THE

BULLETIN

Published By

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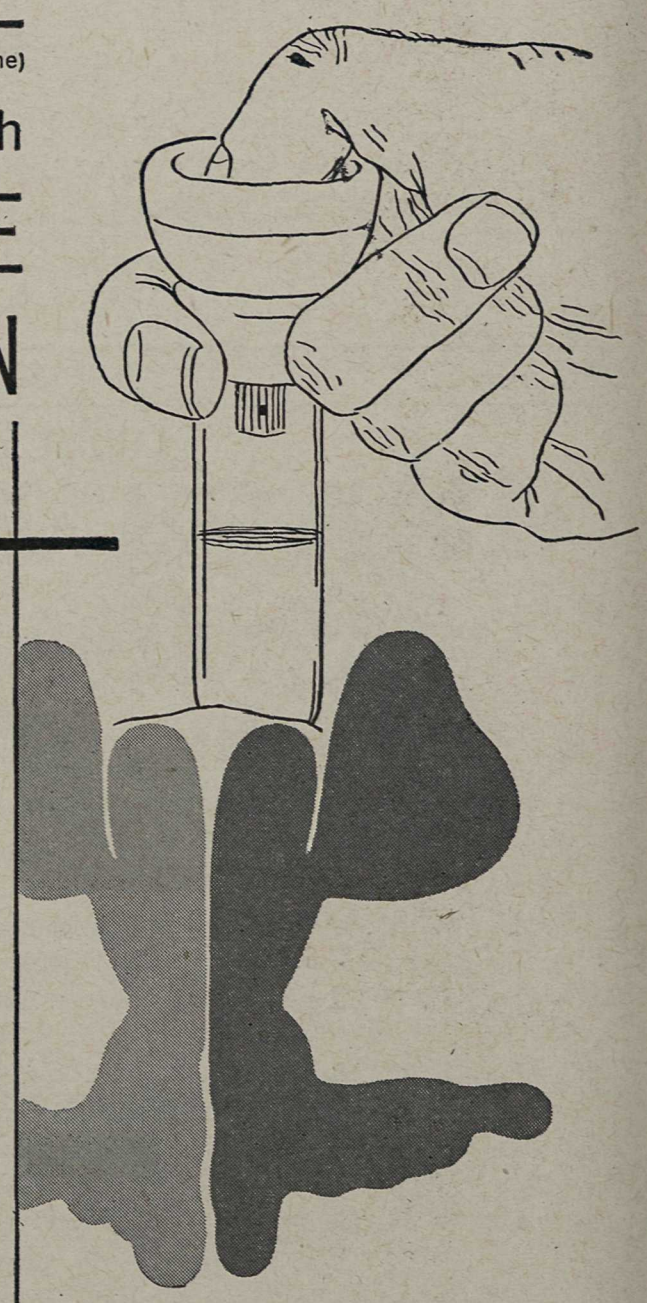

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VANCOUVER MEDICAL ASSOCIATION

Founded 1898; Incorporated 1906

PROGRAMME FOR THE FIFTY SECOND ANNUAL SESSION

(Spring Season)

MARCH 2nd—SPECIAL MEETING Speaker—Professor F. H. Bentley, Department of Surgery, University of Durham Medical School, England.

MARCH 6th—SPECIAL MEETING, Lecture by Sir Reginald Watson-Jones, title: "The New World of Orthopaedic Surgery."

MARCH 8th (WEDNESDAY) "OSLER LECTURE"—Presented by DR. GEORGE A. DAVIDSON, HOTEL VANCOUVER Title: "Men of Osler's Time."

MARCH 28th—SPECIAL MEETING—"Lecture by Dr. Cecil Watson, Professor of Medicine, University of Minnesota, Title: "Some Fundamental and Clinical Aspects of the Problem of Hepatic Cirrhosis."

APRIL 4th—GENERAL MEETING—"The Problem of the Prostate", Dr. L. G. Wood.

MAY 2nd—ANNUAL MEETING.

It has been the practice in the past to hold a meeting of the Clinical Section of the Vancouver Medical Association on the third Tuesday in each month. These meetings were held at alternate hospitals and owing to this fact, often two Clinical meetings were held at a hospital in one month. To overcome this situation a plan has been worked out whereby the members of the Vancouver Medical Association are invited by the various hospital Directors to attend their Clinical Staff meetings. These meetings will be held as follows:

Second Tuesday—Shaughnessy Hospital

Third Tuesday—St. Paul's Hospital

Fourth Tuesday—Vancouver General Hospital

Notice and programme of these meetings will be circularized by the Executive Office of the Vancouver Medical Association.

All special and general meetings will be held in the Tuberculosis Institute Auditorium.

THE BULLETIN

Publishing and Business Office — 17 - 675 Davie Street, Vancouver, B.C.

Editorial Office — 203 Medical-Dental Building, Vancouver, B.C.

The Bulletin of the Vancouver Medical Association is published on the first of each month.

Closing Date for articles is the 10th of the month preceding date of issue.

Manuscripts must be typewritten, double spaced and the original copy.

Reprints must be ordered within 15 days after the appearance of the article in question, direct from the Publisher. Quotations on request.

Advertisements

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VANCOUVER HEALTH DEPARTMENT

CASES OF COMMUNICABLE DISEASE REPORTED IN THE CITY

STATISTICS — FEBRUARY, 1950

Total Population—Estimated	376,000
Chinese Population—Estimated	7,455
Hindu Population—Estimated	275

JANUARY, 1950

	Number	Rate per 1000 Pop.
Total deaths (by occurrence)	349	11.1
Chinese deaths	19	30.5
Deaths, residents only	321	10.2

BIRTH REGISTRATIONS—RESIDENTS AND NON-RESIDENTS
(includes late registrations)

		January, 1950
Male	448	
Female	442	
	890	28.4

INFANT MORTALITY—Residents only:

	January, 1950
Deaths under 1 year of age	12
Death rate per 1000 live births	18.6
Stillbirths (not included in above item)	5

CASES OF COMMUNICABLE DISEASES REPORTED IN THE CITY

	January, 1950		January, 1949	
	Cases	Deaths	Cases	Deaths
Scarlet Fever	19	0	8	0
Diphtheria	0	0	0	0
Diphtheria Carriers	0	0	0	0
Chicken Pox	100	0	306	0
Measles	80	0	61	0
Rubella	10	0	10	0
Mumps	79	0	17	0
Whooping Cough	1	0	0	0
Typhoid Fever	0	0	0	0
Typhoid Fever Carriers	0	0	0	0
Undulant Fever	5	0	2	0
Poliomyelitis	1	0	2	0
Tuberculosis	49	11	42	6
Erysipelas	0	0	1	0
Meningitis	2	0	1	1
Infectious Jaundice	0	0	0	0
Salmonellosis	5	0	1	0
Salmonellosis Carriers	0	0	0	0
Dysentery	2	0	1	0
Dysentery Carriers	0	0	0	0
Tetanus	0	0	0	0
Syphilis	38	2	26	1
Gonorrhoea	180	0	171	0
Cancer (Reportable)				
Resident	63	57	77	45
Non-Resident	19	5	42	7

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The Editor's Page

We have received a letter from the B. C. Pharmaceutical Association dealing with the matter of the sale of antihistaminic drugs. Owing to the widespread publicity given to these drugs as preventives or even cures of the common cold, in the press and in certain widely-sold magazines, the public has been demanding that they should be able to buy these drugs at will. There are certain side-effects, not always manifest, but occurring with sufficient frequency to constitute a degree of danger—drowsiness, nausea, and so on. Accordingly, these drugs have, temporarily at least, been put on the list of drugs which may only be sold on prescription.

We feel that this is perhaps just as well, for several reasons. First, because of these side-effects, which may lead, and in fact have occasionally led, as we understand, to regrettable consequences. Secondly, because the value of these drugs, either to prevent, or even mitigate, the miseries of the common cold, is no means proven. It does seem, as some medical men have found, that taken early in a cold, there are sometimes signed that the cold has been aborted—but whether this is *post hoc* or *propter hoc,* is not at all clear. And there is no evidence, as far as we know, that they have any curative effect. If taken too long, or without proper supervision, their use may be a bad thing, as other precautions against more serious involvement are overlooked and a condition which, if treated properly, might have subsided, may become aggravated and lead to a more serious illness. Thus we do not think that these drugs should be available for uncontrolled use, nor be offered freely for sale by pharmacists until more accurate knowledge is available.

As with so many other medical matters and methods of treatment, we have to put at least some of the blame for the present state of affairs on such publications as the *Readers' Digest,* and other magazines which make a practice of going off half-cocked over the newer medical work and discoveries. Almost invariably the articles that they print are wildly enthusiastic blurbs, showily written, inaccurate and undocumented—and we wish that there was some way of counteracting some of their effects. It is a free country, we suppose, and anyone can write anything he wishes, but it is a pity that we (and here we include such responsible bodies as the B. C. Pharmaceutical Association), do not have some way ourselves of obtaining publicity and giving information which would be conservative, accurate and safe.

We can think back to other instances of this same sort of thing. One-night cures for athlete's foot, which ruined at least hundreds of feet; dramatic articles about thiouracil, the drug which was to end surgery in cases of toxic goitre; ballyhoo of various sorts about penicillin, and the other antibiolics, each one of which was hailed as the remedy to end all disease. There is an interminable list.

Writing for medical men, we do not need to labour this point, but it brings us back again to the need for some better system of public relations, or rather, some system —for at present we have none. It is a difficult question, and we doubt if it can be done by us as a profession. Most of our efforts in that direction have been not only feeble, but futile.

Perhaps a hint of the line we might follow has been given us by the recent action of the Health Bureau of the Vancouver Board of Trade, which recently approached the Vancouver City Council on the matter of hospital accommodation. It was, we think, an admirable thing to do. It enlisted the support and backing of interests outside the medical profession, and made it impossible for anyone to accuse us merely of self-seeking or self-advertisement. There are a score of matters of interest and importance, not only to us, but to the public at large, which might well be dealt with in this way. Dr. L. A. Patterson, the energetic chairman of this Health Bureau, and his fellows, are to

be commended for doing a good piece of public relations work. We hope that this lead will be explored further—and we think that the whole community could benefit by further action along this line.

Vancouver Medical Association

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Editor ..... Dr. J. H. MacDermot

LIBRARY NOTES

Library Hours:

Monday, Wednesday and Friday ..... 9:00 a.m. - 9:30 p.m.
Tuesday and Thursday ..... 9:00 a.m. - 5:00 p.m.
Saturday ..... 9:00 a.m. - 1:00 p.m.

Recent Accessions

Authority and the Individual, by Bertrand Russell, 1949 (Historical and Ultra-Scientific Fund).

Diseases of Children, vol. 2, edited by Paterson, D., and Moncrieff, A., 4th edition, 1949.

Essentials of Public Health, by Shepard, W. P.; Smith, C. E.; Beard, R. R., and Reynolds, L. B.

Integrative Action of the Nervous System, by Sir C. Sherrington, 1947.

Office Gynecology, by J. P. Greenhill, 5th edition, 1949.

Regional Ileitis, by B. B. Crohn, 1949.

Renal Origin of Hypertension, by H. Goldblatt, 1948.

Sir William Gowers, by Macdonald Critchley, 1949 (Nicholson Collection).

Sterility and Impaired Fertility—Pathogenesis, Investigation and Treatment, by Lane-Roberts, C.; Sharman, A.; Walker, K.; Wiesner, B. P., and Barton, M.

Taylor's Principles and Practice of Medical Jurisprudence, vol. 2, edited by Smith, S., with legal aspect by Cook, W. G. H., and the chemical aspect by Stewart, C. P.

