IV.	
	Cross Satisfactory.	Cross Unsatisfactory.	Cross Satisfactory.	Cross Unsatisfactory.
Female	7	2	52	0
Male	9	5	48	4
Baby	5	0	16	0
Total	21	7	116	4

(*Continued from Page* 112)

ment. The Mayo Clinic reports favourably on a mixed vaccine made from Burgen's diplococcus and a bacillus often found in conjunction with it, but at Johns Hopkins the results have been discouraging. At this clinic they have found that in severe cases surgery offers a better chance than non-surgical treatment. this view also being held by Boas and Schmidt. Very favourable results are obtained in most cases of the other types where the diagnosis can be reached and the above classification will point to the treatment necessary.

Wm. A. Steel of Philadelphia gives a short but complete differential diagnosis of thrombo-angeitis obliterans or Buerger's disease with accompanying illustrations in colours. The conditions most apt to be confused with it are varicose veins, senile sclerosis, symmetrical anæmia and diabetic anæmia; the three cardinal symptoms of Buerger's disease being intermittent claudication, erythromelalgia and the absence of pulse. The main part of the article is taken up with the intravenous sodium citrate treatment with results obtained in one hundred cases. This treatment combined with local heat and potassium iodide seem to have given favourable results in the hands of the writer, although Ginsburg and others have found little satisfaction it it.

There is an excellent article by Held and Gray of New York on differential diagnosis and treatment of gall bladder disease. The subject is taken up fully and although the article is long, it is full of information. The main portion considers in detail the differential diagnosis with some useful points on X-ray examination both with and without the aid of dyes. The treatment is taken up more from a medical than a surgical standpoint.

Phillips describes in a very clear way the treatment of peptic ulcer as carried out at the Cleveland Clinic. The dietary regime is outlined in detail with emphasis on the fact that treatment must be modified according to the indications of the individual case.

Goldstein makes a very thorough review of the literature on the subject of pneumococcus meningitis and endocarditis. The article is a lenghty one, mainly due to twenty case reports given in full. He concludes that it is possible with early diagnosis and prompt and active treatment to save some of the cases of pneumococcus meningitis. Early repeated spinal and internal lavage and drainage, with the injection of serum or antibody solution and the joint use of ethylhydrocuprein hydrochloride injections will probably bring the best results.

There are other interesting articles in this number by competent men. There is always a small section devoted to medical history, a subject of interest to all medical men, the particular one in this issue being devoted to Greek medicine.—*W. H. H.*

* * *

THE DIAGNOSIS OF ABDOMINAL TUMOURS

Being an address delivered before the Summer School of the Vancouver Medical Association by *Dr. H. C. Moffitt,* Professor of Clinical Medicine, University of California.

Either general or local symptoms may awaken suspicion of intra- abdominal malignancy which is the condition with which we have most fre-

(*Continued on Page* 120)

(*Continued from Page* 117)

quently to deal. Abdominal pain always means *something*—it may be the first hint of malignancy. Its interpretation may be difficult but an explanation should be carefully sought. From the nature of abdominal innervation we must not be surprised to meet with distantly referred sensations, or to be obliged to explain many vague discomforts rather than acute pain. Abrupt change in well-established habits of body should be given due attention. Loss of or queer changes in appetite, with vague distress after eating, is often the first and most valuable symptom of gastric carcinoma. Constipation may mark the begining of colon irritation or stenosis of a growth; unaccountable diarrhœa may be the earliest hint of pancreatic carcinoma. It is remarkable how often tenesmus with mucous and bloody stools may be disregarded by the patient or be unrecognized by the physician.

Unusual weakness, malaise, apathy, inertia in an active individual or definite loss of weight should demand explanation. Dyspnœa on exertion, a rapid pulse, slight ankle oedema and other signs of myocardial insufficiency may misdirect attention to the heart which has been weakened by the toxemia or anæmia of malignant disease. Execpt in lymphoblastoma, *fever* is not usually an inaugural symptom of abdominal tumours, although common enough in later stages. In a remarkable case of retroperitoneal lipoma which eventually caused death, the onset and each recurrence after three operations was ushered in by malaise and temperature. Unusual pallor, actual cachexia, more rarely pigmentation, may attract attention of a patient or his friends to something unusual going on. Thrombosis in any vein, but most often in the femoral without evident cause, has been regarded with suspicion of distant malignancy since the description by Trousseau, who was to find it later in himself as an early indication of his stomach cancer. More dramatic events—unconsciousness from large hæmorrhage, sudden obstruction of the bowel, perforation of stomach or colon may occasionally usher in the event.

