The BULLETIN

of the

VANCOUVER MEDICAL ASSOCIATION

Vol. XVII JANUARY, 1941 No. 4

With Which Is Incorporated
Transactions of the

Victoria Medical Society

the

Vancouver General Hospital

and

St. Paul's Hospital

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THE VANCOUVER MEDICAL ASSOCIATION

BULLETIN

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

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VOL. XVII. JANUARY, 1941 No. 4

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VANCOUVER HEALTH DEPARTMENT

STATISTICS—NOVEMBER, 1940

Total population—estimated	269,454
Japanese population—estimated	9,094
Chinese population—estimated	8,467
Hindu population—estimated	339

	Number	Rate per 1,000 Population
Total deaths	275	12.5
Japanese deaths	7	9.4
Chinese deaths	7	10.1
Deaths—Residents only	241	10.9
BIRTH REGISTRATIONS:		
Male, 190; Female, 185	375	17.0

INFANTILE MORTALITY:	Nov., 1940	Nov., 1939
Deaths under one year of age	14	12
Death rate—per 1,000 births	37.3	29.4
Stillbirths (not included in above)	5	17

CASES OF COMMUNICABLE DISEASES REPORTED IN THE CITY

	October, 1940		November, 1940		Dec. 1-15, 1940	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Scarlet Fever	15	0	26	0	16	0
Diphtheria	0	0	0	0	0	0
Chicken Pox	46	0	52	0	55	0
Measles	73	0	201	0	239	0
Rubella	8	0	13	0	10	0
Mumps	9	0	12	0	3	0
Whooping Cough	9	0	3	0	1	0
Typhoid Fever	0	0	0	0	0	0
Undulant Fever	0	0	5	0	0	0
Poliomyelitis	0	0	0	0	0	0
Tuberculosis	29	0	21	16	23	–
Erysipelas	2	0	2	0	1	0
Meningococcus Meningitis	1	0	1	0	3	0
Paratyphoid Fever	2	0	0	0	0	0

V. D. CASES REPORTED TO PROVINCIAL BOARD OF HEALTH, DIVISION OF VENEREAL DISEASE CONTROL

	Burnaby	West Vancr.	Richmond	North Vancr.	Vanc. Clinic	Hospitals & Private Drs.	Totals
Syphilis	0	0	0	0	17	20	37
Gonorrhœa	0	0	3	0	52	21	76

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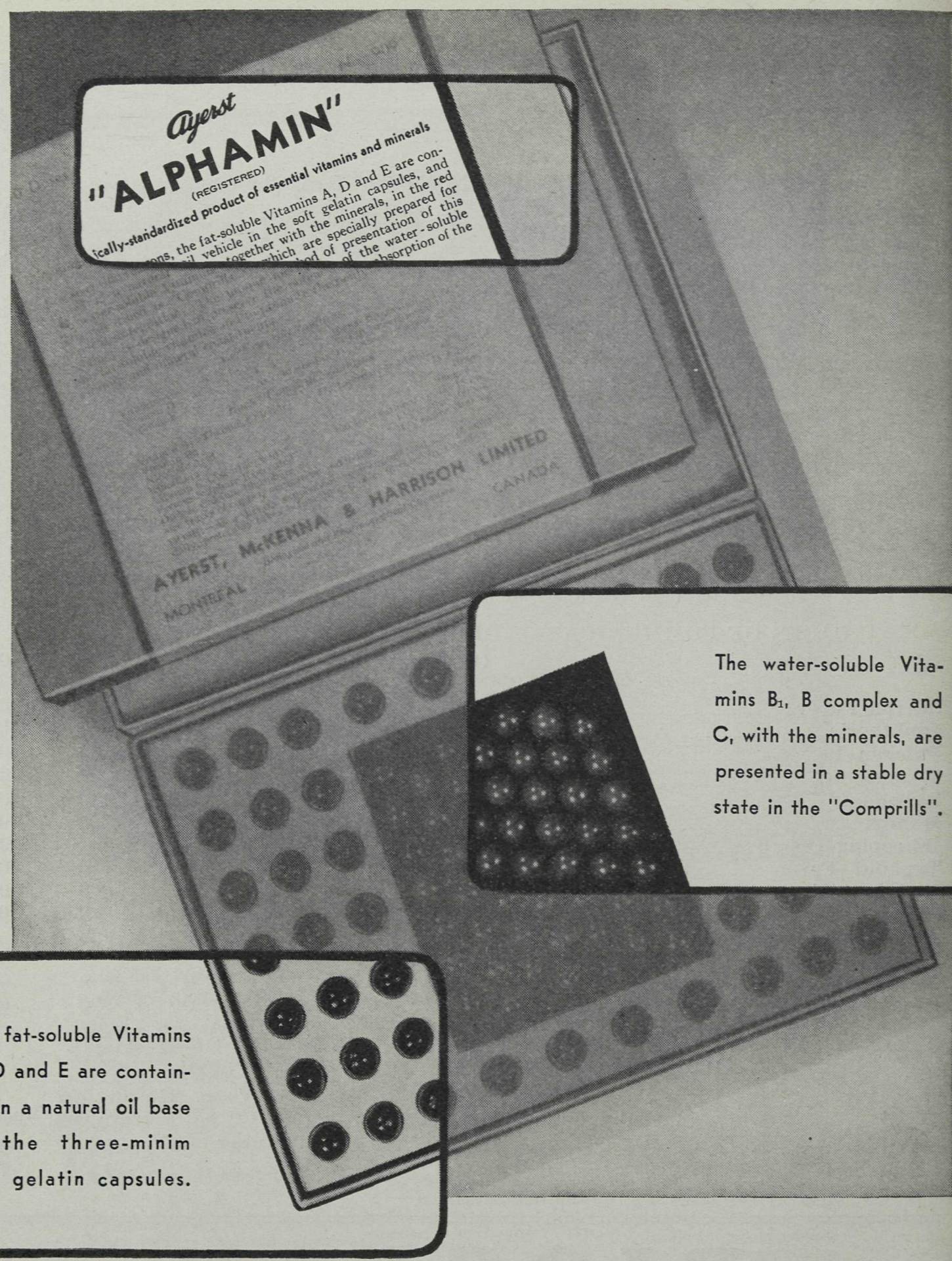

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GENERAL MEETINGS will be held on the first Tuesday of the month at 8 p.m.

CLINICAL MEETINGS will be held on the third Tuesday of the month at 8:00 p.m. Place of meeting will appear on the Agenda.

General meetings will conform to the following order:

8:00 p.m.—Business as per Agenda.
9:00 p.m.—Paper of the evening.

Programme of the 43rd Annual Session

1941.

January 7—GENERAL MEETING.
Dr. G. F. Amyot: "Public Health and the Practice of Medicine."

January 21—CLINICAL MEETING

February 4—GENERAL MEETING.
Dr. D. H. Williams: "Buccal Manifestations of Cutaneous Disorders." (Illustrated by slides.)

February 18—CLINICAL MEETING.

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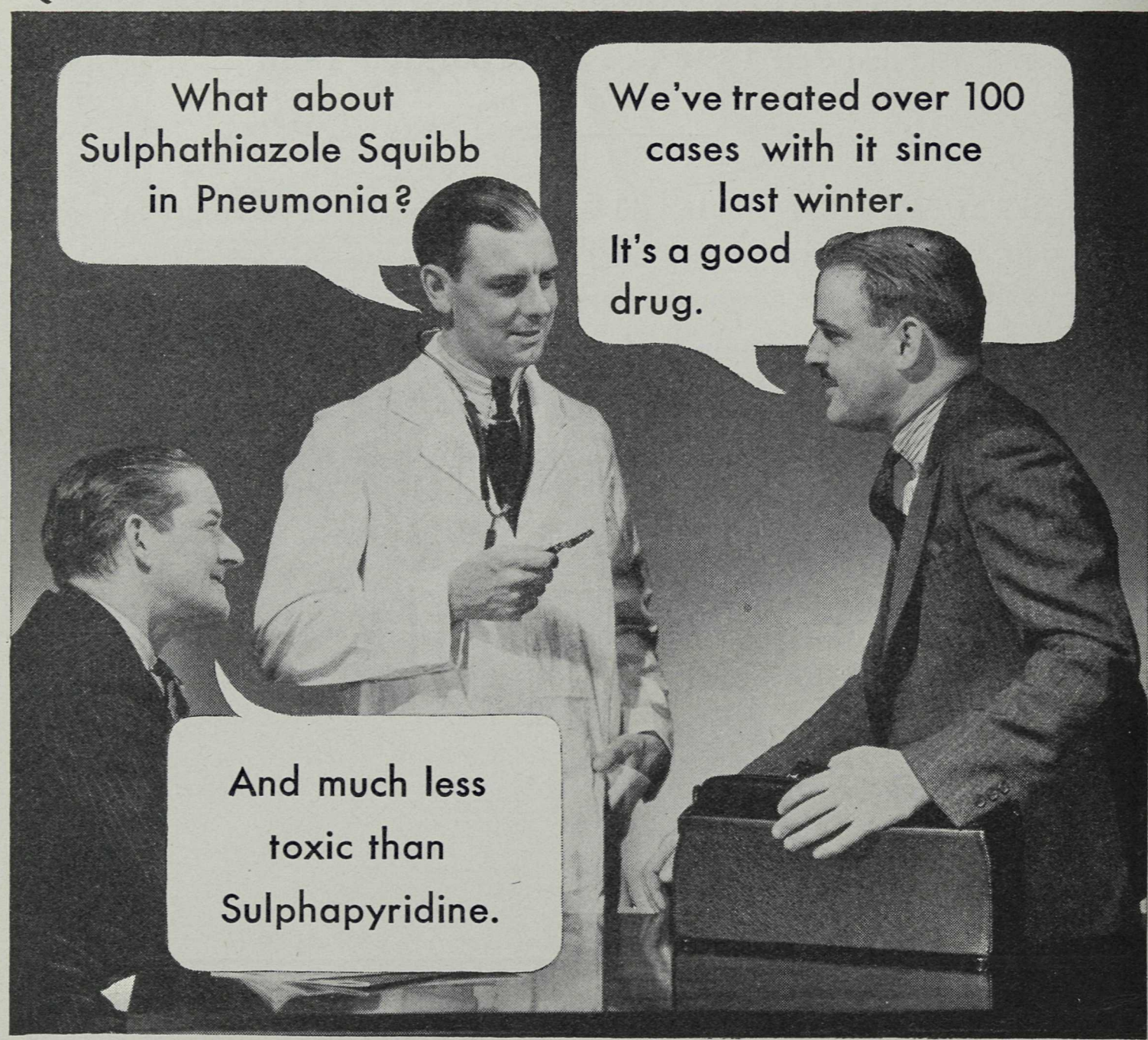

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"And if you fail to see definite response in 72 hours?"

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THE EDITOR'S PAGE

To all our readers we should like to express our sincere good wishes for all good and happiness in this New Year of 1941, just now embarking on the sea of time. It is a fateful year, a year of destiny, and one would like to be able to gaze into a crystal ball, and see unrolled before one's eyes the panorama of future events—or would one? Could any foulest fiend think of a greater cruelty to inflict on humanity, than would be the gift of knowledge of the future, even one day ahead? This is emphatically a case where ignorance is bliss. It is enough to know that we have so far weathered a storm, surely as severe, as overwhelming, as terrible, as any that has ever imperilled the frail bark in which rides the human race. That we have done so is the greatest memorial to human valour, human self-sacrifice, human devotion that could be had.

Since we cannot look forward, except in faith, and with a new hope, we might perhaps look back over the past year, and see what its grim history has to give to us, of home and encouragement for the year to come. We, in this sheltered spot, so far removed from the actual theatre of war, can only vaguely imagine what the real thing must be like: but our interest is as real and keen, our future as deeply involved, as is the case with all the rest of the British Commonwealth of Nations. Our peace is only a negative one—our security entirely a borrowed security. In common with all who feel that the democratic way of life is the only way worth having, we are committed, to the utmost of all that we have and are, to a total war against oppression, and domination by those who, if they win, will as surely enslave us, as they have so far enslaved all who have come under their power. We have no illusions any longer on that point.