Technique of Pulmonary Resection, by Overholt, R. H., and Langer, L., 1949.

The following specialized journals are taken in the library of the Vancouver Medical Association and copies can be obtained by members upon request to the librarian:

Eye, Ear, Nose and Throat

American Journal of Ophthalmology
Annals of Otology, Rhinology and Laryngology
Archives of Ophthalmology
Archives of Otology
The Laryngoscope

Neurology and Psychiatry

American Journal of Psychiatry
Archives of Neurology and Psychiatry
Brain
Journal of Mental Science
Journal of Neurosurgery
Journal of Neurosurgery
Journal of Nervous and Mental Diseases
Journal of Neurology, Neurosurgery and Psychiatry
Mental Hygiene
Quarterly Review of Neurology and Psychiatry

Public Health

American Journal of Public Health
Canadian Journal of Public Health

In response to our notice in the November issue of the Bulletin for copies of the British Medical Journal, vol. 2, 1947, to replace our missing volume, all except five copies have been donated by Dr. H. C. Rogers, of Nanaimo, B.C., and the following is the letter sent to him by the Library Committee:

February 15th, 1950.

Dr. H. C. Rogers, Medical Officer,
Nanaimo Indian Hospital,
Nanaimo, B. C.

Dear Doctor Rogers:

On behalf of the Library Committee may I thank you very much for your kindness in donating to the Library the copies of the British Medical Journal for the second half of 1947 in response to our request in the Bulletin.

It is extremely difficult for us to replace volumes when they are lost, especially British publications, and your generosity in sending us these copies is deeply appreciated by the Committee.

Yours very truly,
(signed) E. France Word, M.D.,
Secretary, Library Committee.

* * * * *

The five missing copies of the British Medical Journal are for August 23, September 6, October 11, 18 and November 1, 1947, and if any members have copies of these issues together with the index to vol. 2, 1947, that they do not wish to keep, the V. M. A. library at 203 Medical-Dental Building, Vancouver, B. C., would appreciate receiving them.

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1950
SUMMER SCHOOL CLINICS

May 29th to June 2nd, Inclusive—Hotel Vancouver

SPEAKERS

Dr. A. L. Chute—Pediatrician—Sick Children's Hospital and Associate Professor, Banting and Best Dept., of Medical Research—University of Toronto.

Dr. Howard P. Lewis—Professor of Medicine, University of Oregon Medical School, Portland, Oregon.

Professor J. Chassar Moir—Nuffield Department of Obstetrics and Gynaecology, Radcliffe Infirmary, Oxford, England.

Dr. R. L. Sanders—Associate Professor of Clinical Surgery, University of Tennessee, Memphis, Tenn.

Dr. Myer Wiener—Honorary Consultant Ophthalmology, Bureau of Medicine & Surgery, United States Navy, Coronado, California.

Fee, $10.00. Information, Dr. G. C. Large, 203 Medical-Dental Bldg.

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1949 - 1950

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Immediate Past President ..... Dr. F. M. Bryant, Victoria

We are publishing hereunder a few of the highlights of the Income Tax Regulations as they affect medical men. A fuller account is being published in the March issue of the Canadian Medical Association Journal. Doctors would be well-advised also to consult a competent accountant in making out their returns. His fees will be many times repaid by his knowledge of the Income Tax Regulations.—Ed.

INCOME TAX

INCOME

1. There should be maintained by the doctor an accurate record of income received, both as fees from his profession and by way of investment income. The record should be clear and capable of being readily checked against the return filed. It may be maintained on cards or in books kept for the purpose.

EXPENSES

2. Under the heading of expenses the following accounts should be maintained and records supported by vouchers kept available for checking purposes:

(a) Medical, surgical and like supplies;

(b) Office help, nurse, maid and bookkeeper; laundry and malpractice insurance premiums. (It is to be noted that the Income Tax Act does not allow as a deduction a salary paid by a husband to a wife or vice versa. Such amount, if paid, is to be added back to the income);

(c) Telephone expenses;

(d) Assistants' fees;

The names and addresses of the assistants to whom fees are paid should be furnished. This information is to be given each year on Income Tax form known as Form T.4, obtainable from your District Income Tax Office;

(e) Rentals paid;

The name and address of the owner (preferably) or agent of the rented premises should be furnished (see (i));

(f) Postage and stationery;

(g) Depreciation;

Effective with the taxation year 1949, a very significant change has been made with respect to the method of computing annual depreciation charges on capital equipment. This new method is termed Capital Cost Allowance and is outlined in P.C. 6385, dat6ed December 21st, 1949. All previous information published to the profession pertaining to depreciation on both medical equipment and motor cars and on residences used for both dwelling and office purposes should be disregarded.

Only that portion, of the total automobile expense, incurred in earning the income from the practice may be claimed as an expense and therefore the total expense must be reduced by the portion applicable to your personal use.

Sundry expenses (not otherwise classified)—the expenses charged to this account should be capable of analyses and supported by records.

Claims for donations paid to charitable organizations will be allowed up to 10% of the net income upon submission of receipts to your Income Tax

Office. This is provided for in the Act.

The annual dues paid to governing bodies under which authority to practice is issued and membership association fees, to be recorded on the return, will be admitted as a charge. Registration fees for license to practice or other registration or entry fees, and the cost of attending post-graduate courses will not be allowed.

CONVENTION EXPENSES

"Effective January 1, 1948, the reasonable expenses incurred by members of the medical profession in attending the following Medical Conventions will be admitted for Income Tax purposes against income from professional fees:

1. One Convention per year of the Canadian Medical Association.
2. One Convention per year of either a Provincial Medical Association or a Provincial Division of the Canadian Medical Association.
3. One Convention per year of a Medical Society or Association of Specialists in Canada or the United States of America.

The expenses to be allowed must be reasonable and must be properly substantiated; *e.g.*, the taxpayer must show (1) the dates of the Convention; (2) the number of days present, with proof of claim supported by a certificate of attendance issued by the organization sponsoring the meetings; (3) the expenses incurred, segregating between (a) transportation expenses, (b) meals and (c) hotel expenses, for which vouchers should be obtained and kept available for inspection.

None of the above expenses will be allowed against income received by way of salary, since such deductions are expressly disallowed by statute.

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BOOK REVIEW

ATOMIC MEDICINE, edited by Chas. F. Behrens, M.D., Captain M.C., U.S. Navy. Director Atomic Defence Division, Bureau of Medicine and Survey, Navy Dept., Bethesda, Md., pp. 416. Thomas Nelson & Sons.

This book, written by a group associated with atomic research in the U. S. Army and Navy, is an attempt to co-ordinate some of the problems of atomic energy related to medicine that are unfamiliar to the medical profession. This book will be of particular interest to the specialist in the field of radiation. The introductory chapters deal with the physics of atomic structure, atomic piles, fission and the biology of ionizing radiation, and although they are quite elementary, they could be even more explanatory for fuller understanding by the average reader. The sections on the pathology of body irradition, the hematology of ionizing radiation, atomic disaster planning and radio active isotopes are of more practical interest to the general physician and surgeon and are worth perusing.

The remaining sections deal with the technical laboratory problems in handling active materials and are of more interest to the researcher in this phase of medicine.

—P. H. S.

WANTED

MEDICAL DOCTOR as Executive Secretary of the B. C. Division Canadian Cancer Society. Applications should be directed to:

The President,
B. C. Division,
Canadian Cancer Society,
2676 Heather Street,
Vancouver, B. C.

and should state qualifications, experience, and salary expected.

PROGRAMME

DR. CECIL J. WATSON

Professor of Medicine and Head of the Department of Medicine, University of Minnesota; Chief of the Medical Service, University Hospitals, Minneapolis.

VISITING CHIEF, DEPARTMENT OF MEDICINE
THE VANCOUVER GENERAL HOSPITAL
MARCH 27th - 31st, 1950

MONDAY, MARCH 27th

8:30 to 10:00 a.m.—Ward Walk, Ward "A". Dr. D. S. Munroe, Dr. T. K. MacLean, Dr. H. Scott.

12:15 p.m.—Surgical Clinic. Dr. J. R. Neilson, Chief, Lecture Hall, Main Building.

2:00 p.m.—Conference with the Resident and Assistant Residents re material for clinical meetings.

6:30 p.m.—Private Dinner.

TUESDAY, MARCH 28th

8:30 to 10:00 a.m.—Ward Walk, Ward "B". Dr. W. W. Simpson, Dr. J. C. Moscovich, Dr. J. A. G. Reid.

10:30 to 12:00 noon—Staff Meeting of Cancer Institute. Arranged by Dr. A. M. Evans. Conference Room, Cancer Institute.

12:15 p.m.—Luncheon. Faculty Club, University of British Columbia. Arranged by Dr. M. M. Weaver, Dean of the Medical School.

2:15 p.m.—Clinical Conference. Dr. Cecil J. Watson. Subject: "Pulmonary Infarction." Lecture Hall, Main Building.

6:00 p.m. — Dinner with Executive Committee, Vancouver Medical Association, Salon "E", Hotel Vancouver.

8:15 p.m.—Special Meeting, Vancouver Medical Association. Dr. Cecil J. Watson. Subject: "Some Fundamental and Clinical Aspects of the Problem of Hepatic Cirrlosis." Auditorium, British Columbia Institute of Tuberculosis.

WEDNESDAY, MARCH 29th

9:00 a.m. to 10:00 a.m.—Clinical Pathological Conference, Chairman: Dr. R. E. McKechnie, Pathologist: Dr. H. K. Fidler. Discussion opened by Dr. Cecil J. Watson. Lecture Hall, Main Building.

Wednesday, March 29th—Continued:

10:30 a.m.—Medical Clinic. Chairman: Dr. M. M. Baird. Lecture Hall, Shaughnessy Hospital.

11:30 a.m.—Pathological Conference.

12:30 p.m. — Luncheon, Shaughnessy Hospital.

2:15 p.m.—Clinical Conference. Dr. Cecil J. Watson. Subject: "Pigment Metabolism." Lecture Hall, Main Building.

6:30 p.m.—Private Dinner.

THURSDAY, MARCH 30th

9:00 a.m.—Medical Clinic, Dr. Cecil J. Watson, Visiting Chief. Lecture Hall, Main Building.

10:30 to 12:00 noon—Joint Clinical Conference, Department of Tuberculosis, Department of Venereal Disease Control, Lecture Hall, Main Building.

12:30 p.m.—Luncheon. Health Centre for Children. Arranged by Dr. Donald Paterson. Afternoon free.

8:15 p.m.—Special Meeting, Attending Staff, The Vancouver General Hospital. Dr. Cecil J. Watson. Subject: "The Problem of the Bedside Diagnosis of Jaundice and Liver Disease." Chairman: Dr. D. S. Munroe. Auditorium, British Columbia Institute of Tuberculosis.

FRIDAY, MARCH 31st

9:00 a.m.—Paediatric Clinic, Dr. J. R. Davies, Chief. Lecture Hall, Main Building.

10:00 a.m.—Hematology O.P.D. Clinic. Dr. A. M. Johnson, Lecture Hall, Main Building.

12:30 p.m.—Luncheon. Seniors, Attending Staff, Department of Medicine. Board Room, The Vancouver General Hospital.

2:30 p.m. — Concluding Lecture for Resident and Interne Staff. Dr. Cecil J. Watson. Lecture Hall, Main Building.