A good history can rarely be assembled at the first sitting. Due attention must be given to the patient's description of *local* as well as general symptoms. Certain leads must be followed to a satisfactory explanation. Rarely the patient may himself have found the tumour. Usually, however, we shall be concerned chiefly in helping him to describe more clearly disturbances in *function.*

Although the history may at once direct attention to some particular region of the abdomen or to involvement of a definite organ, it is a wise rule to precede the local by a careful general examination. There is often a peculiar facies in abdominal disease—indicative usually of loss of weight and suffering—cachexia can hardly be misinterpreted nor unusual pallor overlooked. Pigmentation suggests intra-abdominal disease but does not localize it—it may be a feature of chronic tuberculosis or of liver or spleen affections as well as of adrenal involvement. We see it marked in some cases of hypernephroma. In a man some years ago gradual development of deep general pigmentation, of pain in the left flank and later of an irregular tumour in the kidney region led to diagnosis of an adrenal tumour or hypernephroma, until fully a year later enlargement of the left testicle showed we were dealing with a teratoma of the testicle with

metastases in the lumbar glands. There is a peculiar vivid reddish-purple hue of the entire body sometimes seen in hypernephromata. Two years ago remarkable colouring of this kind was seen in a young woman with amenorrhœa, hypertension and abdominal pain. At autopsy a remarkable growth of the pancreas was found, instead of the suspected cortical adrenal tumour.

Certain phenomena in *veins* should attract attention. Slow-growing tumours even without abdominal distension may lead to dilatation of lateral veins in the abdominal wall. Retroperitoneal growths may cause enlargement of small veins of the back. Regional dilated veins, particularly in right or left lower quadrants are more apt to mark underlying inflammatory masses than tumour, and not infrequently the neighbouring skin will show heat and turgidity. The caput medusæ may arise from tumour as well as from cirrhosis. Thrombosis of superficial veins has already been mentioned and successive involvement of many veins may occur. Thrombosis of deep veins may be shown by oedema of one or both legs and by ascites. Both oedema and ascites may be shifting phenomena even with complete cava block so that they may evade an occasional examination. Invasion of the renal veins by hypernephroma, with extension into the cava and even upward to the right auricle, is frequent. Remarkable clinical pictures may result, as in a series of cases which have come to autopsy in the University Hospital, San Francisco, in the last five years. Death may be caused by anuria due to blocking of both renal veins. The onset of symptoms may be absolutely abrupt as occurred in a streetsweeper of 46, who was apparently perfectly well until 2 weeks before entry, when he noted marked dyspnœa on exertion. A few days later the right hand swelled, then the right side of the face. Oedema completely disappeared three weeks after rest in hospital, but nosebleeds, petechiæ and hæmaturia became striking symptoms. Superficial veins were dilated over the upper part of the chest and there was intense cyanosis of the face. Signs in both lungs suggested miliary tuberculosis. Ascites slowly developed. A tumour was never palpated, but autopsy showed a hypernephroma of the left kidney with invasion of renal vein, cava, right auricle and ventricle and multiple nodules in the lungs. In two cases slow accumulation of ascites due to thrombosis of the cava had pushed down inguinal herniæ and probably filled the sacs. Operations had been done in other hospitals for relief of the herniæ without recognition of the hypernephroma. With complete block of the cava and hepatic veins, sudden tender enlargement of the liver may be noted with development of dilated right lateral thoracic veins and a caput medusæ. This syndrome of *Craven Moore* was seen in an Italian with a huge left-sided hypernephroma. *Jacobson* and *Goodpasture* in an article giving the literature of inferior caval occlusion, have described a case of hypernephroma with sudden enlargement of the liver and death within 24 hours from acidosis. A marked varicocele, most commonly on the left side, should, of course, always suggest the possibility of a kidney or other retroperitoneal tumour—particularly a hypernephroma.