Yet there is much to encourage us, much on the credit side of the ledger. The incredible, almost superhuman, gallantry of the British nation, now fighting as one man for all that makes life worth living, for all the moral as well as material values of life, has brought about miracles: has time and again snatched a glorious victory from seemingly inevitable disaster: and generations to come will thrill, as we do, at the tales of Dunquerque, and the Battle of Britain: the Homeric exploits of the Greeks: the Australian victory at Bardia: while from an awakened Western Hemisphere comes a thundering defiance, hurled in the teeth of the monster who threatens and does all in his power to destroy human liberty and human happiness.

Certainly all is not dark. Great men have risen to meet the occasion—but the greatest of all is the "common" man and the "common" woman. Even the children have shewn a courage and a determination which augur well for the men and women they are to be.

So we may look forward to 1941 with a new courage, a new hope, a new faith in God—in ourselves and our leaders. We know we have chosen the right, and we know the right must conquer.

* * * *

It is, we think, a matter for congratulation and satisfaction to be able to record a steady, even a notable, increase in the membership in the Canadian Medical Association, of medical men in British Columbia. Dr. M. W. Thomas, Executive Secretary, informs us that the membership for the B. C. Division has now reached the figure of 473, over 50% more than the largest number ever recorded so far. This is a fine record, and for it we have to thank those who have worked on the Committee appointed by the B. C. Medical Association to conduct a drive in this direction. Dr. W. E. Ainley was the first chairman of this Committee, and his excellent work has been carried on by Dr. H. H. Milburn, the present chairman, who has been able to present this last report. We congratulate these men on a good job well done—and urge all members of the B. C. Medical Association to join at once, and obtain the undoubted benefits of membership in the Dominion organization.

NEWS AND NOTES

Colonel Lavell H. Leeson, A.D.M.S. of the 3rd Canadian Division, arrived by plane to spend Christmas in Vancouver with his family.

* * * *

Colonel Leeson has his headquarters in Nova Scotia and reports that Capt. Gordon Large and Capt. J. A. Wright, who are also in that area, as well and doing good work.

* * * *

Congratulations to Dr. and Mrs. Hubert Dumont on the birth of a son on December 6th.

* * * *

We are glad to hear that Fred Dyer, son of Dr. H. Dyer of North Vancouver, who was recently reported seriously ill with the R.A.F. in England, is now improved.

* * * *

Dr. W. T. Kergin, now residing in Vancouver, spent the Christmas vacation among his old friends in Prince Rupert, where he practised for many years.

* * * *

Major W. S. Baird, who is associated with the office of the D.M.O. in Victoria, spent Christmas in Vancouver.

* * * *

Major Roy Huggard, Officer in charge of Surgery at the Station Hospital, Work Point Barracks, Victoria, spent Christmas in Vancouver with his family.

* * * *

Lieut.-Col. A. L. Jones is now located at St. John, N.B.

* * * *

Latest reports found Capt. H. Beecher Galbraith in Montreal.

* * * *

Capt. Gordon C. Large is located at Truro, Nova Scotia.

* * * *

Doctors F. H. Bonnel, W. L. Boulter, W. M. Carr of Victoria, J. U. Coleman of Duncan, B. H. Cragg of New Westminster, H. R. L. Davis, H. A. DesBrisay, J. A. F. Elliot, A. C. Gardner Grost, J. F. Haszard of Kimberley, J. A. Ireland of Kamloops, J. A. MacMillan, W. E. M. Mitchell and R. J. Nodwell of Victoria, H. A. Robertson, P. S. Tennant of Kamloops, Andrew Turnbull of Victoria, all are somewhere in Great Britain on Military Service.

* * * *

Other members of the College of Physicians and Surgeons of British Columbia, who are engaged in Medical Services, include: Lt.-Col. W. H. K. Anderson of Victoria, W. S. Baird, Major S. G. Baldwin, Lt.-Col. W. Bapty of Victoria, W. Bramley-Moore, R. E. Burns, M. R. Caverhill of Victoria, R. D. Coddington of Ocean Falls, D. B. Collison, C. C. Covernton, A. L. Cornish of Courtenay, Lt.-Col. E. E. Day, L. G. C. d'Easum, A. Maxwell Evans, Major W. Allan Fraser, H. B. Galbraith, J. A. Ganshorn, Major Roy Huggard, A. N. Johanson, F. B. Jordan, Lt.-Col. A. L. Jones, J. K. Kelly, W. N. Kemp, Lt.-Col. G. C. Kenning, G. M. Kirkpatrick of Essondale, R. R. Laird, G. C. Large, G. A. Lawson of Port Alice, D. R. Learoyd, Major F. W. Lees, Col. L. H. Leeson, R. P. McCaffrey, J. S. McCannell of Victoria, Murdo McRitchie of Fernie, Major T. Miller, Major R. L. Miller, both of Victoria, Dr. R. S. Milne, Lt.-Col. Roy Mustard, E. T. W. Nash, C. H. Ployart of Lillooet, C. A. Ryan, T. F. Saunders, Henry Scott, R. Scott-Moncrieff of Victoria, A. J. Stewart, G. L. Stoker, F. H. Stringer, J. H. Sturdy, T. W. Sutherland of Revelstoke, J. W. Vosburgh of Essondale, Stewart A. Wallace of Kamloops, C. A. Watson of Victoria, W. M. G. Wilson of Kamloops, G. H. Worsley, R. J. Wride of Princeton, J. A. Wright, and W. R. Brewster.

The following, who are not registered in British Columbia, who joined the Services in this area, include the names of G. A. Badger, L. W. B. Card, J. F. Cork, Wm. Finlayson, S. McClatchie, D. A. Perley.

* * * *

Doctors W. J. Elliot, W. A. Morton, H. P. Swan, A. N. Reid, H. Mallek, O. E. Kritzwiser, are all doing war service in Great Britain.

* * * *

Recent entrants for Medical Services in Military District No. 11 include Doctors C. C. Covernton, F. B. Jordan, R. P. McCaffrey and D. R. S. Milne.

* * * *

Dr. M. J. Swartz of Cranbrook is entering the Medical Services.

* * * *

Dr. Gordon A. Lawson of Port Alice is entering the service of the R.C.A.F.

* * * *

We are glad to report that Capt. H. R. L. Davis has recovered following his serious illness with pneumonia. He is serving as Medical Officer to a Machine Gun Battalion.

* * * *

Lt.-Col. Gordon C. Kenning, D.M.O. of the Military District with headquarters in Regina, spent Christmas with his family in Victoria.

* * * *

Dr. and Mrs. Norbert J. Ball of Oliver are to be congratulated on the birth of a son on December 18th.

* * * *

Dr. A. A. Sutherland of Blubber Bay was in town for Christmas. During his absence, Dr. T. H. Lougheed is carrying on the practice and renewing acquaintances in his former stamping ground.

* * * *

Dr. P. L. Straith of Courtenay is recovering from his recent illness; in fact. he surprised us by a Christmas visit to the College office.

* * * *

Dr. and Mrs. Robert McKenzie of Grantham's Landing are guests in Vancouver with their daughter, Mrs. Kenneth Bagshaw.

DR. R. W. GARNER

Obiit Jan. 1940

Dr. Garner's recent very sudden death marks the passing of a man who had had a long and varied medical career in British Columbia. His practice in Vancouver extended back somewhat less than ten years, and prior to this he had practised in industrial areas, mining and logging camps and towns. His knowledge of industrial medicine and surgery was very extensive, and he was an ingenious and skilful industrial surgeon. He was engaged in contract practice for many years at Fernie, and later at Duncan, V.I.

Dr. Garner had many interests outside his practice—politics being one of them, and social economics another. His practice, however, which was a very busy one, left him little time for these activities: but he did his best to keep up with current affairs, and to take his part in them.

To his widow and family we extend our sympathy and condolences in their bereavement.

Dr. Sidney E. Evans has taken over the practice at Tofino, formerly carried on by Dr. J. G. Robertson, who is now doing Eye, Ear, Nose and Throat work in New Westminster. Dr. Ella Cristall (wife of Dr. Evans) will be associated with Dr. Evans in the practice at Tofino.

* * * *

Dr. G. E. Darby of Bella Bella is spending Christmas with his family, who reside in Vancouver. Dr. G. E. Bayfield of West Vancouver is carrying on in the absence of Dr. Darby.

* * * *

Dr. G. G. Ferguson, formerly of McBride and Smithers, and more recently associated with a group in Moose Jaw, passed through Vancouver en coute to Victoria, where he is now with the Medical Services.

* * * *

Dr. Irene M. Clearihue, wife of J. B. Clearihue, K.C., of Victoria, left shortly after the War commenced to do post-graduate work. She is now on the staff of the Montreal General Hospital and largely engaged as an Anæsthetist. Dr. Clearihue has never practised in British Columbia, but is a graduate of London Hospital.

* * * *

Dr. W. A. McTavish is now associated with the Columbia Coast Mission with headquarters at Rock Bay.

* * * *

Dr. F. W. Green of Cranbrook called at the College office en route to Victoria for Christmas.

* * * *

Dr. L. M. Greene of Smithers came down to take Mrs. Greene home. Mrs. Greene has recovered from a recent operation.

* * * *

Dr. Paul Phillips of Princeton had a short vacation in Vancouver in December.

* * * *

Dr. W. D. Sharpe has left for Zeballos to take on the practice of Dr. John King Kelly, who is now serving with the C.A.S.F.

* * * *

Dr. R. B. White of Penticton was a recent visitor to Vancouver.

* * * *

Capt. W. M. G. Wilson, who was associated with the Doctors Burris and Archibald group in Kamloops, is now in service with the R.C.A.M.C.

* * * *

Dr. R. W. Irving, accompanied by his daughter, Miss Evelyn Irving, left for Toronto and Montreal for the Christmas holidays and will be away a couple of weeks.

CANADIAN MEDICAL ASSOCIATION
1941 MEMBERSHIP 1941

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New Members are reminded that prompt response will assure receipt of the January number of the Journal.

THE JOURNAL SPEAKS FOR CANADIAN MEDICINE
THE C.M.A. MEMBERSHIP FEE INCLUDES THE JOURNAL.

LIBRARY NOTES

NEW BOOKS RECEIVED IN LIBRARY

Medical Clinics of North America, November, 1940—Symposium on Arthritis.

Organization, Strategy and Tactics of the Army Medical Services in War, 2nd ed., by Colonel T. B. Nicholls.

Medical Diseases of the War, by Sir Arthur Hurst.

Special Library Methods, by John L. Thornton.

Legal Medicine and Toxicology, by Thomas A. Gonzales.

Biochemistry of Disease, by Meyer and Oscar Bodansky.

Medicolegal Ophthalmology, by Albert C. Snell.

Standard Classified Nomenclature of Disease (American Medical Association).

BOOK REVIEW

As I Remember Him—*The Biography of R. S.*
Hans Zinsser. Boston: Little, Brown and Company. 1940.

Dr. Zinsser, whose *Rats, Mice and History* gained such wide popularity a few years ago, attempts to write an autobiography from the objective viewpoint by creating a mythical "R. S."* of whom he speaks in the vein of an elder and humorously-tolerant friend. We are reminded of "The Education of Henry Adams," which appeared over a score of years ago, confessedly an autobiography, but in which also the author contemplated his own life-history objectively. One soon learns that Zinsser had this book in mind, and refers to it on several occasions, but if he was less successful in detaching himself from his subject than was Henry Adams, his book loses nothing by it.