QUID PRO QUO IN MEDICAL EDUCATION

M. M. WEAVER, M.D.
Dean of Medical Faculty
University of B. C.

The Vancouver Medical Association last year entered upon its second half century of existence. Its first fifty years have been filled with distinguished accomplishments—in the service of the community, the medical profession, and the entire Province of British Columbia. Last year's occasion called for well-justified jubilation and it is the speaker's personal loss not to have been at that time a member of this group and to have shared in the happy proceedings. It has been possible, however, to share belatedly in these pleasures, through the commemorative booklet which was issued as part of the celebration.

It was gratifying, indeed, to note the selection of the epitaph on Sir Christopher Wren's tomb in St. Paul's Cathedral to grace the cover of the Golden Jubilee volume, "Si Quaeris Monumentum Circumspice"—If you are seeking a monument, look around you—and this called to mind one tribute to the intellectual energy and scientific curiosity of this great man which may not be known to all here and which has some bearing upon the development of modern practice. It was Sir Christopher, in collaboration with Boyle and Wilkins, who first injected opium and other medicinal substances into the veins of dogs (1658). This pioneered, if you will, the application for human benefit of the knowledge of the circulation of the blood which has been elucidated by William Harvey but a few years previously. Well within a decade, the first successful intravenous injections were to be made in man. Sir Christopher's venture into biologic science and the resulting contribution to basic knowledge in medicine should be remembered with no less respect than his design of the great Cathedral, the fifty churches, and the many public buildings of London.

Many features of the Jubilee booklet have stirred me to respectful contemplation of the history of this Association. Among the names of its early members, I found that of the late Dr. Glen Campbell whose courtly welcome to medical circles in British Columbia the speaker will never forget. It was shortly after my arrival in Vancouver last summer that I received a telephone call from Dr. Campbell to suggest that he pay a call upon me in my office at the University. With no knowledge of the doctor's age, his health, or the distance he would have to come across the city for this visit, I acquiesced. In retrospect, it is obvious how far more appropriate it would have been had I visited Dr. Campbell at his home. The doctor chatted for an hour or so, mentioning in casual fashion that his health had not been of the best, but concentrating upon what I now realize to have been a special message he wished to convey. It was that the physicians of his generation had never allowed the vision to grow dim that Vancouver should one day be an outstanding centre for medical education in Western Canada. Like so many ideals, the cherished ambition of such medical leaders as Drs. W. D. Keith, H. W. Riggs, W. D. Burnett, R. E. McKechnie, P. McLennan, H. H. McIntosh, and L. McMillan, as well as Dr. Campbell, had had setbacks over the years. On one occasion, the boat was missed completely, although this is not meant to detract from the well-earned good fortune of our neighbours to the East who were able to start their Faculty of Medicine as a result.

But Dr. Campbell wasted no time in lamenting what might have been. He was concerned solely that the Medical School of the University of British Columbia shall proceed to make up for lost time and shall rapidly earn a widespread reputation for the quality of the physicians it produces, the excellence of the research which must be carried on in its laboratories, and the contributions it should make in improving medical care and public health throughout this area.

I envy you the opportunity many of you had to know Dr. J. M. Pearson, whose interest to have a vital Association was so great that he went from office to office of the handful of doctors of Vancouver, enrolling them as members, and enlisting their participation in the scientific programmes which are essential for the professional and intel-

lectual growth of a medical society. The mental picture of Dr. Pearson, "trudging from doctor's office to doctor's office," reminds me, indeed, of the description Dr. Harvey Cushing has given us of Dr. William Osler's visits to the old Blockley Hospital during his Philadelphia period. As we know, Sir William never missed the opportunity to participate in a post-mortem examination. Eschewing the street cars and without a personal carriage during that period, he would walk considerable distances across Philadelphia to attend these functions at the Hospital and to teach his students at the autopsy table.

Interesting indeed it was to me to discover that Dr. Osler subscribed $100 to the fund for a medical library in Vancouver. This was being planned for a city which he was never to visit. It is evidence, not only to his generosity to his fellow physicians, but also to his oft-repeated conviction that without "observing, recording, and tabulating," and without the opportunity to learn through medical writing about the similar efforts of other investigators, medicine cannot progress. Our hats should be doffed to Dr. W. D. Keith who is with us tonight. He assisted Dr. Pearson in his negotiations with other medical libraries for a nucleus of bound volumes and in his approach to potential contributors to the library fund.

It would require too much time to pay adequate tribute to the spirit of service which prompted the founding, in order, of St. Paul's Hospital, the Vancouver General Hospital, and of the other hospitals in this area, or to the services of the many far-sighted medical men of Vancouver, other than those I have passed over too fleetingly. In some cases the lives and works of the latter are perpetuated through their physician-sons who are practicing in this city.

In the fifty years or a little more during which Vancouver has grown from a town of 24,000 inhabitants to an impressive city of nearly one-half million people, a technological age has flowered. In 1900, a gainfully occupied adult obtained 10 percent of the things he required through physical labour, 50 percent through the work of domestic animals, and 40 percent through the output of machines. It has been predicted that by 1960 only 3 percent of the products of men in progressive nations will be through their physical labour, 1 percent will be obtained through the work of domestic animals, and 96 percent will be the output of machines. With all the changes in our modern way of life, the profession of medicine has maintained its pre-eminence in the public mind.

Last year a study was published at the University of Minnesota entitled, "Changes in Social Status of Occupations."[2] Maethel Deeg and Donald Paterson questioned a group of University students in a fashion similar to that reported by a previous author twenty-one years earlier. They chose a sample consisting of 475 students from various colleges and divisions of the University, and from local high schools. The results were sufficiently interesting to justify reproduction here:

Comparison of Social Status Ranks of Twenty-Five Occupations Obtained in 1925 and in 1946

	Rank Order (counts, 1925)	Rank Order Deeg and Paterson 1946)
Banker	1	2.5
Physician	2	1
Lawyer	3	2.5
Supt. of Schools	4	4
Civil Engineer	5	5
Army Captain	6	6
Foreign Missionary	7	7
Elem. School Teacher	8	8
Farmer	9	12
Machinist	10	9
Travelling Salesman	11	16

Grocer	12	13
Electrician	13	11
Insurance Agent	14	10
Mail Carrier	15	14
Carpenter	16	15
Soldier	17	19
Plumber	18	17
Motorman	19	18
Barber	20	20
Truck Driver	21	21.5
Coal Miner	22	21.5
Janitor	23	23
Hod Carrier	24	24
Ditch Digger	25	25

The fact seems clear that more of our young people aspire to careers in medicine than in any other vocation.

What are the opportunities for fulfilment of these aspirations? The situation is well-known to all present. Each year in Canada and the United States there are something over one hundred thousand applications made for admission to the medical schools. This past fall (1949) there was 88,810[3] applications submitted to the medical schools in the United States. Not less than 10,000 applications were filed in Canada. These applications represented about thirty thousand individuals, owing to duplicate applications. There are approximately seven thousand places to be awarded to first-year students in medicine in the two countries. This means that about one out of four applicants could be admitted. Of the disappointed three-fourths of the applicants, a minority, perhaps ten percent, may eventually achieve admission at a later date.

The situation is far different from that which existed even just before the war Dr. J. H. Means,[4] Jackson Professor of Clinical Medicine at Harvard Medical School, recently reminisced in the course of a guest lecture about conditions when he entered upon his medical studies. "To get into a medical school, all you needed to do was to procure an A.B. or S.B. degree, and then go around the day the school opened, and sign on. Even on that easy basis my class at Harvard Medical School had only ninety-six members. At the present time there are here (New York University College of Medicine) several thousand applicants for one hundred and twenty-five places." The same situation exists at McGill University and the University of Toronto Faculties of Medicine, as we are well aware.

It might well be thought time to consider whether a greater output of doctors should be guaranteed through the opening of additional schools of medicine in Canada and the United States. It is my understanding that considerable support has developed in England for offering a medical education to each and every aspirant who has passed the necessary preliminary examinations. There is no denying that there is a shortage of physicians for some tasks and in some localities. The acute discrepancy between supply and demand has been alleviated considerably since returned medical officers have resumed or have entered the practicing profession. However, I am not unmindful of the statement of a former Dean of Medicine[5] in the States about fifteen years ago:

"The question of overproduction of doctors is of the greatest importance to medical students, to the medical profession, to the maintenance of standards of ethical practice and to the public welfare. I contend that there are already too many doctors, even if they were properly distributed and even if their services were available to all people, neither of which contingencies is true nor is likely to be true under modern conditions. If it is claimed that competition is the life of trade, I retort that competition may be the death of a profession."

To return to the approximately seven thousand successful applicants to our medical colleges, a heavy responsibility rests upon the admitting officers of these institutions. There is the obligation to make the wisest judgement possible about who is properly possessed of the qualities desirable in a physician, and there must be a thorough inquiry

into the strength of motivation for a medical career, stamina, and physical capacities, as well as the scholastic records of the applicants. From the standpoint of the borderline candidate, the economic implications of choice are inescapable. Of the two individuals who may appear before the Screening Committee when the last place is to be awarded, the successful applicant is likely destined to earn a better livelihood than will his unsuccessful classmate. Yet, which will be the more generous person with his professional services, and will most faithfully serve the general welfare of his community? Which will have, in the words of Robert Louis Stevenson, "be thought to have shared as little as any in the defects of the period, and most notably exhibited the virtues of the race?"

A medical education is expensive to provide, as Dr. F. Cyril James,[6] Principal and Vice-Chancellor of McGill University, pointed out to the assembled Deans of the Medical Faculties of Canada recently. The cost per year per student to the medical colleges of the United States ranges from $735 to an almost unbelievable $9,500, according to the Chancellor. This is quite apart from whatever the student pays in fees. The average cost of training a doctor in Canada is somewhere between the extremes which have been cited, and, in all probability, the Canadian medical colleges apply from their own funds approximately three dollars for every dollar which is paid in by the registrant in medicine. The medical course costs the Province and the University from one-third more to several times as much as the education of a student in law or engineering, and from twice to twenty times as much as it does to provide a four-year course in science or the arts. The medical graduate today leaves his medical school obligated to society, not alone for the trust and respect to be accorded him, for the relative financial security which will be his lot, but also for the financial outlay which was made in his behalf. This will be even truer when, as is almost inevitable, Federal aid to the medical colleges becomes a reality.

I have a reprint from the pen of a lawyer, entitled, "Justice and the Future of Medicine,"[7] and I have read it a good many times since the article first appeared. My interest in this lawyer's opinion is not especially related to the fact that he was one of "the small group of wilful men" who instituted the anti-trust suit of the United States against the American Medical Association. This occasion, as many in this room will recall, was a boycott by the Medical Society of the District of Columbia of certain physicians employed under a group health plan, and the resulting trial reiterated some legal principles concerned with medical practice.

The Society had expelled one physician, forced a second to break his contract, and had denied hospital facilities to their patients. There was not any question of medical orthodoxy or of medical competence. As Mr. Wendell Berge stated, in giving this paper before the American Urological Association on June 21st, 1944, had the question been a choice between two out of many ways of organizing medical service, it might have been hard to make a proper decision about which was the more desirable. The issue was simply between two rival plans for bringing doctors and patients together. The tactics of the one group were illegal in trying to prevent the other group from proving or disproving its case.

In the words of Mr. Berge: "As the case went forward, this notion of medicine as the instrument of the common health was the Government's mainstay. Again and again we had occasion to recite the public character of the physician's office. There was a time when an association of doctors acted with the delegated authority of the State itself. The Royal Society of Physicians held a charter from the English Crown which conferred upon it the right to license, to discipline its own members, to search for and to seize illegal drugs, and otherwise act as a corporate body to secure the common health. When, much later, Congress issued a charter to the Medical Society of the District of Columbia, it described its rights and obligations in words almost identical with the charter of the Royal Society. However, it was careful to withhold from the new medical society all economic power over its members. It refused to confer upon it authority to fix any schedule of fees for service. And to clinch the matter, it stated that the privilege accorded was for scientific and education and for *no other purpose* whatever."