Abdominal, like pulmonary tumours, may remain wholly latent until metastases occur. Search for neighbourhood or distant metastases should always be made as they may clinch a doubtfful diagnosis or decide

the question of an operation. I have seen cases of stomach carcinoma about to be operated upon when unmistakable signs pointed to secondary brain invasion. I have also seen patients prepared for removal of a testicle growth when inspection showed a huge mass of metastatic glands in the upper abdomen. Small nodules should be looked for in the skin, particularly in the neighbourhood of the umbilicus. Virchow's gland may be felt in the right as well as the left supraclavicular fossa. Inguinal or axillary gland invasion is not infrequent. Biopsies on glands or skin nodules may give decisive evidence. Massive enlargement of mesenteric or retroperitoneal glands may mask the primary tumour. Examination of the rectal shelf for nodules should never be neglected. Extraordinary invasion of the lungs may occur without symptoms, even without signs, except to X-ray. The importance of bone metastases must be emphasized. Cancers of the prostate, of stomach or pancreas frequently metastasize to bones and this tendency of hypernephromata is proverbial. The lesions in bones may give symptoms long before the primary tumour—years before, in a few cases of hypernephroma. This was so in a man with a tumour in the sternum noted two years before the occurrence of hæmaturia. Bone as well as other metastases of hypernephroma may pulsate strongly and simulate aneurism or sarcoma. Invasion of vertebræ by metastatic growths not infrequently results in paraplegia. Liver metastases are particularly frequent and often overshadow the primary growth. Jaundice, ascites, leg oedema, partial bowel obstruction, dilatation of stomach or duodenum may result from extensions of the growth or invasion of distant glands. Remarkable clinical pictures result from the peculiar metastases of neurocytoma or neuroblastoma in infants or young children. A number of these tumours have been seen both clinically and at autopsy. Robert Hutchinson in 1907 first brought the subject to the attention of clinicians by the publication of a series of cases with extraordinary metastases to skull and orbits. His illustrations and those in the paper of *Carter* show well the characteristics of this type of metastases known as the *Hutchinson type*. In the *Pepper type* there is great enlargement of the liver due to multiple small nodules. Both types, however, may be seen together. In a female negro infant of 9 months there was exophthalmos and numerous nodules were felt in the skull, some of them 7x8 cms. in size. The liver, kidneys and adrenals formed a mass weighing 1000 grams. In an infant boy 21 months old an enormous growth filled the entire left half and two-thirds of the right half of the abdomen.

Extraordinary disturbances in other ductless glands together with entire transformation of the body habitus and of the individual's personality may be caused by tumours of the adrenal glands—either benign or malignant. Precocious development of the gonads in young children, transformation of the sex type in adult women may be the first symptoms attracting attention to the adrenals. *Holmes,* in the Quarterly Journal of Medicine for 1925, reported the case of a young woman of 24, in whom menstruation ceased abruptly seven years before. Excessive growth of hair and gradual change of body to the male type began at 19. The uterus was atrophied, the clitoris much enlarged. Pain in the right abdomen was a recent symptom and this led to discovery of a tumour in the right flank. This was successfully removed and proved to be a benign

adenoma of the suprarenal cortex. Menstruation returned 36 days after operation and continued to be normal during the nine years that have elapsed. Abnormal hair entirely disappeared, the clitoris was reduced in size and the feminine type of body was completely restored. These are tumours of the adrenal cortex and, like hypernephromata, they may run a benign or a malignant course.