Every man is a hero to his autobiographer, a conclusion which in inescapable after reading nearly every work of this character. In Zinsser's life of himself, however, while there is no self-depreciation, neither is there high-lighting of dramatic values. The author finds a tendency to discursiveness, to introduce irrelevant detail, to plunge into controversial matters, on the part of his subject, which he curbs with difficulty and but partial success. He finally gives him his retained expression of approval. When he writes in the closing paragraph of the book "R. S. was really a quite ordinary person about whom it was hardly worth while to write a book," we know he says less than he believes, and Zinsser at least found R. S. to be a very interesting person to whom he had really become quite attached.

The final chapter, in which he tells how R. S. viewed his closely approaching death with intensified perceptions and enjoyment of the beauties of the world he was leaving without regrets, is one to be remembered. Hans Zinsser died of lymphatic leukæmia before the book was published, and one suspects that it was not commenced until after the diagnosis had been made.

This is not merely another "doctor book." The author had a dread lest it might be regarded as such. It is a record of a man's thoughts, and something of his actions: his thoughts about many things, science, philosophy, the arts, in all of which his interect was active. The literary style is relieved of any heaviness by a light, whimsical, even gay touch. One feels when reading it that his horizons are receding in many directions.

—D. E. H. C.

---

* At the time of the author's death it was disclosed that the initials "R. S." signified *Romantic Self.*

A REVIEW OF PUBLIC HEALTH ACTIVITIES AFTER FOUR YEARS UNDER A METROPOLITAN PLAN

Prior to November 1st, 1936, each municipality in the Greater Vancouver area, and even local boards within the municipalities, functioned as complete public health entities. This type of program resulted in overlapping, duplication and much waste effort without achieving the results commensurate with the expenditures. Problems in public health were more difficult of solution, as was evidenced during the smallpox epidemics of 1924 and even 1931. Realizing these difficulties and visualizing a workable solution, the late Drs. J. W. McIntosh and H. E. Young set out to establish a co-ordinated public health service, which resulted in the present Metropolitan plan.

The area today includes the municipalities of North Vancouver City and District and the Health Services of the West Vancouver Schools, on the North Shore; the Health Services of the University of British Columbia and the Public Health Services of the University Area; the complete public health services of Vancouver, Burnaby, Richmond and D.L. 172. At once you realize that in the Greater Vancouver area we have a natural geographical unit, but the Metropolitan plan is incomplete in that West Vancouver, New Westminster, Coquitlam and Port Moody are not as yet included.

Why is a Metropolitan Public Health Plan logical? The spread of communicable disease is not limited by municipal boundaries but by natural ones. The municipalities in a given area have problems in common—water supply, milk supply, sewage disposal, food supply. The same inspection services must be carried on by each municipality, either singly or, in the case of the Metropolitan plan, by co-ordination. And finally, using Rosenau's definition for public health: You will realize that sound organization in a natural workable area is the only logical means of approach.

A few facts regarding the area under the Metropolitan Committee.—It covers 210.47 square miles. The total population is estimated at 321,917, of which approximately 9,000 are Japanese, 8,000 are Chinese and 400 are Hindus. It is important to know the main racial groups, as, for example, touberculosis shows a higher morbidity and mortality rate in Chinese than in Whites, etc.

What is the organization? The Metropolitan Health Committee is composed of representatives from the various Councils, School Boards and bodies participating in the plan. This Committee outlines policies which must be confirmed by the various units having representation on the Committee. The Committee has no powers financially or otherwise, but can make recommendations only. It is of importance to realize this, as any of the local bodies may not see their way clear to follow out the recommendation passed by the main committee. There are many administrative difficulties with a set-up of this type, but for the present time and until local bodies will relinquish their authority we must carry on as outlined.

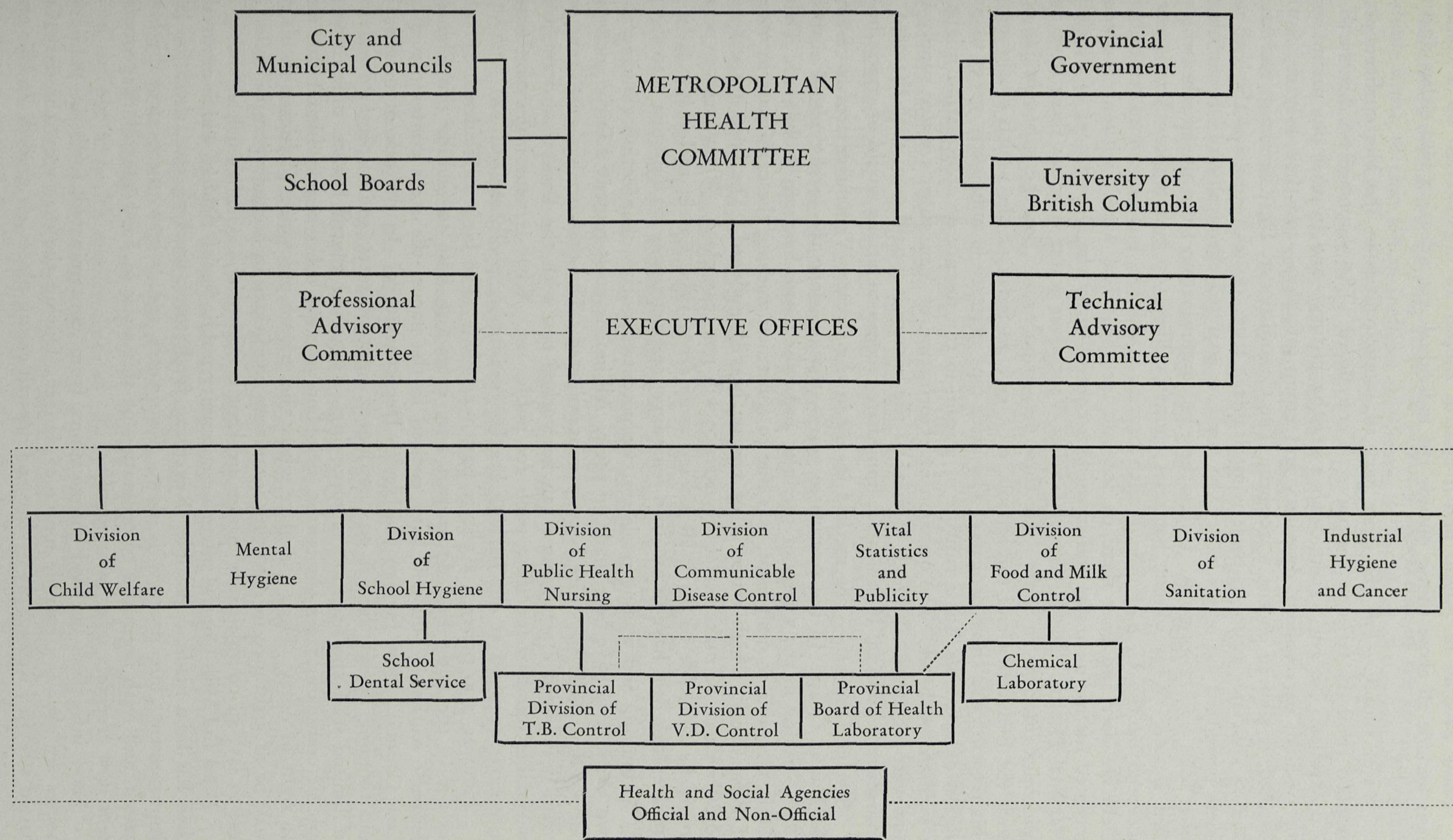
The services carried on are shown on the accompanying chart. You will note that the authority comes from the various governing bodies, who obtain theirs from the various Federal and Provincial Acts and Regulations and the local By-laws—via the Metropolitan Health Committee, to the Senior Medical Health Officer and thus to the staff.

For purposes of discussion, the promotion and maintenance of the public health is carrie dout by two main means of approach:

(a) Through organized community effort;

(b) Through organized effort toward improving the health of each individual citizen.

ORGANIZATION OF METROPOLITAN HEALTH SERVICES



Those avenues of public health control subject to organization on a community basis include all those things outside the individual, yet affecting him either directly or indirectly.

Water supply.—For the most part all municipalities in the Metropolitan plan are supplied from the Greater Vancouver Water Board. The watershed on the North Shore is controlled. No one, except with a healthy history—and by that one means negative for typhoid, paratyphoid, dysentery and group infection—and then only if the trip be justified, is allowed on the watershed. The Commissioner, Dr. Cleveland, and his engineering associates assure us there is no drainage from any ski camps on the shed nor are skiers permitted use of its hills. The water is analysed chemically and bacteriologically on at least weekly intervals. Unless there be contamination from the air, then the watershed is safe. What of our bacterial counts? These do run higher than is normally accepted by the U. S. Public Health Service standards, but one must remember that there are deer and bear there to account for this. The water, without treatment, is accepted for use on trains and steamships controlled by the Department of Pensions and National Health. The history of Greater Vancouver water is good; there have been no epidemics traceable to water. Are these measuring rods? Yes, the public health contact with the University and the schools, etc., give an index of the health of the people in this regard. Are there dangers? The intra-pipe pressure is sufficiently great to prevent ingress of materials, but a rupture of a main in the absence of chlorination might cause a localized outbreak. The question of chlorination of Vancouver's water supply is not, however, forgotten, although in view of the history it would seem that the need is not immediately pressing. If indicated, immediate recommendations would of course be made.

Sewage Disposal.—The method in use in the Greater Vancouver area is common to the Pacific Coast. In the past three years—that is, since the local typhoid outbreak in 1937—fishing in the waters of the inlet and False Creek has been prohibited. That outbreak, traceable to crab meat, was due to fishermen washing the crab meat in water out of False Creek, which water is, of course, heavily polluted. The Food Inspectors periodically check to make certain recurrence will not take place. When finances permit, it would be advisable to carry all sewage away from False Creek, and as the City grows consideration will have to be given regarding treatment prior to dumping into the water.

Swimming and wading pools are two potential sources of infection. During the past two years, tests have been made on these. All indoor pools present a fairly good picture, but wading pools are quite heavily contaminated. The position has now been reached when it is hoped a programme can be worked out with the Parks Board to insure an acceptable standard for these pools for public use. What is your impression regarding infections acquired at our bathing beaches, swimming pools, etc.?

Housing also presents a public health problem. The highest incidence of tuberculosis is in the West End downtown area, extending East to include the Chinese and Japanese sections. You will have noticed in the papers the steps contemplated by the City Council. How far can the Health Department go? In the case of lodging houses and rooming houses there is no question of right of entry and inspection, and in spite of limited staff the situation is improving. Regarding rented houses, unless there be a specific complaint from the tenant, neighbors or some other responsible official, we have no right of entry. Here is a place where the private practicing physician in his rounds may be of assistance in reporting insanitary conditions in homes where he calls. Needless to say, all complainants' names are kept confidential.

Food and Milk Control offers a community public health field in which more advance than has been made, is possible. Regarding food stores, markets, etc., there has been an improvement, but progress is slow. Two years ago, a new meat store by-law was passed, and with improved co-ordination of this phase of food control, Vancouver citizens now receive a safer meat supply.

Food infections or food intoxications from contaminated foods in public eating houses are always a possible source of danger. During the past year, the City Council passed a revised Restaurant By-law and now all eating places are graded. In this grading,

many factors are considered, ranging from the physical appearance of the rooms through the various items, to that which includes certificates of health of the employees. Many doctors in private practice will have restaurant workers come to them for this examination. It is realized that a certificate is good only for the day on which it is issued, but if the examiner will make certain that the medical history is free of the intestinal infections and tuberculosis, some progress will be achieved. The biggest advantage of the health certificate comes from the consultation with the doctor, who is in a position to advance health knowledge, particularly urging care in cleanliness after having been to the toilet and to take especial care when suffering from a respiratory infection. In addition, we are planning a series of lectures and exhibits for food handlers, giving, when the course is completed, a certificate in food handling. This latter type of programme offers the best opportunity of preventive medicine insofar as food handling is concerned.