These are times which are trying to all. It is most difficult to cultivate and maintain the equanimity and imperturability which were prescribed for the profession by Sir William Osler. The physician is a public servant, by tradition, by legal definition and through the means by which he obtained his professional education. His is the initiative to give constructive guidance in the future arrangements for payment of medical care, and he must accept it. Because of tradition, he has hereto shunned such subjects as medicial economics. Evidence is now at hand that physicians have the ability to provide the right answers on large, comprehensive projects of medical care as contrasted with individual physician-patient financial relations.

It will be a remarkable *milieu* into which our young doctor will graduate five years hence, compared with that which confronted his father. He will come upon an economic scene in which it will take the man in the street five minutes or less to earn a pound of bread, or thirty minutes or so to earn a pound of beef, according to present indications. In this he will be quite fortunate as a resident of Australia, Canada, or the United States, since nowhere else in the world will his advantage in breadwinning be so favourable. To be sure, he will have to work two or three hours out of the day to pay his taxes, but this situation he can view with a certain equanimity, inasmuch as a considerable portion of his payment will be a lien against the future productivity of his country when he retires, is too ill to work, or must leave behind him dependents who cannot fend effectively for themselves.

However, Mr. Average Citizen will have other problems to deal with besides his family's budget for food, shelter, clothing, taxes, insurance and recreation. An important bearing upon the future of the practice of medicine will be how many hours the man in the street has to work to pay for a visit to his doctor's office, to consult his specialist, or to have an operation. Something of this fact was contained in the section on the cost of medical care in your Jubilee volume. It is certainly true that a home, or office, or hospital call upon a sick patient is ever so much more valuable to that individual than it usel to be, and that the physician's income, compared to income in the trades or even the more lucretive white collar occupations, is not disproportionately greater than it was a generation ago. Irrespective of this, it is most important that here are many people, totalling, perhaps, one-third of the population, who do no command a high wage scale or a good salary. One of their greatest needs is for an orderly method of payment for medical care through application of the insurance pinciple. It is the resolution of the problem of providing medical care for this group that one needs firmly to set aside much of the romantic quality which has been stressed by those who, in the past, have dealt with the history of medicine.

You are quite familiar, I am sure, with the series of monographs, prepared by the New York Academy of Medicine, entitled "Medicine in the Changing Order." This series, recently completed and consisting of fourteen titles, has dealt with such subjcts as hospitals, health insurance, medical research and medical education. It is from "Medical Practice in the Perspective of a Century"[8] that I quote one statement found in the preface.

"When the heroes of medicine and the miracles of its achievements are treated outside the frame of their contemporary world, they must perforce appear like meteoric phenomena. Moreover, such disarticulated treatment is a serious handicap to the earnest student who seeks in the story of the past illuminations of the present and some guidance to the future. What is wanted is not a romantic histroy of medicine, but rather an historical exposition of the reciprocal interplay between the social, technological, and economic forces and medicine."

A feature of recent medical history which must inevitably be stressed to the medical students in our Faculty of Medicine is the remarkable development of the facilities to properly distribute medical care and to arrange to pay for it. The physician-president of one of our neighbouring universities has summarized the principle which lies behind this added subject matter in the medical curriculum as follows:

"Medicine, with its age-old concern for the sick—the poor as well as the rich, the weak as well as the strong—has been an influence for good surpassed only by religion.

The services of medicine, like those of religion, have been largely personal. While there will always be need for personal services, medicine of the future, if it is to progress as a social as well as a biological science must broaden its outlook and adjust its education programme accordingly."

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SYMPOSIUM
HOSPITAL INSURANCE—WHITHER BOUND?

Dr. J. C. Thomas, Dr. Frank Turnbull, Dr. McCoy.
Given Before the Vancouver Board of Trade.

February 15th, 1950

DR. J. C. THOMAS.

Mr. Chairman, members of the Board of Trade, and Guests:

As the first speaker on this panel today, may I express our appreciation of the honour you have done us by inviting the medical profession to come here and discuss what is in reality our mutual interest in the subject of prepaid health care. If members of our profession seem to be somewhat reluctant to appear as guest speakers, please remember that it is due to a tradition in our code of ethics which has looked with disfavour upon personal advertising by doctors. However, I can assure you that the speakers today appear before you without fear of violating these traditions.

It is our purpose to commence with a broad outline of the various kinds of prepaid health care which have been introduced and continue with a more detailed discussion of hospital insurance and prepaid medical care. Some plans are referred to as a matter of history to show the gradual development of our present situation.

In the early days of this province during the years of development and construction, the need for health services was recognized as a vital part of each project. The camp hospital and company doctor were and still are, a part of any plan for development in our own areas. Often this was purely a company project at the beginning and the cost was met by both company and workmen contributing. As the community grew, the hospital was taken over and the doctor looked after the employees and their dependents on a contract basis, the remainder being private patients. Premiums were collected by employee associations or by payroll deductions according to some mutual agreement.

During the early thirties when voluntary hospital boards were faced with mounting deficits, due to poor collection of accounts, various communities adopted a scheme of voluntary prepaid plans to obviate these deficits. Blue Cross entered this field selling coverage to employee groups with certain restrictions in the length of time benefits could be obtained and in the extent of coverage. Rising hospital costs made it necessary to increase premium rates and restrict services paid for by the plans.

About the same time contracts were made by employee groups with certain doctors for prepaid medical care. There was a wide variation in the rates charged and in the

degree of coverage. Most of these plans were able to operate because they contracted with one or more of the local doctors and only covered acute conditions. Elective work, industrial accidents, chronic diseases and those diseases treated by government services were excluded or paid for by the insured at agreed rates.

Casualty Insurance carriers expanded rapidly by offering sickness and non-industrial accident coverage together with loss of time benefits. You are all familiar with the history of these plans and their operations. The benefits offered and the too-often disputed claims due to waiting periods and exclusions were some of the reasons for government enquiry into their operations.

Meanwhile in 1936, the provincial government introduced a health insurance bill under which the terms of service were never agreed to by the doctors. As a result of this disagreement the bill was not proclaimed nor put into effect.

Today in British Columbia we have in operation several government sponsored plans for prepaid health services. The Workmen's Compensation Act has provided medical and hospital care and time loss benefits for injured workmen for over 30 years. This, as you know, is financed by yearly assessments according to experience rating and is supported entirely by industry through employer and employee contributions.

The Department of Veterans Affairs provides medical and hospital care for veterans according to certain rules for eligibility laid down by the Department. This is a department of the federal government paid for from federal tax revenues.

Similarly the Department of Indian Affairs provides for the care of Indians. Both medical and hospital care are provided by contracting with voluntary hospitals and physicians in private practice to do this work usually on a part-time basis.

The Department of Health has provided treatment and diagnostic centres for venereal diseases, tuberculosis and cancer. These services began as a public health measure in the case of V.D. and T.B. to control spread of infection, thereby hoping to eliminate them. Today we find cancer clinics being sponsored by the B. C. Cancer Foundation and financed by public subscription and government grants. Where the patient cannot pay for necessary diagnostic investigation and treatment, these services are provided in the same manner as for those who can.

Also we have the public health services provided by our provincial and local boards of health. Each unit is staffed by doctors, nurses, social workers, sanitary inspectors, who make sure that the people in their respective communities are protected from such health hazards as communicable diseases, contaminated food and water supplies, sewage, unsanitary housing, contamination of our beaches, poor nutrition. This is called preventative medicine. This service carries on an active campaign to educate the people in all health matters in the home, the school and in industry.

There is also the tremendous problem of mental illness which is handled largely by the provincial hospital service. Custodial care and treatment facilities are provided by the provincial government as well as travelling clinics for diagnosis. One gets a better perspective of the size of this problem when we realize that there are as many mental hospital beds in Canada as there are general hospital beds.

The most recent plan in providing prepaid medical care is the Social Assistance Medical Service. By agreement government pay an annual per capita grant to the medical profession of B. C. for each person receiving any form of social assistance. The payment for service is carried out by the doctors on a fee for service basis with prorating of accounts because the capitation fee has been adequate to pay only 65% of the cost of services rendered. This you will agree is a distinct improvement in the medical care of the less fortunate whose pride too often kept them from accepting anything but the most urgent services in the past, although the medical profession has always accepted this type of care as a part of its responsibility in every community.

This brief description of many forms of prepaid health care will show how far we have progressed along the road to socialization of health care. One hears the word "free" used very frequently with regard to health services. This is very misleading,

for we must all realize that these services were not given but merely prepaid either by the direct beneficiaries, the employer, or from government funds. The government is not a producer. The government cannot give you anything. The government can only give back to you that which it first took away, money is spent in the process of taking it away, and money is spent in the process of giving it back, so you always get back less than you gave. Cost is not the only thing we must consider. There has been a definite doctor-patient relationship which is a vital part of successful medical care. The introduction of a third party threatens this. In order to control costs information must be supplied to the party paying the bills or some restrictions may have to be placed on the free choice of doctor by the patient.

Many of you are familiar with the statement of policy adopted by the Canadian Medical Association. I quote in part:

"It is recognized and accepted that the community's responsibility in the field of health includes responsibility not only for a high level of environmental conditions and an efficient preventive service, but a responsibility for ensuring that adequate medical facilities are available to every member of the community whether or not he can afford the full cost."

"Accordingly, the C.M.A. will gladly cooperate in the preparation of detailed schemes which have as their object the removal of any barriers which exist between the people and the medical services they need."

"Th C.M.A. has approved the adoption of the insurance principle."

Applying this to our present situation, I should like to point out that we believe the medical profession of British Columbia has cooperated and will continue to cooperate with the people in our earnest endeavour to bring health services to every member of the community. Let us proceed by evolution rather than revolution.

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DR. FRANK TURNBULL

A Sister in one of our large provincial hospitals recently remarked that it is easier to get into heaven than to find a hospital bed for a patient with chronic disease. The reverend Sister did not realize the difficulties that some of us might experience with admission standards at the Pearly Gates. But she did make her point. Hospital beds are at a premium.

In the 1930's it was standard hospital practice to regard 80% bed occupancy as a full house. Twenty persent of the beds were kept empty to allow an easy turnover, and to cope with major disasters. Nowadays, bed occupancy starts at 100%. Extra beds are the rule in most wards. Some of our hospitals have beds in the corridors.

The responsibility for general hospital services is divided between provincial and municipal authorities. In theory the division of responsibility is well defined. In practice it allows a great deal of "passing the buck."

Prior to the introduction of Hospital Insurance the position was reasonably clear. Private groups or municipalities initiated plans for all new general hospitals. They sometimes obtained large grants for construction and equipment from the Provincial Government. The expenses of operation were a private or municipal responsibility. Most general hospitals had an annual deficit. The city of Vancouver paid approximately one-half million dollars annually to cover the deficit of the General Hospital during the middle forties. The rates that were paid by the patients did not cover the cost of operation by that much. Tax money, collected by the City, made up the difference.

When hospital insurance was introduced the rates were advanced to their true level. The Hospital Insurance Fund now pays the hospital the full cost of operation at ward rates for all insured patients. Non-insured patients pay the new full rate . Patients in semi-private or private rooms pay enough to cover the extra service that they receive. So, in theory our hospitals are now solvent. The money for their operation still comes out of our pockets, but travels a different route.