On January 11, 1926, an Italian woman of 38 entered the University Hospital. She had married at 24 and had four daughters, 12, 10, 8 and 5. Two years previously weight was 165, on entrance it was 135. Pain had been felt in the right lumbar region off and on for two years. Hypertrichosis had developed rapidly in the last fifteen months. Periods, until then regular, had ceased in May, 1925. During the last three months pain had grown worse and there was loss of appetite, weight and strength. A rounded, somewhat reniform, elastic, irregular mass as big as an orange was felt in the right upper abdomen. The liver was pushed downward and tilted forward so that its rounded surface was felt. The left liver lobe and stomach formed a prominent mass in the epigastrium, the stomach being obviously shifted to the left. The tumour moved down with the liver and could be shifted forward and to the left. It lay above and was apparently fused with the right kidney. A pyelogram showed the right kidney low, the pelvis large and the upper calyces flattened. Cholecystography showed a thin small gall bladder displaced inward by a tumour mass. Phthalein output was only 30% in two hours. An operation February 4, 1926, attempted removal of the tumour but was interrupted by hæmorrhage. Death occurred the same day. Autopsy by Dr. Rusk showed the following: The tumour with its adjacent kidney weighs 1400 grams. The kidney is normal in size. Its upper pole is compressed and flattened by the tumour mass above it. There is no growth of tumour tissue into the kidney substance. The two bodies are separated by the fibrous capsule of each and intermediate loose areolar connective tissue. The kidney is normal, except for the above-mentioned deformity. There is no apparent dilatation of the kidney pelvis. Instead of a single renal artery, the blood supply comes by way of several vessels. The tumour mass itself is spherical in shape and measures 12 cm. in diameter. It is surrounded by a thick capsule, adherent to which on the upper and anterior surface is a thin covering of the liver tissue, which remained attached when the tumour was removed. The tumour shows prominent veins over its surface. The surface is roughened with many fibrous tags. There are many purplish ecchymotic areas over it in its connective tissue covering. It is closely bound to the inferior cava by what may be a thick blood vessel. On its lower posterior border is an ear-like flap of yellowish brown adrenal tissue, the attaching borders of which gradually thin out and blend with the capsule of the tumour. Section of the mass shows a central cavity, about 4 cm. in diameter, which contains a yellowish-brown fluid. The substance is divided into lobules of varying sizes, a soft, coagulative necrosis and purplish areas suggesting hæmorrhage. Vascular markings are not numerous. Section through the tumour and vena cava at their attachment shows an infiltration of friable, cord-like masses which completely occlude the lumen of the vena cava. The vena cava is blocked along its whole extent from the diaphragm to the iliac vessels.

Microscopic description. Tumour.—The structure consists of large, fairly compact vascular masses or sheets of granular and fatty cells divided into lobules by connective tissue septa. The cells are large in size and polymorphous. In some regions there is a suggestion of the arrangement seen in the zona fasciculata of the adrenals. Areas of necrosis as well as areas of hæmorrhage are common. Mitotic figures are numerous. Best's carmine stain for glycogen showed this present in typical granular form, distributed regionally and not diffusely as might have been expected. Special stains for fat showed this present in abundant amounts throughout the sections. *Ovary.*—The epithelial covering of the ovary varies. In some places there is a loss of continuity which seems probly due to artefacts. Sometimes the epithelial cells are high cuboidal in type but in other places they appear more flattened. In the routine section taken, no follicles could be demonstrated. Corpora albicantia were common. One such corpus reached a diameter of 4 mm., and by central softening formed a simple cystic structure. Serial sections were made of a block of tissue. Examination of a series of thirty-five of these showed the presence of very occasional small Graafian follicles typical in structure. Only four such follicles were demonstrated. *Uterus.*—The endometrium is swollen and has the structure of a marked pseudodecidual reaction. It differs from the true decidua in the absence of the hyperplastic spongy layer, and in the congestion of the compacta which is here present but does not occur in the ordinary decidua. In addition there are numerous foci of necrosis surrounded by leucoccytic infiltrations in the compacta. These are present near the surface and ulcerate into the lumen. *Adrenal.*—In the left gland there is a small adenomatous structure in the cortical tissue.