Milk, as a food, is in a special category. It is the only common animal food used by man without previous cooking. At present, approximately 83% of the milk used is pasteurized; why not the other 17% At present, Vancouver or any other municipality cannot legally enforce pasteurization. A change in the Milk Act is necessary, and of course this can be done only by the Provincial Government. The present City Council is opposed to compulsory pasteurization. Is there any way of bringing in practically 100% pasteurization? The present Council recently passed a resolution asking the Provincial Minister of Agriculture to take necessary steps to reduce the danger of brucella abortus infection from raw milk. This offers the one channel, aside from prolonged educational work, which will result in practically 100% pasteurization. Why? Because at present, without governmental aid, it would be too costly for the dairy farmers to clean their herds of all Bang's reactors. This is the avenue of approach on which we are at present working.

Enough of pasteurization. What of the present status of raw or pasteurized milk or both? On the whole, the standard of milk, from dairy farm to private home in Vancouver, is considered high. Men of the U. S. Public Health Service, at a meeting in Seattle this year, pointed out the high degree of efficiency achieved here. However, one cannot accept anything below clean milk, properly handled and properly pasteurized.

Regarding General Sanitation—rat control, care of garbage, refuse disposal—progress has been achieved. When an inspector sees a vacant lot or an untidy lane, all householders in the neighbourhood now receive a call from him and a letter is left asking the co-operation of the tenants to take care.

At present, the Metropolitan Health Committee is working on a project of reducing litter in the street. They have obtained the co-operation of many organizations, and after the new year will start a co-ordinated plan to make Vancouver more beautiful and less untidy.

Regardless of how great the successes may be through organized community effort, the public health will not attain the best possible state unless each and every citizen is brought into play. After all, the public health of a community is determined by the sum total of the state of health of each individual citizen. The history of public health indicates that progress has been more rapid when effort was directed toward individuals as such in addition to those activities supervised on a community basis. It is in this phase of public health endeavour that the present Metropolitan plan has made considerable progress, and, to use the remarks of Dr. McIntosh of the Rockefeller Foundation, "has fully justified the grants made by the Foundation."

The area is divided into Health Units, each of which has a doctor in charge. He is assisted by a clerical assistant and a staff of nurses. The size of the staff, of course, depends on the public health requirements of the local area. The Unit Area is further subdivided into public health nursing districts which correspond to the school areas. In this manner, each public health nurse carries on a generalized programme, dealing with all phases of health education from pre-natal to senility, including, of course, communicable disease control, both acute and the special fields Tuberculosis and Venereal

Disease. The Unit Doctor directs the unit programme, which is fundamentally the same in ll areas; thus he directs the Well Baby and Pre-School Clinics, the Immunization Clinic and the School Health Programme, in addition to supervising public health nursing activities regarding Tuberculosis or other diseases. The fields of school health, mental hygiene and dental services have special directors and Dr. Kitching is epidemiologist.

The services are based on educating the individual or the parents, or prospective parents, in healthful ways of living, urging always the continued periodic visit to the family physician.

Our pre-natal work is very limited—in fact, too limited for a real programme. When a public health nurse meets an expectant mother, she urges an early visit to her doctor or the Clinic, and if wished, advises the Victorian Order of Nurses. We suggest that the expectant mother avail herself of the special letters at present distributed by the Provincial Board of Health.

The infant and pre-school programme is carried on mainly by clinics placed over the whole area. With the letters now sent out to the family physician, the following results have been obtained: Letters sent, 923; Replies received, etc., 213 (of which 95% wished clinic supervision and 5% no supervision). All clinics have posters urging consultation with the family physician, and approximately 20% of all babies seen are referred directly to the family doctor. No treatment is carried on in case of illnesses actual or suspected. No public health doctor sees a baby if requested not to by the family physician. All the work is educational, exclusive of immunization.

The school programme is one of the most complete in Canada, and because of the Metropolitan set-up now includes the University, the School for the Deaf and Blind and the Provincial Normal School.

In the public and high schools, each child is inspected by the nurse yearly and examined four times in the school life of the child, unless for special reason, such as the finding of a defect by the nurse or suspecting of poor health by the teacher, and all athletes participating in competitive sports. You were advised some two years ago of the method of classifying children; *i.e.*, if a child be below the accepted standard, search is made for the cause which must either be within the child or within his environment. The nurse advises the parents to consult their own doctor. Correcting defects has occurred in 1939-40 in 61% of defects found (Richmond 84%).

As you are aware, iodine tablets are given, parents signing the request to all children under 12 years who have no palpable thyroid. Should we eliminate the thyroid examination and give it to all children of this age regardless? We should appreciate some advice on this point.

It is realized that physical examination of the child alone is too limited to achieve lasting results. The whole educational programme is now directed toward healthier citizens; therefore, the doctors and nurses confer with the teachers on health teaching. In order to further promote health work in schools, a programme of 15 lectures has been developed. As an experiment this past summer, at a refresher course for teachers, a series of lectures supplemented by the various immunological tests and immunizations was carried out. The success of this has resulted in the above mentioned course. To cover all teachers in Vancouver in the time available will take approximately 2½ years. The lecture course is serving to make the teacher a more potent factor in health work regarding her charges.

At the same time as the didactic work for the teachers is proceeding, a new class room health record is under experiment. By having the school physician, nurse and teacher confer on each individual child, it is hoped a definite health personality study of the child will be made, with a better understanding, and therefore better results, being obtained.

Dental work in the schools is showing better results. There are children now attending school who received attention in the first year and who, having taken an interest in their teeth, have reached senior grades with much healthier mouths than previously.

The use of standardized lighted visual accuracy test charts in the past year has improved the visual testing considerably.

For the past two years, considerable work has been done with the audiometer. Children are tested and if below the standard are examined and referred to the family physician. A greater degree of accuracy in testing has resulted and better placement of the child in the classroom is helping many children.

The special sight-saving, and now speech training and lip reading, classes are carried on in co-operation with the school health services.

In the past two years, a definite Mental Hygiene programme has been in the process of development. It is recognized that there is no specific means of preventing the functional mental diseases, but just as healthful living has helped individuals in the field of physical health, so will hygiene in the mental field.

By Mental Hygiene one does not mean psychiatry of the juvenile, but rather by observing certain trends in the child's behaviour to redirect these and prevent serious maladjustments occurring. At the present time, Dr. Gundry holds clinics in the various health centres at definite times; there, problem cases are referred and studied, after which a conference is held at which the health unit doctors, nurses, teachers and others interested are invited to be present. By this method, mental hygiene attitudes and ideas are spread to those interested. This, together with a number of the lectures mentioned previously, will help to expand mental hygiene.

Dr. Griffin of the National Committee for Mental Hygiene and Dr. McIntosh of the Rockefeller Foundation consider our programme here the most advanced in Canada and unique in America.

Communicable disease control continues to be of major significance in public health. The stories of the control of smallpox, typhoid fever, diphtheria, tuberculosis and many other diseases, show the places where morbidity and death rates have been reduced and the average expectancy of life increased from 30 to 70 years. However, the work must go on.

Since the inception of the present public health plan, greater and greater numbers of children are being vaccinated or revaccinated. All scientific doctors recognize the importance of vaccination, but there are still many who do not press for its use and still more who do not advise revaccination. It is known that immunity is limited in time; it is further known that a revaccination is without danger itself and causes little if any inconvenience.

Diphtheria toxoid is accepted. Here again, in view of the studies under the Connaught Laboratories, it is deemed advisable to give a re-inforcing dose after five years. In the past year, over 800 children in Vancouver Schools, who had received toxoid under two years of age, were given 1/10 of a cc. of toxoid without testing an dnone showed any reaction of any significance. This re-inforcing dose serves to keep the individual more sensitive to toxin, thus, if infected with the diphtheria organism, he is in a better position to throw it off. We would urge you to carry out this procedure. At the present time, approximately 60% of all Vancouver school children have been immunized against diphtheria.

Scarlet Fever, in Vancouver particularly, shows a high epidemic rate during the past five years. 1935 to 1939, inclusive, there were 1,893 reported cases, averaging approximately379 per year. Undoubtedly more cases than this occurred, as on the whole the cases were mild, many showing a rash for two or three days only. In the five-year period, there were only four deaths, giving a case fatality rate of 0.21. You will agree that the low mortality rate of scarlet fever bears out the statement that it is mild. It is interesting to note that the distribuion of cases is more or less localized in the city, the south and east section having a major number of cases.

When a case occurs in a classroom, the nurse inspects the throats of all children. Those showing inflammation are swabbed and the child is excluded until the swab is negative. It is, of course, well known that when scarlet fever is prevalent the incidence of throats showing positive hæmolytic streptococci is increased. It would seem, with our

limited experience thus far, that exclusion of the positives has reduced the incidence of scarlet fever. Many of you have been called to see these children in their homes and have wondered why they were excluded; this explains it. It is hoped as time elapses that we may be able to give you some positive information regarding hæmolytic streptococcus infections.

Regarding immunization against scarlet fever, the picture is still incomplete. Dr. Boyd, in Richmond schools, tested 700 children and found 70% positive to the Dick Test. He then inoculated these. One child only had a severe reaction and failed to complete the necessary five doses. 324 children were retested and one-third found to be still Dick positive; these were given 3 doses of the toxin, one only reacting. From the work it would seem that 70% of children in schools are susceptible; that scarlet fever toxin for immunizing may be used with care without fear of severe reaction; and that some children require more doses than others. The length of immunity is unknown. There is also the question as to whether or not the incidence of hæmolytic streptococci infection is reduced, or whether, the rash being eliminated by the antitoxin developed, the child is still left susceptible and therefore the opportunity of receiving prolonged treatment for streptococci infection is reduced.

It is the consensus of opinion of the Metropolitan medical staff that the use of scarlet fever toxin should be urged by men in private practice, but in the absence of an epidemic that its use should not be put on a "drive" basis as with that used with diphtheria toxoid immunization.

Regarding young women entering hospital training schools, or becoming social workers, or all individuals entering the teaching profession, it is believed that all of these should be immunized against scarlet fever as the value of this has been proven in many instances. It would be advisable with these young adults to give very small doses with which to begin the course and to watch for reactions.

Whooping cough is another of the acute diseases of children which shows a high endemic rate. We have averaged 337 cases per year during the past five years, with 3 deaths occurring in each of the past two years. Regarding diagnosis, the use of cough plates has proven of considerable value early in the course of the disease, even before the whoop has developed.

Immunization of all infants under one year should be carried out. This disease ordinarily ranks high as a cause of death in the first two years of life and sufficient evidence has been given to prove that these are preventable deaths. The vaccine made from virulent organisms given in large doses is satisfactory.

Pertussis is really a problem of infancy and the pre-school period, not causing many difficulties in the older age groups.

Measles—Rubella not having been common in 1938-39, we are now having many cases, 125 being reported in the last two weeks of November. The use of convalescent serum, obtainable at the Provincial Laboratories, is definitely indicated in children under four years of age. Measles, while called simple, may assume serious proportions under four years, and is to be treated with respect at all levels of childhood in view of the complications. Many physicians report good results with the placental extracts, as with the serum, reducing the severity of the attack.

Acute anterior poliomyelitis has not occurred in Vancouver since 1938, and in the past 5 years has averaged only 4 cases per year. The use of the convalescent serum has not proven of any value and in conjunction with the Provincial Board of Health, we have ceased collecting it.

Typhoid and Paratyphoid vaccines are to be urged for contacts and those participating in special work. Here, as with other vaccines, the use of a small initial dose will frequently eliminate reactions.

With respect to the Venereal Diseases, the part played by the Metropolitan Staff is too limited. In certain instances, any or all members of the staff assist in follow-up work regarding known cases, and of course in the educational end we do assist. It is the hope of Dr. Williams and ourselves to have the local units participate to a larger extent.

The programme of tuberculosis control would be incomplete without the activities of the nurses and medical officers of our staff. Every case is visited, unless a special request is received to do otherwise. Our work is educational, to see that the patient is following instructions and taking proper precautions. We urge examination of all contacts.