This is the over-simplified point of view that the Minister has advanced on frequent occasions. He has taken great pains to point out that the Hospital Insurance Fund was

only set up to pay the bills of those who can obtain hospital services. With injured innocence he disclaims responsibility for chaos that has developed because of increased demand for services that were already over-strained. Patients who suffer inconvenience or interminable delay cannot be blamed for assuming that the Provincial Government which initiated this project should accept responsibility for the provision of service.

Unfortunately, for both the government and the public, there has been a precipitate increase in the cost of hospital service during the past few years. Most of this increase in cost has resulted from rise in wages, cost of food, etc. Efforts to control the rising costs have intensified a trend that seemed inevitable from the start, i.e. more and more direction and control of hospital activities from H.Q. in Victoria. Indeed, the Minister has recently threatened, by public speech, that unless certain Hospital Boards mended their ways, the government would be forced to take over—a sort of protective invasion.'

And now the Plan is in trouble. 'Experts' have been called in, to re-organize administrative activities and advise about future management. A new commissioner has been appointed. I suggest, with due respect to the Minister, that this would be an appropriate time to reconsider the conception and structure of the Act itself.

Some of the shortcomings, and also some of the potential advantages, of the Hospital Insurance Act, become apparent if one accepts it as an experiment in government. Universal contributory hospital insurance with premiums that are estimated to cover total costs, is a unique venture. The Saskatchewan scheme is universal and contributory, but from the beginning the Saskatchewan government has contributed an unknown amount from the Provincial Treasury. There are State Hospital Insurance schemes in other countries, but standards of living, methods of hospital practice, etc., are so different that no exact comparison can be made. It is obviously in the best interest of everyone to work out a plan that fits the local scene. In that sense—the sense of being untried and unproven, we may regard the Act as an experiment.

The prelude to any successful experiment is a question or a series of questions. One question that would have suggested itself before this experiment is: "How far can Hospital Insurance be carried before it becomes too great an economic burden to the community?" Dozens of other pertinent questions could be framed but let us stop at that one for a moment.

There is hardly any practical limit to the amount that could be spent on hospital facilities and operation if unlimited funds were available. Without great difficulty any enthusiastic hospital planner could set up plans that would double the present cost, and a really imaginative fellow could go much further.

Let us take just one more question from the pile: "How far can one carry increased centralization of authority in Victoria without losing the reservoir of voluntary, valuable service that is now represented by local boards of management?" Well, how far?

I have brought forward these two questions to emphasize that the introduction of universal Hospital Insurance has created a number of new and difficult community problems. These problems have been obscured during the first year of operation, because public and official attention has been focused on inefficiencies of business administration. It is apparent that the new Commissioner and his two senior assistants have been chosen to achieve business efficiency, and to that end we wish them every success. Efficient administration, by itself, will not accomplish the full purpose of the Act, nor prevent it from foundering again.

Hospital Insurance starts with the simple premise that pre-paid insurance against the costs of hospital care is in the best interest of all. But its application requires the development of policies and the continuous reshaping of policies that are complex and that have wide implications. One would have to be an incurable optimist to expect that a solitary Commissioner could direct this vast business, and at the same time wisely interpret the desires and needs of the community into flexible and workable policies. Our late Commissioner did his level best, but the odds against him were too great.

We presume that administration under the direction of a Commission has been considered, but there has been no public or parliamentary discussion of this alternative

of which I am aware. Administration by commission would not offer a panacea. Success would depend, in part, on how the Commission was set up.

I suggest that our Hospital Insurance would be better under the direction of a non-political, part-time Commission, representing those who pay for hospital benefits, and those who provide the service. The Commission would have access to all pertinent information. They would develop and reshape policies. The chief administrator would come to them with his problems and be buttressed by their support. The members of such a Commission would serve for not more than three years. They would be chosen by virtue of reputation already established as those best fitted to contribute constructive thinking to an important community problem.

No individual or group can hope to make universal contributory Hospital Insurance pay its way or to satisfy every demand for service. By having a part-time Commission to share the responsibilities and criticisms, it might be made workable.

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DR. McCOY

In the approximately twelve minutes allotted to me to discuss prepaid medical care it is impossible to go into very much detail. However, I shall very briefly attempt to show you what principal changes have occurred in the last half century in medical care, making it, as a result, more costly and hence bringing the necessity for some type of medical care budgeting.

I shall then briefly outline various types of prepaid medical care plans which are or have been available in British Columbia and shall conclude by giving you a brief outline of Medical Services Association, the plan sponsored by the doctors of B. C. on a non-profit basis—to give you prepaid medical care.

I would like to mention to you briefly some of the problems that have arisen in the economics of medical care. Practically all of these problems have come from the fact that medical care has increased in quality so rapidly during the first half of the present century—and this great improvement in the quality has brought with it new and weighty problems in the matter of payment for this medical care.

A first well-known factor is that owing to modern advanced methods of treatment people live longer—and are frequently ill for a longer period of time—*e.g.*, twenty years ago when a man had a ruptured appendix he very frequently was dead in two or three days—that was not very expensive. Today, with penicillin, etc., and modern methods of treatment, he practically always lives but frequently it is a long illness and thus needs greater medical costs.

Another of the principal ways in which this cost has risen is in the cost of diagnosis. Forty to fifty years ago there were very few diagnostic aids to apply to a patient other than those the doctor applied himself with his hands, eyes and ears. Perhaps a blood count was done or a broken bone X-rayed. X-ray was just coming into its own and was not very widely used. There were few precise techniques. Very little thorough clinical laboratory work was done. The cost of clinical diagnosis thirty years ago was low and added very little to the cost of medical care of the patient.

Another important item in causing an increase in cost is doctor utilization. Thirty to forty years ago a patient called a doctor only when all their own methods of treatment had failed and as a result many people saw a doctor only once or twice a year—or less. Today in many places, as worked out on a statistical basis, an average of one in ten people see their doctor each month. This is partly due to the fact that doctors are more plentiful, as during the war years this doctor utilization ratio was considerably lower. It should be remarked that in the treatment part of the doctor's services there has been relatively little increase in cost—surprisingly little considering the general increase in prices and the devaluation of the dollar. The fees charged by doctors today—by and large—are not much greater than they were twenty to thirty years ago, although their expenses are doubled. People are prone to think in terms of the over-all cost of an illness,—*e.g.*, hospital, plus doctor's services, plus diagnostic aids, etc.—and they do not

dissect the various components of the cost. Hence doctors are suffering in public relations because of the over-all increase in the cost of medical care, of which their own increase is but a very small and unimportant part.

A fourth problem is the increasing demand by patients for specialist care, whether necessary or not. Specialists, by and large, have trained for a longer period of time in one particular field and as a natural consequence their fees must be higher than those of the general practitioner. People are prone to say, "I have a pain in my side—it may be my appendix. I had better see a surgical specialist in case it has to be removed." However, it may be a kidney infection that he has or a pleurisy—then the surgeon has to refer the patient to another specialist and two or more specialists' fees have then been incurred instead of going to their general practitioner in the first place who might have saved the extra fees. This adds to the over-all cost of medical care.

Bearing these four factors in mind, where, as you can understand, the human element, which varies greatly, plays a large part—one sees some of the complications facing the setting up of a prepaid medical care plan. It might be compared to going out and deciding that the heating of homes which is fairly expensive, should be insured against. As you can realize, if you paid so much per month to someone who guaranteed to supply you with all the coal you needed, I'm sure many of you would shovel the coal on the fire a little more often and you would likely demand the most expensive coal available. As a result the rates would go up the next year. Thus it is very hard to estimate the rate in advance as you can see, and it must rather evolve slowly, which is what we are attempting to do in this province in the matter of prepaid medical care.

I believe we must accept the fact that medical care by prepayment is here to stay. This has been decided by the people in general and the doctors had very little—or nothing—to do with that decision. The chief question now about this medical care prepayment is whether it shall be voluntary or compulsory—free enterprise or socialistic. Many people feel that on a voluntary basis we cannot cover a sufficient number of the people. Various figures have been worked out estimating that somewhere between forty to seventy-five percent of the people could be covered on a voluntary basis. I believe the difference in figures depends mainly on the individual interpretation of the word "voluntary". For instance some companies have so-called voluntary schemes—but one of the conditions of employment with that company is that the employee be covered under the scheme. This naturally results in a much higher percentage of people covered.

On the other hand, many people feel that on a compulsory basis, which usually implies a Government operated programme that costs become excessive as you then have a Government administrative staff to pay as well as paying for the medical care. Also that you tend to get a poorer calibre of medicine practiced—or an assembly-line type of practice—e.g.: in New Zealand which is now stated to have the highest narcotic rate in the world—or in England where to make a good living a doctor must—or may—care for approximately four thousand patients. We feel that a doctor cannot capably look after more than a thousand patients—and even under their set-up in England, costs have become so excessive that they are now considering reducing the services.

With this background in mind, let us come down to what we are doing in B.C. In B.C. and along the Pacific Coast in general, owing to topography and other factors, prepaid medical care in the form of contract practice has been an accepted fact for well over forty years, as Dr. Thomas has already mentioned to you. In spite of all the abuses contract practice encourages, it has provided much better medical care for large percentages of people than would otherwise have been available. With changing times and the opening up of our country—with modern transportation, etc., we now feel that better plans of prepayment for medical care than contract practice are feasible, better from both: 1. the patient's standpoint — offering free choice of doctor and all available medical aids and 2. The standpoint of those rendering the services—offering a more equitable return for investment and services. What the people rally want and what we feel they should be able to obtain is (1) Free choice of doctor when they want him and, (2) to have his fees paid in full.

Organized medicine in B. C. placed itself on record in 1935 as favouring some plan of contributory health insurance which would be fair to all concerned and preserve adequate standards of service and remuneration.

During the past ten to fifteen years we have seen the growth and in many cases the fall, of many schemes in this Province—all on a voluntary basis. A few of these are so-called contracts which in return for a premium paid in advance pay for the medical service rendered. Examples of these are M.S.A., B.C. Teachers', Vancouver Teachers' M.S.A., B.C. Telephone M.S.A., etc These are non-profit organizations and are approved by the College of Physicians and Surgeons of B.C.

There are many more of the indemnity type of insurance companies or health and accident associations or societies. They accept a premium and then pay for medical service according to their own rates or fee schedules. This very often does not conform with the minimum fee schedule in force in the Province and hence, leads to many misunderstandings and much discontent among the subscribers, but this can be traced mainly to the fact that people do buy policies without reading or attempting to find out what they are buying. They know what they think it should cover—but wishful thinking often is far removed from actual fact.

In 1940, as an attempt to answer this demand for pre-paid medical care, the Economics Committeee of the College of Physicians and Surgeons of B. C. brought into being the M.S.A.—registered under the Societies Act of B.C., a non profit organization, originally backed by the personal bond of a good number of our medical men. This organization has grown quite rapidly particularly during the last three to four years and is now recognized as one of the best—if not the best— of such schemes on the North American continent. At the present time, approximately one in ten persons in B.C. is covered under M.S.A., and except for two or three very minor exclusions, it offers a complete medical care coverage at a very moderate rate.

The membership of M.S.A. is composed of three classes—1. Professional members. Any qualified physician and surgeon registered under the Medical Act of B.C. becomes a professional member by agreeing to the Constitution and By-laws of the Organization. 2. Employer members—It is with the employer member of each group that a master contract is written. It is his responsibility to maintain coverage of his group at the level of 75% or greater—thus assuring soundness to the plan. (If this were not done and the percentage dropped lower, it is quite conceivable that soon, mainly sick ones would insure thus giving increased expense to the system and hence increasing costs and thus raising rates). In most cases the employer contributes 50% of the cost on behalf of his employees. 3. Employee members being those who receive the medical benefits, and their dependents. There is a board of eight directors which runs the affairs of the Association. This board is composed of two employer representatives, two professional representatives and four employee representatives. These directors serve without remuneration.