Profound anæmia may be caused by tumours of the gastrointestinal tract but it is rarely difficult to differentiate this from pernicious anæmia. Marked leucocytosis may be a feature of certain sarcomata but it usually indicates a tumour of inflammatory origin or a complicating infection. In a case of hypernephroma reported many years ago the terminal blood picture was that of lymphocytic leukæmia. Ecsinophilia should suggest lymphoblastoma. There is little need of emphasizing the importance of macrospic and microscopic examinations of stomach content or of stools or of establishing definitely the source of microscopic or macroscopic blood in the urine. X-ray examinations should be estimated at their just merit. Conditions to be carefully looked for should be pointed out to the roentgenologist and the results of the examination discussed with him. The clinician should be familiar with the interpretation of films himself. Plain abdominal films may show many things of interest, may outline liver, spleen and kidneys, may show the tumour itself, or calcification in tumours, glands or veins. Not only are X-ray gastrointestinal examinations of supreme importance in diagnosis of tumours of the tract, but they serve to show its relations to other abdominal growths and may prove a valuable help in localization. Injection of CO_2 may assist in outlining deep-seated tumours. Cholecystography and pyelography are valuable methods if their limitations are kept in mind.

We come now to consideration of the tumour itself. We may find palpation difficult by reason of pain, meteorism, fat or ascites. Examinations of the abdomen must often be made repeatedly, at different times of

day, with varying degrees of stomach or bowel distension. Both patient and physician must be as comfortable as possible. Poultices or hot baths may help to relax abdominal muscles. Shifting positions may bring hidden tumours to light. Peristalsis may be seen best toward the end of the day. Tender areas, localized muscle rigidity, crepitus or friction must be noted. It goes without saying that vaginal and rectal examinations must be insisted upon and that proctoscopy must frequently be done. The abdomen must be explored for multiple masses. These may prove to be the multiple tumours of lymphoblastoma (and here enlargement of the spleen may give a useful hint) or they may be multiple gland or peritoneal metastases or multiple liver nodules from a primary source. It is well to remember that benign pelvic tumours, especially fibroids, are common, and will not infrequently be found confusing colon neoplasms or metastasis to ovaries or the pelvic shelf. Fæcal masses above a segment of partially obstructed bowel may be taken for multiple tumours or may magnify the size of the primary growth. It is by no means easy always to distinguish tumours from masses of inflammatory exudate. Large, stony, hard masses may form in right or left iliac fossæ from the slow extension of appendix or diverticula inflammation. Irregular hard tumours under the liver may be due to matted masses of omentum or bowel about an inflamed gall bladder or result from the slow perforation of a gastric or duodenal ulcer. We have seen cases of osteomyelitis of the pelvic bones with huge hard masses indistinguishable from retroperitoneal sarcoma even at operation. Pott's disease may give rise to tumours of queer shape and situation liable to be taken for retroperitoneal growths with invasion of vertebræ. The irregular masses in the mesentery and omentum, in the dry form of tuberculous peritonitis, may readily be misinterpreted. We have seen some most unusual syphilitic tumours in mesentery and omentum as well as in stomach, spleen and liver.

Localization in abdominal as in brain tumours is more accurate in the early stages before neighbouring tissues have been invaded, with resulting confusing symptoms of pressure or disturbed function. Repeated palpation with careful records of the size, shape, consistency and mobility of the tumour will help greatly in localization and in determination of its nature. Relationship to other organs must be established and the way these organs may be displaced or otherwise modified by the advancing growth must be borne in mind. X-ray and laboratory examinations may, as already indicated, be of great service in localization as well as in the discovery of the tumour.

Tumours of the spleen and left kidney are still too frequently confounded. It must be remembered that a hypernephroma may run a benign course of many years before malignant degeneration takes place. A Swiss, 58, had noted a tumour in the left hypochondrium for 8 years before metastases to lungs, bones, and blocking of the vena cava marked the onset of malignancy. In two cases of sarcoma of the spleen rotation of the spleen forward had presented a rounded surface instead of an edge for palpation. Tongue shaped invasion of the kidney by hypernephroma may simulate closely a notched edge of the spleen. Both splenic and renal tumours move on respiration and a plump mass of the spleen may be felt in the flank and may be moved plainly by ballottement. Careful repeated