Tuberculosis continues to be a health problem of considerable importance. In spite of an intensive programme, the death rate per 100,000 population remains essentially unchanged. The average death rate for the past seven years is 64.1; for 1939, it was 57.6. While the death rate has changed only slightly, there has been a shifting in the age at which deaths occur. The death rate among Japanese has been reduced from a five-year average of 157.88 to 67.48 in 1939. The Chinese death rate has shown an increase and here is one of the big causes of our continued high rate. The death rate among Chinese shows a five-year average of 254.41; and for 1939, 323.50. Regarding the white population, the five-year average is 49.31; and for 1939, 48.6.

In the public health field, we are hoping to have improved legal means of attacking this problem. There is still greater need for examination of contacts by physicians in private practice. Other cities have reduced their morbidity and mortality rates—why not Vancouver? Other cities have not the facilities that are available here; we must become more tuberculosis conscious. Dr. Vrooman and his associates laid the foundation for improved results and Dr. Hatfield and his staff have continued and expanded, therefore, in order to bring greater effort, it remains for the men in private practice.

One final word regarding the biological products used in combating communicable disease. It is hoped by the beginning of the year that free distribution will include fever toxin and pertussis vaccine. Special arrangements are being made through the co-operation of the Provincial Board of Health in bringing this about.

Health Services of the University of British Columbia and the Provincial Normal School, Vancouver.—The purposes of these services are essentially the physical examination of all entrants and the instruction of the students in proper health habits. It is felt that these two groups, future potential leaders in the community, should receive the basis of a scientific approach to health, so that ultimately in their respective spheres they may influence and augment public opinion in the necessity for periodic examination and sound health practices. Therefore, the purpose of the initial examination and subsequent follow-up is primarily educational in nature. Students with remedial defects are urged to have these defects corrected, and frequent contacts are kept with students showing defects which might influence adversely their academic and later careers. In addition, all students receive a tuberculin test and, if necessary, a chest X-ray, and any other biological test which may be required. In this, we have the co-operation of the Provincial Board of Health through the Divisions of Laboratory, Tuberculosis and Venereal Disease Control, who make such tests possible.

A Mental Hygiene programme has recently been evolved, and efforts are made to screen out early those students who show neurotic manifestations and symptoms of early mental disease. The Director of Mental Hygiene has frequent consultations with such students, with again the prevention of future disability as the keynote of the programme.

Immunizations are offered to the students, and in the Provincial Normal School especially, the response has been extremely good. Potential teachers realize their responsibility for protecting their own health, and in regard to the safety of the health of their future young charges and the community. A teacher is not fitted to teach health if he or she ignores the fundamentals of immunity and the protection afforded by our present-day immunizing agents. Practical demonstrations in health procedures are supplemented by didactic instruction in health subjects.

You have noted the inclusion of cancer and industrial hygiene in the programme of activities. Dr. Kitching represents the Metropolitan Health Committee on the Cancer Committee and it is hoped that our part in this work will expand. Industrial hygiene, because of limited facilities for study, is touched only superficially to date, but is a phase of public health work of considerable importance.

You will have noted in all our work that education is the keynote. Where there are regulations, we ask for their application by educational means rather than by legal force.

In closing, I would like to quote a few statistics:

Estimated population (Vancouver)	263,974
General death rate	9.4 per 100,000
Birth rate	16.5
Natural increase	5.8
Infantile mortality	26.8
Maternal mortality	2.29

Fellow members, the health of the people is the first duty of government. The skill through which that health may be assured is in your hands mainly. It is my belief the Vancouver medical profession is demonstrating that skill, by the prevailing rates of morbidity and mortality. May you continue as in the past. On behalf of the Metropolitan Health Committee, the City Council and myself—Thank you.

STEWART MURRAY,
Senior Medical Health Officer,
Metropolitan Health Committee.

THE "REINFORCING" DOSE OF DIPHTHERIA TOXOID

METROPOLITAN HEALTH COMMITTEE.

The marked reduction in the incidence of diphtheria in Vancouver may be attributed to the increasing use of diphtheria toxoid by the Health Department and practising physicians. In 1928, Dr. Harold White, Senior School Medical Officer, through the pages of this Journal (November issues, 1928), urged the practising physicians to give toxoid. An extensive immunizing campaign was started which has been continuous. What has been the result? In 1929, 548 cases of diphtheria were reported and 20 deaths. In 1939 there were four cases and no deaths. Similar and even more striking reductions have occurred in other Canadian cities. It can be said that today the children of Vancouver are growing up in a relatively free diphtheria environment. Let us not, however, be too complacent, but redouble our efforts so that every infant in Vancouver receives the protection conferred by toxoid. Diphtheria has not been wiped out and is waiting around the corner to trap the unwary. An immunized community is our best protection against diphtheria.

For some years more and more babies in the first and second years of life have received three doses of toxoid. It has been assumed by some, and too often stated, that three doses of toxoid will confer permanent immunity against diphtheria. Such is not the case and such beliefs have never had scientific confirmation; they are mostly the result of wishful thinking.

Recently, Dr. D. T. Fraser of the Connaught Laboratories, University of Toronto, has presented figures to show that following toxoid, antitoxin levels in the blood do drop, significantly in some cases. This does not necessarily mean that all individuals again become susceptible to diphtheria, but it does indicate that some may. Quoting from Dr. Fraser's article:

"It is evident from the result of these studies that within four or five years a not inconsiderable number of children require reimmunization or perhaps better expressed, reinforcement of their immunity. . . . It may be confidently stated that infants given

toxoid under one year of age should be given a subsequent 'reinforcing' dose at least once before entering school at age of five. This reinforcing dose may be 0.1 to 1 c.c. given subcutaneously. The advantage of the small dose is that a reaction test is not required before the administration of toxoid."

The Metropolitan Health Committee, through the spring toxoid campaigns in the schools this year, recommended that children in the first three grades who had received three doses of toxoid more than four years previously be given a "reinforcing" dose of 0.1 c.c. subcutaneously. The response was encouraging and a total of 835 such children received the single dose. No reactions of undue severity, either local or general, were observed.

The Metropolitan Health Committee, therefore, recommends this procedure to practising physicians. With an increasing number of infants being immunized, parents should be urged to have such children given a "reinforcing" dose of toxoid before entering school.

It is recommended that if a dose greater than 0.1 c.c. be given, a reaction test first be performed to denote undue sensitivity to toxoid. Fortunately, it appears that the stimulus afforded by a small reinforcing dose is as effective as a larger dose in raising the level of circulating antitoxin.

For adolescents and adults it is recommended that before giving toxoid a Schick test be performed. A few individuals in this class may be immune and the diluted toxoid contained in the Schick control may provide the stimulus of a reinforcing dose in raising the level of circulating antitoxin in an individual previously immunized. Dr. Fraser states that 75 per cent of reactors, *i.e.*, individuals showing skin reactions to diluted toxoid given intradermally, have an antitoxic immunity to diphtheria, which means antitoxin is present in the blood. Such antitoxin can only be presents as a result of previous disease, casual infection, or as a result of immunization. Infants up to six months of age may possess a degree of natural immunity to diphtheria, dependent upon th ereserve of antitoxin carried through maternal blood.

Reference— Fraser, D. T.: Can. Pub. Health Jour., 1939, 30:469.

British Columbia Medical Association

(Canadian Medical Association, British Columbia Division)

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MESSAGE FROM THE PRESIDENT

" . . . and Goodwill"

The missing word needs no explanation or elaboration, nor is it the first time in your life and mine that we have had to eliminate the hope of immediate peace from our hearts at this Christmas Season. As a profession we are essentially men of peace and men of Goodwill. With peace denied us, and for the best of reasons, let us put special emphasis on Goodwill this year. Goodwill toward all whom we contact—neighbors, patients, friends. With more Goodwill abroad in the hearts and souls of men, peace must eventually come—and some day come to stay.

To each and every member of organized medicine—You and Yours—

Happy New Year.

Murray Blair.

CANADIAN MEDICAL ASSOCIATION NOTES

Report of the Executive Committee

(Taken from Canadian Medical Association Journal, December, 1940)

The Executive Committee met in Ottawa on October 24 and 25, 1940, with all members but two present. Among the sixty-five items on the agenda the following will be found to be of interest to our members:

Preliminary arrangements have been completed for the Seventy-second Annual Meeting to be held in the Royal Alexandra Hotel, Winnipeg, on June 23, 24, 25, 26, 27, 1941. The Saskatchewan Division has arranged to conduct its annual business session in Winnipeg on that occasion.

The Alberta Division has recommended that the Annual Meeting in 1942 be held in Jasper.

The Canadian Medical Institute reported that policy holders now accepting periodic health examinations under the auspices of the Institute may consult any doctor of their choice without reference to a nominated list. This is in line with recommendations made by the Association from time to time. The decision will be welcomed by the profession.

The Cancer Department reported on the statistical study of cancer cases reported by various Study Groups throughout Canada.

Dr. M. R. Bow, of Edmonton, was appointed Chairman of the Committee on Public Health, vice Dr. F. W. Jackson, of Winnipeg, who was forced to resign because of ill health.

It was decided to reprint in booklet form the twelve articles which have appeared in the *Journal* from the pen of Mr. H. H. Wolfenden, consulting actuary of the Association. The booklets will be distributed to the profession with the compliments of the Association.

An analysis of gift funds received by the Association during the past fifteen years discloses that a sum exceeding $500,000 has been donated to the Association during this period to be devoted to the following activities: Extra Mural Post-graduate Education, Hospital Service, Health Education, Cancer, Radio Broadcasting, and Nutrition. During this fifteen-year period the gift funds of the Association have exceeded membership fees.

The membership for the year 1940 is 4,644, which is a gain of 611 over the year 1939.

Plans for a membership campaign were further developed, and it is understood that all the Divisions propose to undertake a thorough canvass of the profession in the respective provinces in the immediate future, having in view bringing into membership every eligible medical practitioner in Canada.

The Committee had a very satisfactory interview with Major-General LaFleche, Associate Deputy Minister of the Department of National War Services. The medical aspects of recruiting were discussed and plans well advanced for suitable arrangements being carried out for hospital internes and medical students to receive their month's training at the most convenient season.

A very satisfactory interview was held with Major Power, Minister of National Defence for Air, and arrangements were complete to co-operate with the air service in a manner analogous to the co-operation which has existed between the Army and the Association since the outbreak of the war.

On the recommendation of the Section of Ophthalmology, an inquiry has been instituted throughout Canada with respect to the medical teaching which is being given to non-medical students in this field.

The Section of Pædiatrics recommended the issuing of a small booklet on immunization. This question is being studied with the Public Health Departments.

With a view to making our *Journal* more attractive to our French-Canadian colleagues, the Editorial Board was authorized to develop communications and abstracts in the *Journal* in the French language.

The Committee learned with satisfaction that reciprocity had been granted to Cana-

dian medical graduates by the General Medical Council of Great Britain for the duration of the War.

The conferences which have been held in the east and the west in past years have been so successful that it was agreed that the principle of zone conferences be approved, and these will be held from time to time as desired by various sections of Canada.

It was agreed that steps should be taken to keep senior medical students and internes more thoroughly acquainted with the aims and objects of the Association in order to enlist their allegiance and membership at the earliest opportunity.

The Executive welcomed most heartily into affiliation the First Canadian Division Medical Society, now overseas.

It was agreed that, on the recommendation of the respective Divisions, members of the Association engaged in full time military service, and not engaged in any form of private practice, will be exempted from the payment of the annual fee for the year 1941.

The question of receiving and caring for the British War Guest children was again reviewed. The profession in Canada is ready to receive 1,500 of these children when and if arrangements can be completed on the other side to send them out. Medical care of all war guest children was left to the individual provinces to deal with.

The Code of Ethics has now been made available for distribution throughout Canada, 5,000 copies having been printed in the French language.

The four Western Provinces reported splendid annual meetings held in sequence during the month of September, when they were visited by a team of travelling speakers, including the President, Dr. Duncan Graham, Dr. Harold Wookey, Dr. Walter Scriver, Dr. J. H. Couch, and the General Secretary.