One should make it clear at this point that M.S.A. is a group coverage plan. Only groups of ten employees or 75% of the total employees of a common employer — whichever is greater, may be enrolled. This is necessary to insure an average coverage as you will all understand, to avoid becoming burdened with individuals or small sized groups who are poor risks. This is one of the basic requirements of a group plan. Coverage of individuals for prepaid medical care on a voluntary basis is actuarily an entirely different problem and in my opinion, would require a separate and much more costly administration.

As mentioned previously, M.S.A. is the most comprehensive plan of providing the services of Physicians and Surgeons of which I am aware. Payment is made for their services only and medicines are not supplied—refractions are not included. As physiotherapy is usually performed by persons other than physicians and surgeons themselves, it is not included. Services for injuries covered under the Workmen's Compensation Act and services supplied by Public Health Authorities are of course not duplicated. On the effective date of the master contract the employee has immediate coverage. There are no riders excluding pre-existing conditions—the usual waiting period of nine months

for maternity benefits is in effect, of course, but there is also applicable extended maternity benefit. That is, maternity cases receive benefits until confinement, if the pregnancy commenced during the period of contract coverage. Periodic health examinations are not included.

Hence, as you can see, M.S.A. offers a complete average at a very fair rate. This rate has gradually been worked out over the ten year period. As you may readily understand, some people tend to take advantage of a scheme such as this, and if a few in a company start doing so, it is a practice that tends to spread. e.g.—demanding that the doctor always maks housecalls when the patient could go to the office perfectly well; or demanding that they see a doctor for every little ache and pain. This in turn increases the cost of M.S.A. but as the directors felt that it was not fair to punish those who tried to play ball and who demanded care only as they would have demanded it if they had been paying it themselves, the system of "experience rating" was introduced. This means that costs are worked out for each group individually and if one group, or several members of one group are demanding excessive service then the rates for that group are adjusted accordingly and consequently if they demand more than average service, they must pay more than average rates.

In conclusion, you can see that from the foregoing report that we are gradually evolving a scheme in the Province of B. C. that is good. However, as you should realize, this must come slowly. M.S.A. has now been operating ten years and gradually improving and we have confidence that medicine—if given a chance—can find the way out of the conditions that prevail, and out of the turmoil in which we live today—as it has found the way for more than three thousand years. On the North American continent at least, medicine has come today to the highest point that has ever been reached by medicine in the world—at any time—and we feel that we should do all that we can to maintain conditions so that this progress may continue.

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ACTH AND CORTISONE

It is with great pleasure that we publish the two following notes on ACTH and Cortisone, which formed the subject of an address before the Vancouver Medical Association, by Prof. J. S. L. Browne, of McGill, on February 15the.

The two sets of notes are admirably complementary to each other. Dr. Skinner, of Vancouver, took full notes of the matter of the address, while Dr. D. E. H. Cleveland took equally adequate cognizance of the manner in which it was delivered. We feel that our readers will agree with the Editor that this makes an excellent combination.—Ed.

By DR. D. E. H. CLEVELAND

An address on ACTH and Cortisone by Dr. J. S. L. Browne, Professor of Medicine, McGill University, was the occasion of a special meeting of the Vancouver Medical Association in the auditorium of the Chest Institute on February 15th.

Professor Browne spoke for nearly two hours, and it is less extravagant than trite to say that he held his audience spellbound. The address, delivered entirely without notes, was an artistic *tour de force.* As one of his hearers was later overheard to say, it is given to few men once in their life-time to hold the intense interest of an audience on a subject with which none of them are familiar and in which the speaker himself is thoroughly versed. The speaker's enthusiasm in his subject was infectious and inspired speaker and audience alike.

Professor Browne outlined vividly the avenues of approach by which the "steroid" bio-chemists came to the isolation of ACTH and Cortisone and their preparation in sufficient amounts for therapeutic evaluation. The story was not lacking in dramatic interest. None could present this subject better, since the speaker has sustained a leading

part for nearly ten years in this field of investigation, although he modestly refrained from making mention of this. Dr. Browne is a ready hand with the chalk and blackboard, and his rapidly sketched diagrams, and graphic formulae of steroid molecules, admirably served their purpose.

Professor Browne is a physiologist, and like all the great physiologists we can recall he is strongly imbued with the philosophic aspects of his work. For him the values in steroid chemistry research which transcend all others are the new concepts of disease which they have imposed upon him. The study of such substances as ACTH, and Cortisone or its related steroids, which have been found capable of eliciting remarkable physiological response in such variety of apparently unrelated diseases, has thrown new light on the significance of adaptation phenomena exhibited by living structure under the assaults from its environment. This must force one into adopting new viewpoints for observing the morbid changes which we call disease, and will help in surprising ways to explain the "What and Why" of disease. It even finds features in the long-derided humoral hypothesis in which reconciliation with our modern knowledge of microbic phenomena is possible. As the speaker said with simple profundity, "The tubercle bacillus is not tuberculosis nor the pneumococcus pneumonia."

Diseases cannot be labelled neatly and slipped into accurately fitting slots. We had a partial and discomforting presence of this before, yet laboured vainly to jam them in. Now Professor Browne has adumbrated the reasons why our efforts are as unnecessary as futile.

Dr. Browne's exposition was lit by flashes of subtle humour—and sometimes not so subtle. He may dwell on lofty philosophic planes where the mosaics of graphic formulae are moved about with a deft finger and their dangling side-chains attached and detached with ease, certainty and astonishing results, but he still has the common touch. His adaptation of Hamlet's second soliloquy, with which he concluded, was revealing, and deserves quotation here:

"To be, or not to be: that is the question;
Whether 'tis nobler in the mind to suffer
The slings and arrows of outraged stresses,
Or by a stroke to end them all,
To A to C, to T to H.
That is the question."

* * * * *

The audience which listened to Professor Browne was the largest that has ever been present at a Vancouver Medical Association meeting. The applause was altogether unprecedented in its heartiness and prolongation. Among many from whom the writer has gathered impressions, including some whose education has been received at great British, American and Canadian schools, there was a commonly expressed opinion that the address was the finest which the listener had ever heard. It can truly be said that it was nowhere lacking in matter or art.

* * * * *

In the course of his remarks Professor Browne took occasion to decry the newspaper publicity which has unfortunately attended the release of fragments of information concerning ACTH and Cortisone, and their effects on rheumatic diseases and leukaemia, among others. He emphasized the harmfulness of such publicity and the cruel raising of false hopes, which represents these substances as cures, whereas they have not as yet been shown to be such, while there is not even enough of them available to give sustained relief, should it be possible, to a minute fraction of all sufferers.

We therefore have much pleasure in complimenting the *Vancouver Daily Province* in its issue of February 16th, on an excellent presentation of Professor Browne's views and admonitions, and the present situation with regard to the promise and the availability of these substances.

ACTH AND CORTISONE

Summary of lecture by Dr. J. S. L. Browne, 15 February, 1950

By DR. F. L. SKINNER

Dr. Browne first gave a brief resume of historical facts. It had been known for years that if the adrenal cortex was destroyed a condition known as Addison's disease resulted. Second, it was also known that adrenal extract would protect the patient from the effect of the Addison's disease. Third, this had led to extracts from the adrenal which had been fractionated to hunt for different components. Different authors segregated different parts, and they were called by the order in which they were found as Compound A, B, C, D, E, and F. Because of a rumor that had stated in the early days of war that the Germans were enabling their pilots to fly more capably at higher altitudes by feeding them large quantities of adrenal extract, considerable interest in this subject developed in Canada and the United States. There was marked interest in the research in these parts. The various compounds, A to F, had been previously broken down and formed, but at that time were not able to be formed synthetically. With the aid of the Merck Chemical Co., who invested about a quarter of a million dollars in the scheme, compound A was synthesized. This was tried first in Addison's disease as it was thought it would be of marked benefit in that case. After considerable testing, compound A was found to be completely worthless. This would have meant an end to the entire scheme were it not that Dr. Kendall of the Mayo Clinic managed to talk Merck's into attempting to synthesize compound E. This compound, he stated, he knew would be very useful for something but he did not know what use it would have, but he was sure it would be extremely beneficial. He was sufficiently convincing that Merck's agreed to put in another several hundred thousand dollars into attempting to synthesize this. It is noteworthy that this company has invested approximately one million dollars in this research and so far has received nothing in return. The decision to attempt to synthesize it was made about 1946, and by 1948 there was a fair amount of it on hand, and it was decided to try and find of what use it might be.

Next was Dr. Hensh, also of the Mayo Clinic. He had for years been studying rheumatoid arthritis, and had been always hunting for something new to attempt. He had noticed that patients who became pregnant or who developed an acute infection frequently had an improvement temporarily in their rheumatoid arthritis. He was able to prove that this was due apparently to increased adrenal secretions. Therefore as far back as 1941, he had been after his associate, Dr. Kendall, for some of this compound E that he might try it in rheumatoid arthritis. However at that time there was not sufficient available for any testing. In 1948, when larger quantities became available, it was decided to try it in a case of rheumatoid arthritis. Since that time, and to avoid any possible confusion between compound E and vitamin E, as there is no relationship whatsoever between them, the name compound E was changed to Cortisone.

The first case of rheumatoid arthritis who was treated was one who had been bed-ridden for several years. The exact dose was unknown. This was the first time it had ever been tried in a human being. By chance it was decided to give 100 mgm. The result was remarkable. The patient, who had not been out of bed for years, within 3 or 4 days was walking around free of pain and feeling absolutely normal. This being so, it was felt that Cortisone itself was far too hard to produce, and that it would be much more satisfactory if the patient's own adrenal gland could be encouraged to produce this substance.

It had been known for years, through the work of Collip and others, that the pituitary gland had certain hormones which stimulated various fractions of the adrenal glands to secrete their hormone. Several of these pituitary factors had been broken down and finally one was found which was called ACTH, meaning adrenocorticotrophic hormone. It takes four hundred thousand hogs to make one pound of ACTH, so that it is obvious that this will not be readily available at the present time. Armour Labora-

tories decided to make an investigation of this, and have spent considerable sums of money in this regard. It was tried first in rheumatoid arthritis, and in any patient who had normal adrenal glands it was found to be most helpful. Dr. Browne noted that this would seem to be re-proving the ancient Greek "Humoral" theory. He went on to briefly mention the reaction to stresses of the body, giving the adaptation syndrome. That in these adaptation syndromes or alarm reaction, the adrenal response might frequently cause a rise of desoxycorticosterone acetate (DOCA). It was known that giving large doses of DOCA would produce changes similar to those found in periarteritis nodosa, a type of rheumatic fever, or rheumatoid arthritis and similar diseases. These then were called the diseases of adaptation.

The frequent response to various stresses is large quantities of DOCA. Therefore if Cortisone was not available in large quantities, and since ACTH was somewhat more available, more tests have been done with the latter. However, the method of synthesizing Cortisone which first took 8 months has now been considerably shortened, and it is expected that large quantities of Cortisone will be available at the end of March. Therefore the National Research Council of Canada, in conjunction with other research bodies, is very anxious that projects be undertaken to test the effectiveness of Cortisone and to study its use in many conditions. That is the purpose of Dr. Browne's present trip to give us information in this regard.

Talking about ACTH, some of the affects of it when given in 100 mgm. a day which is the average dose are:

1. Impaired sugar tolerance.
2. Retention of water.
3. Retention of chlorides.
4. Increased uric acid in the urine.
5. Marked fall, to zero, of the circulating eosinophils in the blood.