examinations will usually decide correctly. As already noted, special X-ray investigations may help. At times enlargement of the spleen from other causes in combination with unusual symptoms may lead judgment astray. A man of 21, thirteen months before hospital entry, had cough and fever for some weeks. Six months later pain in the left lumbar region became severe. An irregular mass in the left hypochondrium was thought to be a kidney tumour. This idea was strengthened by the appearance of a mass above the left clavicle (which decreased after Coley toxins) and by the partial destruction of the seventh cervical and first and second dorsal vertebræ and of the second and third ribs. A pyelogram showed deformity of the upper calyces of the left kidney. Fever was moderate, irregular but constant. Phthalein output was only 15% in two hours. Autopsy showed an extraordinary number of tuberculous vertebral abscesses. The spleen, enlarged from a combination of amyloid and sepsis, lay with a deep rounded mass in the lumbar region. A deep groove due to rib pressure had partially separated an anterior tongue-like mass much like a kidney in shape. The spleen may be mobilized by a hypernephroma or kidney tumour and lie attached to the mass, forming queer agglomerates of rounded portions and definite edges. Retroperitoneal tumours are, in experience, not as infrequent as the literature would indicate. Benign growths may progress very slowly and for a long time cause very indefinite discomfort or queer distortion of stomach or duodenum. There may be marked distension of the upper abdomen resembling a pancreatic cyst, or tremendous general enlargement of the whole abdomen much like ascites. Nodular masses may be taken for tuberculosis or lymphosarcoma. Pressure on the cave ar aorta may give confusing symptoms. Retroperitoneal hæmatomata, traumatic or apparently spontaneous about the kidneys, or the result of slow leakage from abdominal aneurisms may be mistaken for tumour. The previous history and rapid development of marked anæmia may put us on the right track.

In my experience tumours of the body and cardiac end of the stomach are frequently overlooked. Even X-ray may find difficulty in demonstrating carcinoma near the cardia. Slow perforation with septic temperature and leucocytosis has occurred in several cases in hospital without the real cause being found—even after X-ray investigation. We still make mistakes in labelling inflammatory masses in various parts of the abdomen as malignant disease. We still see tumours where even continued investigation will leave us in doubt as to the possibility of removal. The exploratory laparotomy is, therefore, still justifiable. In a man seen four years ago with Dr. Hammond of Stockton, it seemed impossible to believe that the massive tumours in the liver was anything but a carcinoma and yet operation showed an enormous infected cyst-like cavity, probably the result of old amoebiasis. To supplant careful clinical investigation by premature exploration is, however, as deplorable as to place sole reliance in diagnosis of gastrointestinal lesions upon the x-ray examination. Both are inimical to the cultivation of proper clinical methods. The diagnosis of abdominal tumours must rest, after all, on a solid basis of good history taking, knowledge of pathology, careful repeated examinations, correlation with laboratory findings and above all upon sound straight clinical thinking. The ending of Osler's little book has always strongly appealed

to me in the light of many operations or post mortems on abdominal tumours. He describes Traube in reviewing some error as observing: "Have we carefully observed all the facts in the case? Yes. Did the art permit of a judgment on the facts under consideration? Yes. Did we reason correctly upon the data before us? No. *Wir haben nicht richtig gedacht.* (We have not *thought* correctly).

Gentlemen, let us take time in the midst of hospital and private practice detail which threatens to overwhelm us, to *think.*

* * *

VANCOUVER HEALTH DEPARTMENT

STATISTICS, NOVEMBER, 1927

Total Population (Estimated)		137,197
Asiatic Population (Estimated)		10,576
		Rate per 1000 of Population
Total Deaths	126	11.18
Asiatic Deaths	18	20.71
Deaths—Residents only	94	8.34
TOTAL BIRTHS	261	23.15
Male 150		
Female 111		
Stillbirths—not included in above	15	
INFANTILE MORTALITY—		
Deaths under one year of age	9	
Death Rate per 1000 Births	34.48	