Income Tax regulations have been revised and are of interest to the medical profession. It is anticipated that a final statement from the Department will be available for publication well in advance of the time for making returns for the year 1940.

The Honorary Treasurer reports that, despite the war, the finances of the Association are in a satisfactory condition. As Managing Editor, he also reports that the advertising account in connection with the *Journal* may be regarded as satisfactory.

Correspondence with the Foreign Exchange Control Board was tabled, dealing with the question of medical certification of Canadians desiring to proceed to the United States for medical treatment or other health reasons. With a view to conserving American exchange, permission to go to the United States for health reasons will only be granted under extreme circumstances.

The Hospital Service Department reports another useful and satisfactory year.

The question of Industrial Medicine, having regard to the pressure under which Canadian workers are placed due to war activities, is being studied by the C.A.M.C.

The foregoing summary will indicate to the members the diversity of interests and problems which your committee has to consider.

All of which is respectfully submitted.

T. C. ROUTLEY, *General Secretary.*

SPECIAL ANNOUNCEMENT RE INCOME TAX

In connection with the Income Tax Memorandum published in the December issue of this BULLETIN, we are advised that Article 2, Sub-section (h) has been changed to allow depreciation for $1800.00 instead of $1500.00 on motor cars.

College of Physicians and Surgeons

President ..... Dr. L. H. Appleby, Vancouver
Vice-President ..... Dr. W. A. Clarke, New Westminster
Treasurer ..... Dr. W. E. Ainley

Members of the Council—Dr. J. Bain Thom, Trail; Dr. Thomas McPherson, Victoria; Dr. Gordon C. Kenning, Victoria; Dr. Osborne Morris, Vernon.

Registrar ..... Dr. A. J. McLachlan
Executive Secretary ..... Dr. M W. Thomas

MESSAGE FROM THE PRESIDENT

To the Members of the College of Physicians and Surgeons:

In these troublous times, we can still derive more than a little comfort from living in a land where freedom of expression still prevails—hence this greeting.

The true spirit of the season—Peace on Earth—Good Will to Men—lies in the happy assurance that eventually the problems of the present conflict will be solved by the triumph of Right over Might.

Happy 1941.

Lyon H. Appleby.

A CASE OF PELLAGRA

S. E. C. Turvey, M.D.

The patient was a female, aged seventy-four, who had been resident of an Old Folks' Home for the past five years. During that time her diet had been very inadequate. Thus, her breakfast and lunch consisted chiefly of tea and toast, and her supper of the same articles with boiled vegetables or meat added in small quantities once a week. She rarely ate any fruit and never any fresh fruit. During this five years she had lost twenty pounds in weight, and the last year had developed loose stools, a sore tongue, numbness and tingling in her hands and feet, a mild itchy rash over the backs of her hands and wrists, over the front of her neck and slightly on the lower aspect of both shins. In addition, she had developed a degree of mental disturbance that amounted to dementia and was uncontrollable at times.

On examination, she had a "raw beef" tongue, which was smooth, dry, glazed, and bleeding at several points. The pharynx also was dry and glazed and she had difficulty in swallowing. She said that her tongue burned constantly so that she was unable to sleep. Her memory was very poor, she wept easily, and she thought the attendants were trying to poison her. Neurological examination revealed absence of vibrations and postural sensibility in the legs and absent knee jerks and ankle jerks.

The combination of dementia, diarrhœa, dermatitis, and a very sore tongue suggested a diagnosis of pellagra, particularly in a person whose diet had been woefully inadequate for five years. She had previously been given injections of liver extract, 3 cc. Lederle's Concentrated twice weekly for a period of three months without any improvement in her symptoms. Her blood picture showed a mild degree of hypochromic anæmia but no evidence of pernicious anæmia. She was given 300 mgm. of nicotinic acid daily intramuscularly and made an amazing recovery. On the second day she was able to sleep six hours and said she enjoyed her food. On the third day the burning seasation in her tongue was relieved and she was asking for a newspaper to read. Within ten days her diarrhœa had stopped, her mind was much clearer, she was eating well, and her general strength was greatly improved. At this time she was also given crude vitamin B preparation by mouth, which included thiamin chloride as well as the nicotinic acid, and in two months she was feeling well again. The dermatitis disappeared entirely, she had no more diarrhœa, she was able to follow news events and current events in her community quite well, and had regained ten pounds of her weight.

« Medical Economics »

THE COSTS OF HEALTH SERVICES

* * * *

(11) The Nature and Utility of the Available Statistics

By Hugh H. Wolfenden, F.I.A., F.A.S., F.S.S.

The periodical information concerning the progress of the several voluntary Canadian plans—the "check-off" system in the mining industry of Nova Scotia and Cape Breton; Associated Medical Services, Windsor Medical Services, and the Hollinger Employees' Medical Services Association in Ontario; the Firefighters' Medical Service in Winnipeg and the Manitoba Hospital Service Association; the Associations in Saskatchewan; and the proposed Medical Services Association in Vancouver—also constitutes an important and practical body of evidence covering the statistical and financial results to be anticipated under different operating methods.

Close study of the experiences of these organizations shows, of course, that their growth, efficiency, and costs depend vitally upon (a) the class of membership, (b) the type of organization, (c) the limitations and rules governing the benefits, and particularly (d) the quality and efficacy of the direction and control. The cohesive memberships of associations like those of the Hollinger mine and the Winnipeg Firefighters are obtained almost automatically, and can be controlled firmly—even rigidly—without establishing antagonisms; the employee groups which are the main objectives of the Windsor and Vancouver plans are less easily secured, though a comparatively small number of such groups will give a broad basis of operation, with opportunities for simplified administration; the preponderantly individual contracts of Associated Medical Services necessitate more attenuated administrative methods, and cannot be handled by such inelastic rules and orders as those appropriate for an employee group.

These essential differences are naturally reflected in variations between the cost figures of such plans. For that reason it is usually difficult to reduce all the data to a strictly and reliably comparable basis, and great care must be exercised in any attempt to do so. Certain general indications, however, may be stated, with the specific reservation that they should be taken as representing only the approximate regions in which the several costs may be expected to lie, and that considerable variations may be shown in some or all of the constituent items as a result of differences in available facilities, scales of payment, and type of plan. Thus for an urban group of males, females and minor dependants there is much evidence to show that for minimum essential services (including confinements, and excluding dentistry and preventive services) the costs would ordinarily lie between about **$17.50 and $22.50 per annum** for each person included in the group (*i.e.*, as an average for every individual, whether or not he makes any claim for services), and that over a large group a similar average contribution of about **$18.00 per person per annum** would cover the required services in approximately the following proportions: General Practitioner, $5.00; Specialists and Surgery, $3.00; Hospitalization and Nursing, $5.00; Laboratory, X-ray, etc., $1.00; Drugs and Appliances, $1.50; Administration (15%) $2.75; giving a total of $18.25. Under the conditions of some rural practices, of course, wide changes would occur in these tentative allocations, and for either urban or rural communities much will depend on the percentage of any stated fee schedule which is to be secured.

Quotation from August, 1940, issue of *The Canadian Medical Association Journal.*

COMPARISON OF MONTHLY COST OF SELECTED PLANS

(These plans are comparable with slight varying differences in extent and nature of services.)

	Cost for Employees Only		Cost per Each Employee for the Average Family of 3 and 1 Unmarried Employee (4 Persons)	
	Medical and Surgical Care	*Medical, Surgical and Hospital Care*	*Medical and Surgical Care*	*Medical, Surgical and Hospital Care*
British Columbia:				
*Consolidated Mining & Smelting Co. of Trail—$2.80 each employee whether with or without dependants				$2.80
*Comox Logging Co. at Comox—$2.00 employee without dependants; $4.00 employees with dependants				3.00
Telephone Employee—Plant Group earning over $100 a month—$2.50 each employee whether with or without dependants				2.50
Medical Services Association	$1.00	$1.50	$2.00	3.00
Ontario:				
Associated Medical Services Inc.—$2.00 subscriber, $1.75 wife, $1.50 1st child, $1.25 2nd child, and $1.00 3rd and subsequent children		2.00		3.62
Windsor Medical Services Inc.—$1.50 subscriber, $1.25 wife and $1.00 1st child, 75c subsequent children	1.50		2.62	
Hollinger Employees' Medical Services Association—$35.75 employees without dependants and $47.45 employees with dependants (yearly contribution)				3.46
California:				
California Physicians Services—$2.50, employees only enrolled		2.50		

* Choice of doctor restricted. Others have wide choice of doctor.

REPORT OF CASE OF PELLAGRA

W. T. Ewing, M.D.

Pellagra is so unusual in British Columbia that it has rarely been considered a possibility in differential diagnosis. As there are no specific tests for pellagra, at least several of the recognized signs and symptoms must be present, and the therapeutic response must be dramatic before the diagnosis can be corroborated. Such criteria were present in this case.

A Scottish widow, sixty-five years old, was first examined by me in September, 1939. She was living in cramped quarters behind a business shop, and was having what was called an attack or spell of headache, dizziness, photophobia, and weakness. She was in bed, and appeared to be well nourished and to have a good colour. Her eyelids were half closed and quivered as she looked at me. She spoke in a low shaky voice. The blinds were drawn, the lights shaded, the daughters tip-toed about the room, speaking in whispers as they changed cold cloths on her forehead. The patient had had many such "spells" which both she and her daughters feared were "heart attacks," as she had been been told she had heart trouble. Physical examination was negative except the pulse rate was 110, quite regular and of good quality. The blood pressure was 170/100 but otherwise nothing abnormal was noted. My first impression was that she suffered from moderate hypertension together with a marked degree of psychoneurosis. With rest in bed, with Frosst's 222 for headache and phenobarbital for sedation, she regained her former "poor" state of health in a few days.

From this time until her admission to hospital on May 30th, 1940, I examined her four or five times. During this period she continued to have these "spells" much as described above, although new symptoms were added from time to time. On one occasion it was numbness and tingling in her left arm and leg with sharp head pains, chiefly on the right side. She stated that she had not really felt well for years and that she had begun to have "head spells" twenty years previously. Following one severe attack in September, 1939, she had difficulty in walking.

Her apptite was poor and she complained of nausea and occasional vomiting. As she had fixed ideas as to what food she should or should not eat, her diet for the most part was inadequat.e

An eye specialist to whom the patient was referred found her glasses satisfactory. He reparted fairly marked arteriosclerosis of the retinal vessels and suggested migraine as a possible explanation of her attacks.

By April of this year, seven months after I first examined her, although her general appearance was unchanged and no new physical signs had developed, she had become so weak that she spent most of her time in bed. She now complained of sharp stabbing poins down the fronts and sides of both thighs and unbearable pain across the tops of both feet on standing. There was no joint involvement but the muscles were tender to even light pressure. Her headaches by this time had practically disappeared. The following laboratory examinations were carried out:

Blood count: Red blood cells, 4,970,000; hæmoglobin, 80%; white blood cells, 9,700; film normal.

Sedimentation Rate (Cutler): 15 mm. in 15 minutes; 28 mm. in 60 minutes.

Kahn negative.

Urinalysis: Specific gravity, 1013; trace of albumen; hyaline casts; no sugars.

A month later, there was no improvement and the diagnosis was not entirely satisfactory. On May 18th, the patient was seen in consultation by Dr. Turvey, who noted the following complaints: Weakness, blurring of vision after five minutes of reading, specks before the eyes, dry mouth and throat, pains in the feet on standing, pains in the thighs, photophobia, backache, poor appetite and occasional nausea. He corroborated the previous eye findings and blood pressure readings, and reported no neurological findings. The following alternative diagnoses were suggested:

1. Uræmia.
2. Avitaminosis.
3. Bromidism (for three weeks, nistead of phenobarbital, the patient had been receiving 10 gr. of sodium bromide three times daily).
4. Psychoneurosis.