In regard to this last, if there has been pituitary deficiency and the adrenal has not been receiving stimulation for some considerable time, the reaction may need priming for some little time before it can take place effectively. This last fall in eosinophils then has been used as a test of the adrenal cortical activity—the patient is given some ACTH and then an accurate count of eosiniphils done both before and afterwarde. Also the uric acid in the urine is measured. These two should tell whether the adrenal cortex is working.

ACTH is a protein with a molecular weight of about 28,000. In California it has been hydrolyzed down to the polypeptide stage of only 6 amino aci6ds and found to be still more active. If this can be still further hydrolyzed to two or three amino acids it will be definitely possible to synthesize ACTH, in which case much larger quantities will be available. An excessive dosage of ACTH will give rise to symptoms indistinguishable from Cushing's Syndrome. Usually ACTH results in increase excretion of potassium and may result in increased excretion of sodium, though usually there is retention of this.

Dr. Browne next reviewed the result of ACTH as given at a Congress called by Armour Laboratories where 140 or so scientists who had been working with it gave 10-minute reports on their work. These then discussed several conditions which we will now mention.

Hyperthyroidism—ACTH used in 5 cases. Two cured, three useless.

Malignant Exophthalmos—Used in 1 case with great help. Gives no help in ordinary exophthalmos.

Hypoglycaemia—Of congenital type due to overactive pancreas. ACTH gave marked help and in this case the benefits were considerably prolonged after ACTH was stopped, and in the one year follow-up available there has been no recurrence.

Gout—If people have an acute attack of gout, ACTH will completely arrest the pain and disability and all symptoms within three hours. There is increased formation of uric acid by breakdown of proteins and purine metabolism while ACTH is being given. This is also markedly increased in urinary excretion so that the blood level

probably goes down. When ACTH is stopped either after an acute attack or even in people who have a gouty diathesis but no acute attack, there will usually be an attack of gout resulting shortly after stopping the ACTH, owing to the still large production of uric acid which is then excreted at only the normal rate.

Blood Pressure—DOCA tends to cause hypertension. Cortisone somewhat neutralizes DOCA. In essential hypertension there is, however, very little result. A slight lowering of blood pressure followed in some cases. Also hypertension has followed the giving of ACTH.

Acute Nephritis and Nephrosis—Farnsworth of North Western University did this work. Two children with acute nephritis—initial effect, increased oedema and raised blood pressure. However, these all fell and the clinical picture became completely normal very rapidly. *Nephrosis*—A child of 5 who had been sick for 3 years with remarkably raised NPN, high blood pressure and blood cholesterol of 600. On6 ACTH it was found that there was a temporary increase in oedema (as it is seen ACTH tends to cause water retention). On the 11th day there was sudden diuresis and loss of 20% of body weight. In due course there was complete remission of symptoms.

Lymphoid Tumours—Chronic lymphatic leukemia—patient felt better, glands lessened in size. During the time on ACTH patient felt better, glands reduced in size, white blood count rose at first then fell to normal. There was, in other words, a complete remission. The condition, however, recurred after treatment was stopped. In eosinophilic leukemia there is also marked result during the time of treatment.

Malignancy—There is no evidence of any effect on other malignant tumours.

Arthritis—In rheumatoid arthritis, Still's disease in children, there was marked improvement.

Rheumatic Fever and Rheumatic Carditis—seven out of eight the fever and sed. rate rapidly fell to normal. Pericarditis cleared up. The oedema became temporarily increased, then improved.

It is to be noted that this tendency to lose potassium may give rise to a potassium deficiency and this tendency will be aggravated if ordinary dieuretics are given.

In many disease this was tried with a rapid loss of temperature. It was used in *Dermatomyositis, Periarteritis Nodosa, Ulcerative Colitis*, and other *Collagen* diseases, and was found to be of some help in all of these.

Hypersensitive States—In asthma, 12 were tried. Ten received complete relief of symptoms. It is noted that during the time these people were on ACTH, they could be given many times the normal exciting irritant without an attack of asthma. It was also noted that there was a recurrence of asthma within 4-6 weeks after treatment, and this seemed to be approximately the same time whether the treatment was carried on 4 or 5 days or 4 or 5 weeks. In the other two of these 12 patients the asthma was made worse. It is also useful in penicillin reactions, vasomotor rhinitis, hayfever, etc.

In *Disseminated Lupus Erythematosus*—ACTH was tried in two cases of acute lupus who were almost moribund, and within a very few hours both patients appeared absolutely normal. In other cases less acute the results were somewhat less remarkable. However, the lupus recurred rapidly after treatment was stopped. ACTH apparently alters the body response to any irritant.

Cirrhosis of the Liver and Virus Hepatitis—there was also an impression of some improvement though this was not definitely proven.

Poliomyelitis—No action observed.

Neurological States—in general were found to have little effect. Myasthenia gravis had an initial effect which was bad, and later improved. Alcoholism showed marked improvement of the various bad effects. There was shortening of D.T.'s, etc., though Korsakov sycosis was not altered.

Pulmonary Disease—Lobar pneumonia showed an almost miraculous result. He stated one case in which an alcoholic was brought into hospital with almost complete consolidation of one lobe. He was given ACTH and 18 hours later an X-ray showed

absolute clearing. It is noted that bacteraemia frequently results following the use of ACTH, but apparently does not bother the body. *Virus Pneumonia*—while on ACTH the patient felt well, and while taking it the symptoms were controlled completely, but did not show any change in the lung picture. When it was stopped there was a recurrence of the symptoms and one patient was given five remissions and exacerbations by giving and stopping the ACTH.

Tuberculosis—was used in two advanced cases. Within 36 hours there was marked improvement. They were kept on it for one month and gained 28 pounds. Temperature fell to normal, sed. rate fell to normal, and the Mantoux test became negative, though they were still having positive bacteria in sputum. The lesions in the lung diminished in density. However, when this was stopped in 24 hours the condition was worse than previously. Apparently there is a diminution in the growth of fibrous tissue which is the normal response to the body in attempting to heal T.B., and this allowed marked spread.

There is a psychological effect, and ACTH may cause euphoria which may go on to hypermania, and occasionally worse. One doctor stated that he thought that a certain amount of euphoria was to be expected if a patient who had previously been confined to bed for 12 years by rheumatoid arthritis were given some Cortisone or ACTH, were able to get up and go around to dances and so on. He thought the man would have some reason to feel good.

Dr. Browne then went on to some of his own speculations in this disease. He drew a diagram showing Addison's at one end, normal in the center, and Cushing's Syndrome at the other, and said that this was the idea of the adrenal secretions. Minimum giving Addison's, maximum giving Cushing's.

Cortisone apparently affects the internal transfers of protein and salt into and out of the cells. He gave the instance of a pregnant woman in which the foetus will invariably take what it needs from the mother's blood, and even if the mother is not getting sufficient to eat, her own tissues will be broken down so that the foetus can have all that is necessary. Cortisone causes a mobilization of protein, so affects protein metabolism and apparently also fat and carbohydrate metabolism. In continuing Cortisone or ACTH in large amounts to animals, there was a very marked depletion of proteins from all tissues of the body and the animals died more or less in starvation. It is known that in chronic illnesses there are tendencies for certain cells to store proteins. These, with some other added features tend to give abnormal tissues. Cortisone reduces protein and so this abnormal tissue. It acts then as a flux or a valve allowing a flow of protein from the cell back into the normal circulation. The changes which occur are often good but may be quite unfortunate. These things, he felt, show that disease is not a rigid thing, you cannot put it into a compartment and say "yes, this patient has this particular disease." It is all a stage and a question of degree. He drew a picture of an iceberg showing seven or eight peaks and put the name of one disease at each peak. Then he drew a water line, which, like an iceberg, covered seven-eighths of the particular one he had drawn. He said the one-eighth above was the individual characteristic of the body response to that particular organism, and the other seven-eighths was the body's general reaction. So that the general reaction is present in any case, and it is only this final one-eighth of a specific response through which we have finally labelled all the diseases. He stated that it was shown in many cases that marked psychological stimulation could cause intense rise in the glucocorticoids in the urine which are the end products of Cortisone and ACTH. This then he felt might possibly be the way in which miracle cures have from time to time occured when a patient with marked psychological stimulation would cause considerable secretion of ACTH and so formation of Cortisone, with an almost miraculous recovery. He felt that the rise of psychosomatic medicine was extremely important but that we were tending to fall on the two sides of the fence which was not there.

CRETINISM

DR. P. M. RANSFORD, M.B. B.S.

Cretinism is of 2 kinds, sporadic and endemic. The sporadic type can occur anywhere in the world and the endemic type is found in the mountainous areas of localities in which goitre is endemic, i.e. some parts of Switzerland, and Derbyshire and Gloucestershire in England. There is an equal sex incidence.

This evening we are considering the sporadic type of Cretinism. The onset of this disease may not be obvious until the child is 3 months of age, or perhaps even a little later if it has been breast fed.

The severity of the clinical picture varies with the extent of the deficiency of the thyroid gland, but the description which follows and the accompanying lantern slide will serve to describe an untreated cretin of 2 years of age. In build he is stumpy and thickset with limbs that are short in comparison with the trunk. The skin is dry, rough and may have a yellowish tint. There may possibly be some cyanosis of extremities. The hair is course, brittle and appears to be sparsely parted. The head is large with wideset eyes and a broad, flat nose, and the fontanel is late in closing. The teeth are late in arriving and tend to decay early. The tonsils are big and the tongue protrudes as if it were too big for the mouth. Expression is dull and there is a slow smile. There is a myxoedematous infiltration affecting the skin of the neck and limbs, and supraclavicular pads of fat are present. The umbilicus protrudes and there may in fact, be an umbilical hernia.

Progress is slow. The child falls more and more behind his fellows mentally and bodily. He walks late. His speech is limited to a few words, and it is difficult to stimulate him to any display of emotion. Sexual development will be absent. He sleeps much, is placid and his movement are slow and reptilian. It has been said that without thyroid the fires of metabolism burn low.

The diagnosis of the condition is made very largely on recognition of the clinical picture, but confirmation may be obtained by an estimate of the serum cholesterol. If the upper limit of normal is taken as 200 mgms.% it may well be found that in a cretin the figure may be 400, 500 or even 600 mgb.%. Confirmation may also be obtained by X-ray of the wrists, in which it will be seen that the bone age of the child is not as advanced as in a normal child of similar age. The accompanying lantern slide shows a case of right sided congenital dislocation of the hip which has occurred in a cretin. The second picture shows the same hip with the deformity now corrected after 20 months of treatment with thyroid extract. No other treatment was given. This picture is taken from Caffey's textbook of Paediatric X-ray Diagnosis.

A differential diagnosis lies mainly between Mongolism and achondroplasia, and the last lantern slide shows a typical achondroplasia, and the last lantern slide shows a typical achondroplasic. The differentiation between Mongolism and Cretinism is of very considerable importance in that no drug treatment is of any use for a Mongol, but a properly treated Cretin can be improved not only in appearance but also in mental development to the extent that a known Cretin has won a scholarship. Briefly to mention the appearance of a Mongol, the skin is smooth, there is no constipation, the child is of normal size, happy disposition, he may have a curved little finger, a small tongue, and be fond of music. Often there is an associated congenital heart lesion. These children, while being mentally defective, do not present the problem to their families that an untreated Cretin does.

Treatment: consists of the administration of thyroid extract daily for the rest of the patient's life. The dose should be started at grain ¼ daily. The effffect of the drug is cumulative—a fact which must be remembered when increasing the dose. At least one week must be allowed before making a further increase in the size of the dose. In the first instance, the dose can be governed by estimation of his serum cholesterol, but in the months and years that follow it is perfectly satisfactory to govern the size of the dose by the pulse rate of the patient and by the number of daily bowel movements. It must be remembered that the normal pulse rate of a young child is above that of an adult, i.e., in the neighborhood of 110-120 per minute at birth. Clearly, the possibility of overdosage of the drug and production of thyrotoxicosis must be born in mind.