CASES OF INFECTIOUS DISEASES REPORTED IN CITY

	October, 1827		November, 1927		December 1 to 15, 1927	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Smallpox	0	0	1	0	0	0
Scarlet Fever	2	0	7	0	1	0
Diphtheria	26	2	26	1	14	1
Chicken-pox	63	0	86	0	33	0
Measles	4	0	1	0	1	0
Mumps	18	0	39	0	29	0
Whooping Cough	12	0	8	0	3	0
Typhoid Fever	0	0	0	0	2	1
Tuberculosis	16	11	15	17	3	—
Erysipelas	6	1	6	1	3	0
Cerebro-spinal Meningitis	0	0	1	0	0	0
Cases from outside city—included in above						
Diphtheria	5	1	4	0	4	0
Scarlet Fever	1	0	2	0	0	0
Poliomyelitis	5	1	0	0	2	1

ADRENALIN INHALANT

For Rapid Relief in Cases of Nose and Throat Infection

WHEN the nose is blocked and the accessory sinuses are closed by pathogenic organisms and the resulting inflammatory exudate, Adrenalin Inhalant usually affords the patient immediate relief and aids the healing process by maintaining drainage through its tonic, astringent effect on the tissues and blood vessels.

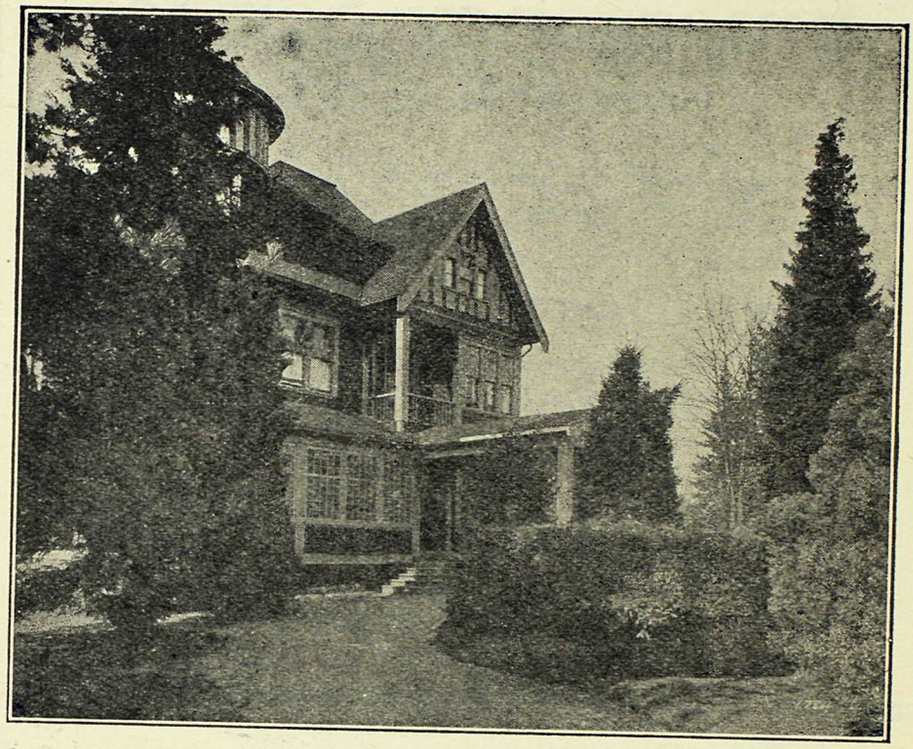
Adrenalin Inhalant is also of value in the control of hemorrhage from accessible mucous membranes. It may be applied directly to the bleeding surface on cotton or in the form of a spray.

In rhinitis, pharyngitis, tonsillitis, laryngitis, angina, hay fever, etc., Adrenalin Inhalant is very useful. It likewise promptly controls certain forms of bronchial irritation attended with coughing.

Adrenalin Inhalant is supplied in 1-oz. bottles only.

PARKE, DAVIS & COMPANY

ADRENALIN INHALANT HAS BEEN ACCEPTED FOR INCLUSION IN N. N. R. BY THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION



Hollywood Sanitarium
LIMITED

For the treatment of

Alcoholic, Nervous and Psychopathic Cases
Exclusively

Reference ~ B. C. Medical Association

For information apply to

Medical Superintendent, New Westminster, B. C.
or 515 Birks Building, Vancouver

Seymour 4183 Westminster 288