As her non-protein nitrogen showed 36 mgm., uræmia appeared rather unlikely.

Lederle's Vitamin "B" Complex was given by mouth. Then days later I was called again. The patient was now very ill. She was semi-comatose but could be roused, although she apparently did not recognize anyone. The breathing was stertorous. The temperature was 99 and the pulse rate 100. There was a dry, erythematous rash across the front of the neck from chin to clavicles, extending equally on both sides and resembling a sunburn. It had been present three or four days. The tongue and pharynx were swollen, deeply reddened, very dry, and partly covered by dry sticky mucus. She muttered incoherently and was quite unco-operative. All the muscles were tender but the neck was not rigid. The pupils were equal, round, and reacted to light. The patient was admitted to hospital. Laboratory examinations carried out at this time were as follows:

Blood count: White blood cells, 10,400; polymorphonuclears, 77%; lymphocytes, 18%; monocytes, 3%; eosinophiles, 2%; hæmoglobin, 84%.

Urinalysis: Specific gravity, 1025; albumen, +2; white blood cells, +3.

Lumbar puncture revealed normal fluid under normal pressure.

Breath sounds appeared to be suppressed at the right base, and in view of this, as well as the sore throat and temperature, Dagenan was prescribed by mouth but was later changed to Solu-Dagenan because of vomiting. At the same time, Lederle's Pellagra Specific, 5 c.c., was given intramuscularly. For the next five days, this amount was given at first four and then three times a day. The Dagenan was discontinued after two days. (Each 5 c.c. bottle of Pellagra Specific contains 75 mgm. Nicotinic Acid and 10 mgm. Thiamin Chloride, so that the heaviest daily dose was 300 mgm. Nicotinic Acid and 40 mgm. Thiamin Chloride.) Her improvement was amazingly rapid. On admission, she had been placed on the "seriously ill" list. On the third morning, she wanted to be propped up in bed to read the morning paper. The tongue an dthroat had improved tremendously and the dermatitis had almost disappeared. For about ten days, her mental state varied. At times she would be bright and cheery but later in the day she might be quite depressed, suspicious of the nurses and the food, trying to get out of bed when not carefully watched. She continued to have attacks of nausea irregularly and occasional vomiting. The temperature was now 99 to 101, and the pulse rate 100 to 130. After the first rapid change her improvement was slower, but in 16 days she was well enough to walk to her car and leave the hospital. After the injections of pellagra Specific were stopped, an equivalent amount of nicotinic acid and thiamin chloride was given in tablet form by mouth. (Five nicotinic acid tablets, containing 50 mgm. each, and six thiamin chloride tablets, contining 5 mgm. each.)

Three months later, her daughter tells me that she is better than she has been for years. She has a good appetite and eats a good, varied diet. She has had no further vomiting and practically no headaches, but cannot walk very far because her legs are not very strong, although improving steadily.

AN UNUSUAL CASE OF EPILEPSY

C. E. Gould, M.D.
S. E. C. Turvey, M.D.

A fifty-two-year-old white male was admitted to the Vancouver General Hospital in 1940, with a history of dizzy spells that went back twenty-four years. The first of these "spells" occurred while he was out on a working party at Ypres, and consisted of a very brief period of dizziness terminating in a loss of consciousness lasting only a second or two. Following this episode he felt normal, and was able to continue his work. Episodes of a similar nature occurred once or twice monthly, and caused him no great inconvenience until one year ago, when he developed a severe pain at the back of the right side of his head, which was sufficiently intense to keep him awake at night. This pain lasted about a week, and was terminated by an attack of "blankness" that lasted about a second, during which he fell to his knees, and on getting up "everything was going round and round" and "if I wanted to go one way I had to head off in another." This was accompanied by a bad taste in his mouth. This pronounced vertigo lasted two or three minutes. With this attack the severe pain at the back of his head disappeared, and was replaced by a burning sensation that has persisted up to the present time. Following this attack of vertigo he had had almost constant ataxia and dizziness, and on several occasions was unjustifiably accused of being drunk. During the last year this dizziness has been punctuated once or twice weekly by attacks of vertigo necessitating that he brace himself against a wall or go down on his knees. If he lies down the room goes around. There is no history of vomiting, tinnitus, ocular phenomena, or headache other than as described above.

There were no relevant details in this man's personal, past or family histories.

Physical examination revealed no abnormalities. The blood pressure was 138 systolic and 92 diastolic, and there was no significant variation in the readings when standing or recumbent, nor did carotid sinus massage produce any symptoms, or variations in the pulse rate or blood pressure. There were no neurological abnormalities other than absent ankle jerks. Hearing was normal in both ears, and vestibular function as tested by Barany, Schwabach, Weber and Rinne tests was normal.

Lumbar puncture showed normal spinal fluid pressures, chemistry and cytology. The Kahn test was negative, as was the blood Kahn.

X-ray examination of the skull was negative.

A tentative diagnosis of epilepsy was made, and he was started on phenobarbital, one and one-half grains twice a day, and dilantin, one and one-half grains three times a day.

He became free of symptoms with the commencement of this therapy, and remained so until his discharge from hospital thirteen days later. He was followed in the Out-Patient Department for a further period of three months, during which time he remained free of symptoms, and was then lost sight of when he went up the coast to work, the first time he had been able to do so for over a year.

SULFATHIAZOLE AND UNDULANT FEVER

Clarence E. Brown, M.D.

The treatment of undulant fever in the past has not been particularly satisfactory. Most cases developing in Vancouver had been treated by neutral acriflavine intravenously, by vaccines of Br. abortus and by general supporting treatment.

Several cases which had come under my personal care in the past decade, after a more or less prolonged course of treatment of this type, had recovered completely. One could not ascribe the recovery to any one specific factor in the treatment.

In recent months sulfanilamide had been tried by some, and indefinite results had been reported in the literature. So far as I am aware there have been no published reports of the result of treating undulant fever with the newer compound, sulfathiazole, introduced by the Winthrop Chemical Company.

I wish to report a case treated by this compound with apparently very definite and rapid relief of the infection. One case, of course, is not conclusive, but is thought worthy of being reported.

Mrs. R., married, aged 41, was referred by Dr. Clarence Ryan, November 18th, 1940. During the previous July while at a summer resort she had developed a swelling in the right parotid region, associated with an elevation of temperature to 104°. The temperature continued somewhat elevated for two weeks and she had sweats for the first week. Headaches and lack of energy have persisted more or less ever since.

Six weeks ago, about October 1st, she again developed increased temperature, usually in the afternoons, and during the past two weeks there has been frequent profuse perspiration. She is easily tired and the headaches are very troublesome. For the past three weeks the temperature has frequently reached 104°.

On physical examination she is a small woman, showing some loss of weight, some pallor, and a moist skin. There is a systolic murmur at the base of the heart and an occasional extra systole. The heart is not enlarged. The spleen is not palpable.

On November 20th, 1940, blood examination revealed hæmoglobin 70%, R.B.C. 5,000,000, W.B.C. 9,000, and a differential count of 49% polymorphs, 39% small lymphocytes, 12% mononuclears, sedimentation rate was 25 mm. in one hour. The icterus index was within normal limits. Blood was sent to the Provincial Laboratory for Widal agglutination and culture for Br. abortus.

November 23rd, on receiving a report that the serum agglutination against Br. abortus was positive to a dilution of over 1-5000, the patient was started on sulfathiazole, 2 grams, followed by 1 gram every 4 hours. The temperature, which had been remittent between 100° and 105° from November 20th, continued elevated to November 26th, and then gradually dropped by lysis. From November 26th to November 29th it remained between 99° and 101° and subsequently remained normal. On December 2nd, after nine days, the sulfathiazole was reduced to half the previous amount, half a gram every hour hours for a day, and then four doses of half a gram, daily, for three days. In all, 64 grams of the drug were given—only nausea and lack of appetite were complained of by the patient during the entire exhibition of the drug. On December 5th the blood culture taken November 20th was reported positive for Br. abortus.

A blood culture taken December 9th still remains negative for Br. abortus.

The patient has apparently made a complete recovery so far as elevation of temperature, sweats, headache, etc., are concerned. Further observation of the effect of sulfathiazole on the course of proved undulant fever cases will be of interest.

Victoria Medical Society

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CASE OF FULMINATING PNEUMOCOCCAL MENINGITIS FOLLOWING REMOVAL OF NASAL POLYPI

Reported by DR. VINCENT W. SMITH, St. Joseph's Hospital, Victoria, B.C.

Case: Mr. X; white male; age 54 years; occupation, draughtsman.

Admitted: October 18, 1940. Discharged: November 27, 1940.

Mr. X was admitted to this hospital at 1 a.m., October 18th, and booked for removal

of nasal polypi in the morning. He was put to bed and given gr. ½ of nembutal. Apart from an occasional coughing spell, he had a good night. His temperature, pulse and respiration were normal and the morning urinalysis was negative.

His history was one of frequent colds and difficulty in breathing for several years past. The past few months he had suffered pains in the frontal region, and admitted to having been overworked—being quickly fatigued and feeling run-down. He had just recovered from a mild attack of the 'flu. He entered the hospital directly on his return from Vancouver where he had spent two days inspecting ships.

At 9:30 a.m. he was given ¼ gr. of morphine with 1/150 gr. of atropine. At 10:30 a.m., Dr. Keys gave him a local anæsthetic of cocaine and removed nasal polypi and some small spicules of bone from both nostrils. No packing was inserted. Dr. Roxburgh's Pathological Report showed infected nasal polypi.

Up to 6 a.m. the following morning, the patient followed a normal post-operative course. The temperature, pulse and respiration were normal. There was a slight serosanguinous discharge from the right nostril. The patient dozed for frequent intervals, and during his waking periods complained of pain in his nose. A total of one-third grains of morphine and one Ayerst was given for pain during this period.

At 6 a.m., twenty hours post-operatively, he complained of headache; gr. ½ of codeine had no apparent effect. At 8 a.m., he still complained of headache. His temperature had risen to 99°, with pulse and respiration normal. During the next three hours, he became drowsy and listless and complained of a bursting frontal headache. At 10:30 a.m., his temperature had risen to 102°; pulse and respiration normal. By 12 o'clock, he had sunk into a deep coma. Neurological findings were absent apart from a sluggish pupillary response to light.

Dr. Keys saw him, and a lumbar buncture was done—10 c.c. of thick, turbid fluid under a pressure of 440 HOH were withdrawn. Ten c.c. of neoprontosil introvenous were given immediately. The report on the spinal fluid was: white cell count of 14,000, and large numbers of pneumococci. A diagnosis of pneumococcal meningitis was made, and the patient placed under Dr. H. M. Robertson.

One hour later, the patient showed definite clinical symptoms of meningitis, with marked restlessness, head retraction, neck stiffness, arched back, and positive Kernig's. He showed no response to stimuli, a condition which persisted unchanged up to October 23rd—a period of four days.

He was given an initial dose of 8 gm. of soluable Dagenan; 3 gms. intravenously, and 5 gms. intramuscularly. Thereafter he received 4 gms. every four hours. In the first thirty-six hours, he received 40 gms. of soluable Dagenan. Due to a threatening anuria, the dosage was then reduced to 12 gms. a day. Thus, in the first four days up to October 23rd, he received a total of 64 gms. of Dagenan.

Twenty hour later, after receiving 24 gms. of Dagenan, his temperature had dropped to 99° and his respiration from 40 to 30 per minute, a level which remained constant up to November 3rd.

His pulse, at first irregular in quality, levelled off with an ampoule of Digifolin three times daily, and fluctuated between 70 and 100 per minute. This therapy was discontinued on October 30th.

On October 20th, a Bacteriological Report on culture from the right nostril at site of operation was strongly positive for pneumococci.