NEWS AND NOTES

Dr. G. A. Greaves has retired from active practice in Vancouver.

Dr. G. W. J. Fiddes, formerly of Hazelton, has moved to Green River, Ontario.

Dr. V. St. John, of Alert Bay, has moved to Campbell River.

Dr. J. E. Hill, formerly at the Vancouver General Hospital, has been named Director of Laboratories at the Sacred Heart Hospital in Spokane.

Drs. L. A. Quirk and *Dr. R. D. Thompson* are now with the Department of National Health and Welfare in London, England.

Dr. G. O. Hallman, formerly of Cloverdale, is now in Suva, Fiji Islands.

Dr. J. T. Cruise, formerly of Kelowna, is now practising in Victoria.

Dr. F. N. Elliott has moved from Vancouver to Port Renfrew.

Dr. L. M. Greene has moved from Powell River, B. C., to Prince Rupert.

Dr. J. H. Blair is now practising in Calgary.

Dr. J. M. Murray, from Vanouver, is now in New York City Hospital, New York.

Dr. A. W. Knox, of Kelowna, is now at the Presbyterian Hospital in New York.

Dr. F. W. Arber is at Campbell River.

Dr. Leslie Saunders, of Vancouver, is now at the Queen's General Hospital in Kingston, Jamaica.

Sir Reginald Watson-Jones and *Professor F. H. Bentley* have been guest lecturers from England at the Vancouver General Hospital this month.

Dr. J. A. Venables has returned from England to his home in Victoria.

Dr. K. K. Pump has moved to Montreal from Vancouver.

Dr. H. P. Swan is now with the British Military Hospital in Hamburg.

Dr. James Nelson, formerly with the Red Cross Transfusion Service in Vancouver, is with the Tuberculosis Unit in Victoria.

Dr. G. H. Burgess, formerly in the Queen Charlottes, is now at Prince Rupert.

Dr. D. G. Ulrich has moved from Zeballos to Vancouver.

Dr. G. A. Fraser has gone to the Hospital for Sick Children in Toronto from Vaancouver.

Dr. A. A. O'Neil, of Vancouver, has moved to Calgary.

Dr. S. W. Baker, from Ladysmith, is now in Vancouver.

Dr. J. S. Spooner is studying Urology at Queen's University.

Dr. C. H. Vrooman is at present in Sidney, Australia, where a conference is being held on Pneumonoconiosis. Eleven countries will be represented at this conference, and he is one of three Canadian representatives who will take part in the discussions.

Dr. Digby Leigh has been an Honorary F.R.C.S. in London, England.

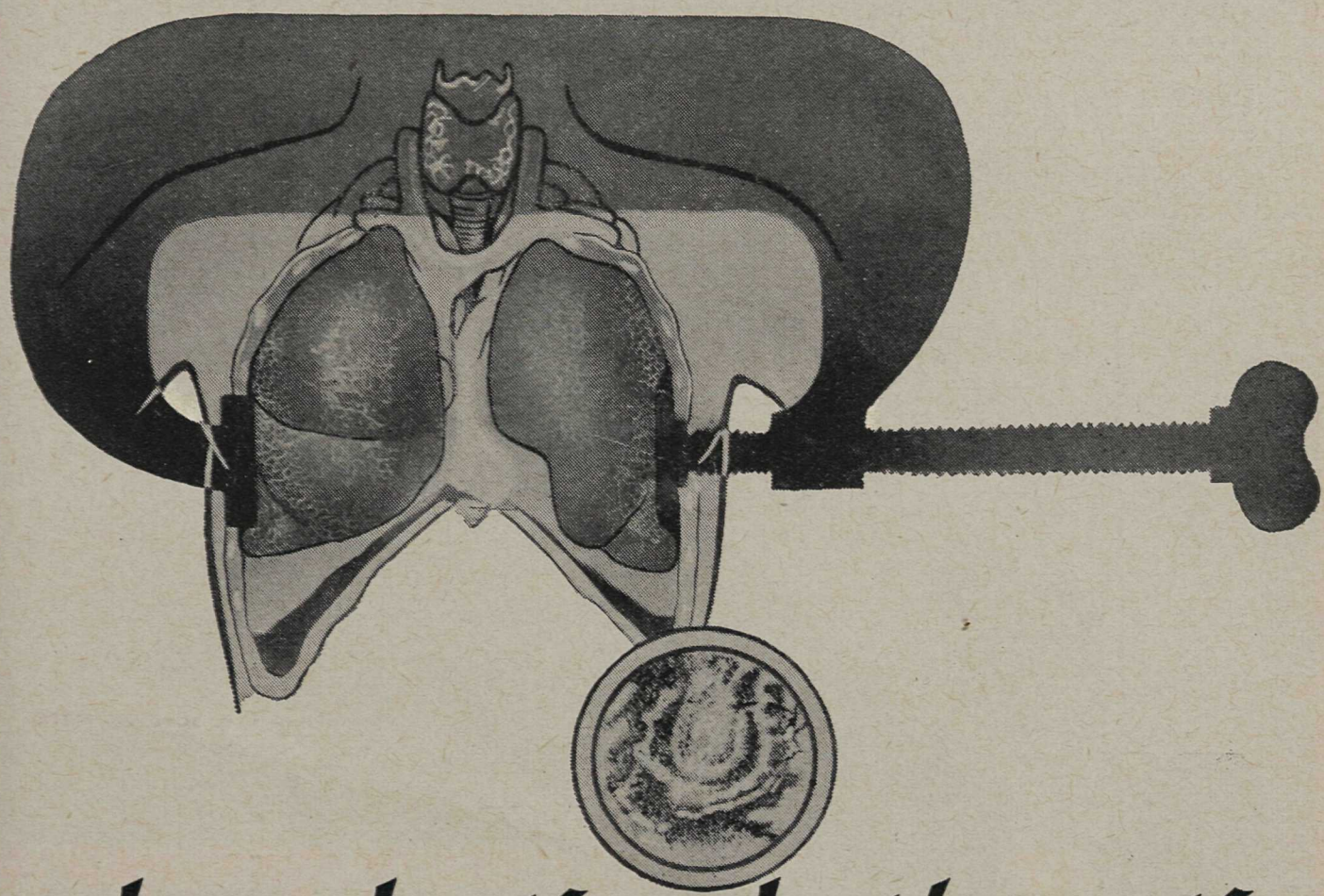
Dr. W. J. Thompson has been named Director of the Western Center for Physical Rehabilitation in Warm Springs, Florida.

Dr. D. A. Steele has been named B. C. Director of the Canadian Foundation for Poliomyelitis and has been in Toronto preparing for this Kinsman Club project.

Dr. Albert Menzies has left the Vancouver General to continue studies at the Sunnybrook Veterans' Hospital in Toronto.

New fathers include *Drs. A. L. Pedlow, G. W. Barnes,* and *R. Farrish.*

Dr. W. Sherman, formerly at the Vancouver General Hospital, has gone to Hawaii to continue his pediatrics course.



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(*Hansel, Ann. Allergy, 6: 155 — 161, 1949*).

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(*Ryan, Postgrad. Med., 5: 330, 1949*).

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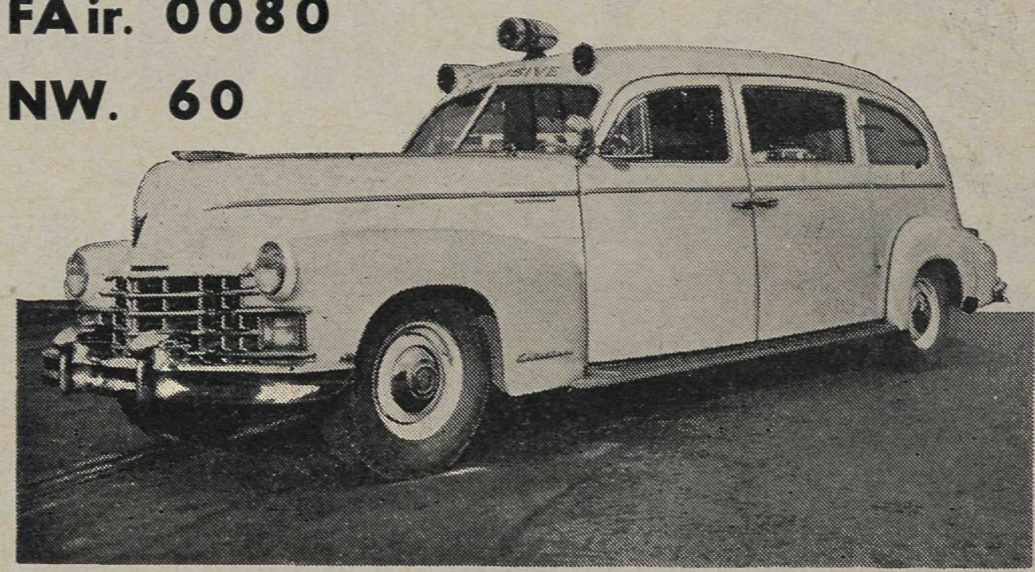

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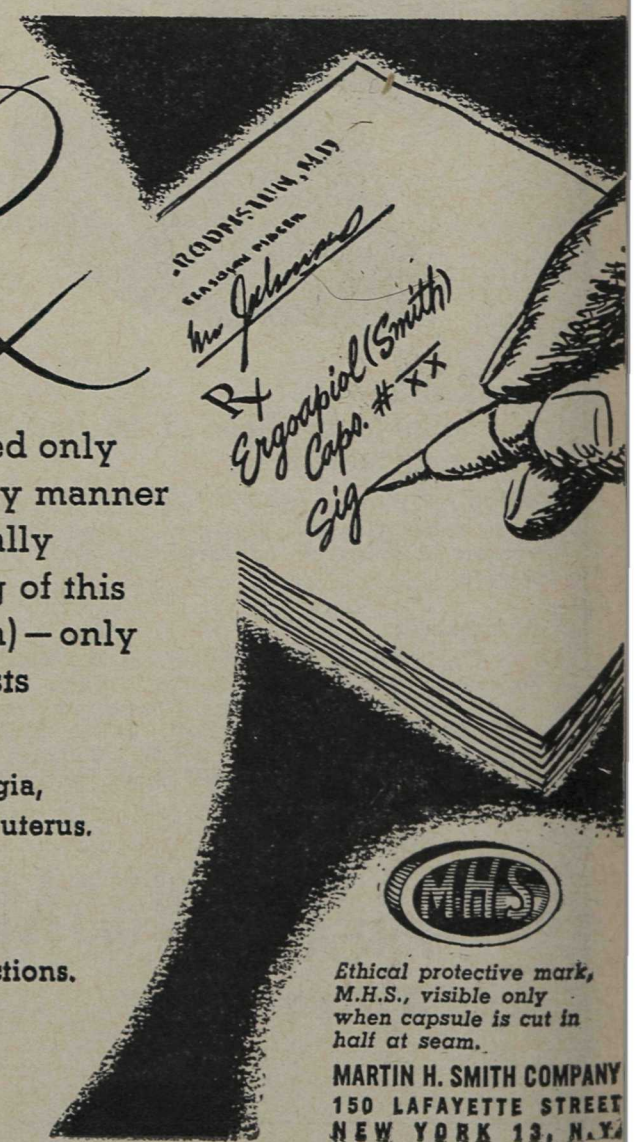

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