Two lumbar punctures, preceded by 1500 c.c. of normal saline and glucose 5% intravenously, were done daily for the first five days—about 25 c.c. of fluid being withdrawn each time. By the end of the fourth day, the spinal pressure had dropped from 440 mm. HOH to 240 mm. HOH, and the spinal cell count from 14,000 cells per c.c. to 530 per c.c. The spinal fluid remained strongly positive for pneumococci. Up to this time he had had 68 gms. of Dagenan.

The blood picture was indefinite. On October 21st, after 40 gms. of Dagenan, his red cell count was four and a half million; white cell count, twenty-three and a half thousand; with 92 % polynuclear and 7% lymphocytes. He was given 250 c.c. of citrated blood on October 22nd. On the 23rd, his red cell count had dropped to four million; while cell count to ten and a half thousand; with polys 70% and lymphocytes 19%.

The first evidence of returning consciousness appeared on October 23rd. From this morning on, four days after onset, the course was one of rapid improvement. The meningeal signs disappeared and he became mentally alert, although at times irrational for brief periods, particularly at night. He had no complaints. At this date, his spinal count was 530 cells per c.c. and spinal pressure 240 mm. HOH; his temperature was 99°; his pulse and respiration, normal. He had had 68 gms. of Dagenan.

The Dagenan dosage was then reduced to 8 gms. per day for the next five days; after which, it was reduced to 6 gms. daily, given orally. On October 25th, after five days incubation period, a positive blood culture for pneumococci was obtained. He was typed, and given intravenously eighty thousand units of anti-pneumococcal rabbit serum, type 6.

On October 25th, he developed hiccoughs, which persisted throughout his waking moments to November 2nd. Hoffman's Anodyne and CO_2--O_2 mixture did little to relieve this condition.

His spinal pressure continued to drop steadily. By October 28th, nine days after onset and following 110 gms. of Dagenan therapy, his pressure was normal at 90 mm. of HOH. His cell count likewise showed a steady decline: On October 28th, it was 20 cells per c.c.; on the 31st, 12 cells; and on November 4th, down to 6 cells. The last date on which a spinal culture positive for pneumacocci was obtained was on October 31st—12 days following onset. This followed therapy of 130 gms. of Dagenan and eighty thousand units of type 6 specific anti-serum.

The spinal fluid count did not become normal until seven days after a normal fluid pressure, and four days after the last positive culture for pneumococci.

From the 23rd to 31st of October, the patient had seven blood transfusions, ranging in amounts from 250 to 300 c.c.'s of citrated blood. This maintained a fairly level blood picture. On October 31st, 12 days after onset, a comparison of differentials showed polynuclear cells had dropped from 92% to 66%, and lymphocytes had risen from 7% to 31%—red blood corpuscles remained unchanged.

On November 1st, the patient having no complaints, the Dagenan was reduced from 6 gms. to 3 gms. daily, and on November 6th, was discontinued. On this date, spinal culture of pneumococci had been negative for five days and his temperature, pulse and respiration had been normal for three days.

The urine, twenty-four hours after onset, was grossly bloody and showed albumin, red cells and pus, present in varying degrees, to about November 9th—twenty-one days from onset. A negative report was obtained on November 15th, nine days following the cessation of Dagenan. The blood non-protein nitrogen on October 29th was 40 mgs. for 100 c.c. of blood.

On November 8th, the patient was allowed to sit up at the side of the bed, and on November 12th, following a second negative spinal report, he was allowed out of bed. On November 18th, he developed a phlebitis in the left leg which cleared up in five days.

From then on, he made an uninterrupted recovery, and on November 27th was discharged from hospital in apparently perfect health.

Conclusions and Summary

This was a case of fulminating pneumococcal meningitis, developing twenty hours following removal of nasal polypi. The patient had an initial spinal count of 14,000 and pressure of 440 mm. HOH. He was unconscious for four days.

The patient received a total of 2,220 grains of Dagenan, by oral, intravenous and intramuscular routes. Approximately one-quarter of this dosage was given in the first twenty-four hours, and nearly one-half the total dosage before consciousness was regained. No sulphapyridine blood or spinal levels were obtained.

Two days after the crisis, eighty thousand units of type 6 specific anti-pneumococcal serum were given, solely as a prophylactic measure to combat the tendency of recurrence.

Forced drainage of approximately 3,500 c.c. of fluid intake daily with frequent lumbar punctures were undertaken. He had a total of 17 spinal punctures.

The spinal fluid pressure returned to normal nine days after onset and the cell count was normal by the sixteenth day. The spinal fluid was sterile by the twelfth day.

The temperature dropped in twenty hours to 99°, where it remained until November 3rd.

The tendency to agranulocytosis was met with frequent small blood transfusions—a total of eight transfusions of 2,200 c.c. of blood being given.

There was a slight tendency to anuria. There was albuminuria and hæmaturia, but no elevation of the blood urea-nitrogen. This rental disturbance never became alarming and cleared up nine days following the cessation of Dagenan.

In Conclusion: from the moment of onset, the prognosis was recognized as being so grave that massive doses of Dagenan were initiated with complete disregard for complications. The response justifies our faith in the treatment of pneumococcal meningitis with Dagenan.

THE DOCTOR AND HIS PATIENTS

By Arthur E. Hertzler

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As a young doctor I was often puzzled when the minister at the funeral of a child intoned that the child was better off with its maker. No parents ever fell in with this idea. "Doctor, save our baby!" is the parents' cry. Parents do not want their children to go where the minister says they will be better off. Let the reader figure out the meaning of this for himself. I gave up decades ago, but there is something wrong somewhere.

Often as a young doctor I felt a desire to kick parents in the face for wailing to a doctor, and to an unhearing God, to rescue a dying child which had been neglected. I have heard ministers berate mothers for this act as a wilful flying in the face of God. That was religion pursuing a woman even to the grave of her child, where of all places the Christ idea should stand supreme.

I am glad that I have been privileged to live the life of a doctor close to his people. I can look at facts as I see them. I know grief in all its forms. Grief points always upwards to the cross. Here, in my clinic, I can get a clearer notion of the difference between religion and Christianity than in any other way.

We adults are just grown children. If we ask ourselves what of all things in the world touches us most deeply the answer must be: a child. This sentiment is co-extensive with life itself. It must seem that the child and what it represents, parenthood, is the fundamental problem of life.

To see patients going about the clinic—mother and son—father and daughter—the expressions on their faces indicating a joyous perambulation among the clouds, is an unending fascination to me. The relationship is subconscious. To tell a father that he has a greater affection for his daughter means a stubborn denial. He would be right, as far as conscious thought is concerned. We need to develop a vocabulary that will straighten out these relationships satisfactorily; place them in a proper light. A fine

civilization we have when the same word must cover the gentle affection of a child for his parents, and the "rights" the marriage ceremony implies. The same word includes everything from the mother's look at a nursing child to the wailing of a tomcat on an alley fence. The word is love.

Words without understanding go for naught. We think of the love of a child as spiritual love. The position of a child in a family we accept s the gauge of civilization. If we are ever to have world peace we must find a common denominator which appeals to all classes and all peoples of the world. A child is that denominator. Let them have the unqualified term "love" as synonym for something . . . usually the aberrant psychology that leads to the marriage altar. After that, sex has charge and it would serve clarity to call that sex love.

PARADISE ILLUSTRATED (THE CHILD IN THE HOME)

I regard as the chief reward for a long experience in the practice of medicine the opportunity it has given me to see so many children devleoping in countless environments. I find an unending fascination in watching the children who visit the clinic, not as patients but merely as visitors with their parents. After one has reached a certain age h eis no longer afraid to act silly in the presence of a child. Any youngster; three, four or eight, will accept a candidate for a spare grandpa.

Today's child is different, somehow. Children for the past fifty years have impressed me with two parallel changes. As ecclesiastical authority has lessened, the status of the child has improved. It's the woman's rise to a position of influence in the world which is the primry cause. A child today has emerged from simple servitude to recognition as a parent of the future.

And I may say, with due modesty, that doctors played a large part in helping mothers bring about these changes. In yesteryear, a mother could figure that she would not be able to raise all the children she bore. If she decided to raise six, she would need to bear ten. How many of them she could rear gave nobody any concern. Husbands had "rights." I have recently figured out that the reason the tomcat was given so few brains is because greater intelligence would curb his potency. A tomcat is a prototype of some of these husbands. One must say for the cat that he is frank and asks for no crown of glory. I regard this as a brilliant observation.

In days gone by, the child had itself born at the house and hence was rather a cheap acquisition. Neighbor women, invited or not, donated their services. Paying the doctor was entirely optional. I figured out that my attendance at "blessed events" brought me something less than a dollar an hour, gross. Sometimes I occupied my time while waiting, by counting the number of youngsters scattered around in the various rooms, if there were more than one room. I learned that the chances for a fee were inversely proportional to the number of previous arrivals.

The economic factor is by no means a thing of the past. That is shown by the fact that the birthrate of those on relief is going up. Kids included in the More Abundant Life are less carefully counted if the taxpayer foots the bill. Papa does not lose an hour's sleep over them.

If the child has any pride of ancestry, it will be born in a hospital. There is a disturbing fact about hospitals. With every facility for meeting emergencies. there seem to be endless emergencies to meet. Specialists in obstetrics sometimes overlook the fact that the capacity for watchful waiting used to be regarded as the baby doctor's chief virtue. The fact that childbirth, like digestion, is a physiological process is frequently disregarded.

Of course, the baby might have responsibilities which he may not appreciate. His chief dereliction is the carelessness with which he selects his parents. Any stock-breeder knows that blood counts, and that no two-quart cow ever produced a four-gallon daughter. Look over the case-book of any doctor and this fact will stand out. Poor baby, the magnitude of his lack of foresight may not appear for twenty years.

I wonder what a baby is thinking about as it lies in its bassinet, an identification disc attached to its toes, like a cadaver in the morgue. It is accustomed to a tip-toeing nurse with a face encased in a mask. Perhaps the object of that is to scare the baby to death. The wearing of masks by baby-nurses was ordered by some higher-ups who were ignorant of the bacteria of respiration. Either that, or they feared the nurse might get mad at the baby and spit in its face.

Quite aside from the achievements of pædiatricians, two factors have entered to protect the baby of this day. They are the screen and the refrigerator. Fifty years ago the number of flies in the house was limited only by the available standing-room on the baby's face. Everything, especially milk, was contaminated in spite of incessant care.

Children are now part of a social machine, wherein every child passes along from stage to stage without effort, like an object on an assembly line. The products should be identical. Already, however, home environment and heredity are beginning to show. Happily, bad home environment is modified by the guiding hand of the teacher. I have observed that whenever there is a row between parent and teacher, the teacher's judgment is usually superior because she has a little training.

Few parents take the trouble to find out how much time police spend in the effort to keep boys from committing their first crime. I think a father whose boy is in charge of the law for some minor offense should receive twice the boy's sentence. Where were the parents? They—oh, yes, bid four spades. Why should that game go on?

The doctor can sit back and watch his young friends develop normally, that is, in some cases. Occasionally in our better families, one child may be favored over another and trouble's a-brewin'. Psychoses develop, and the doctor is called upon to umpire some peculiar games or combats.

The mother often becomes uneasy with something akin to jealousy, if she feels daughter has supplanted her in father's affections. Most likely she's right; daughter did secretly and designedly purloin father's affections while mother was away some place expostulating on the state of civilization during the reign of Rameses III. Every woman should realize that when she gives her husband a daughter, she's created a skillful rival. Daughters have stolen more husbands' love than all te blonde office girls in the world.

Parental jealousy of a child is all wrong. Mother-son complexes cause more trouble than father-daughter relationships, but not because of father's jealousy. Behind it is the fear that sonny will grow up like father. When a mother sets a son against his father, the situation is loaded with dynamite. There is less of this trouble when the struggle for existence is constant and acute. When both are pushing the cast, they must stand with shoulders close together.

There comes a time when the child begins to show evidence of outgrowing childish ways, and of becoming polite. Whether the awakening is sudden or gradual, there is a difference between boy and girl. It is a change which must come. The endocrines begin to whisper a faint recognition of sex.

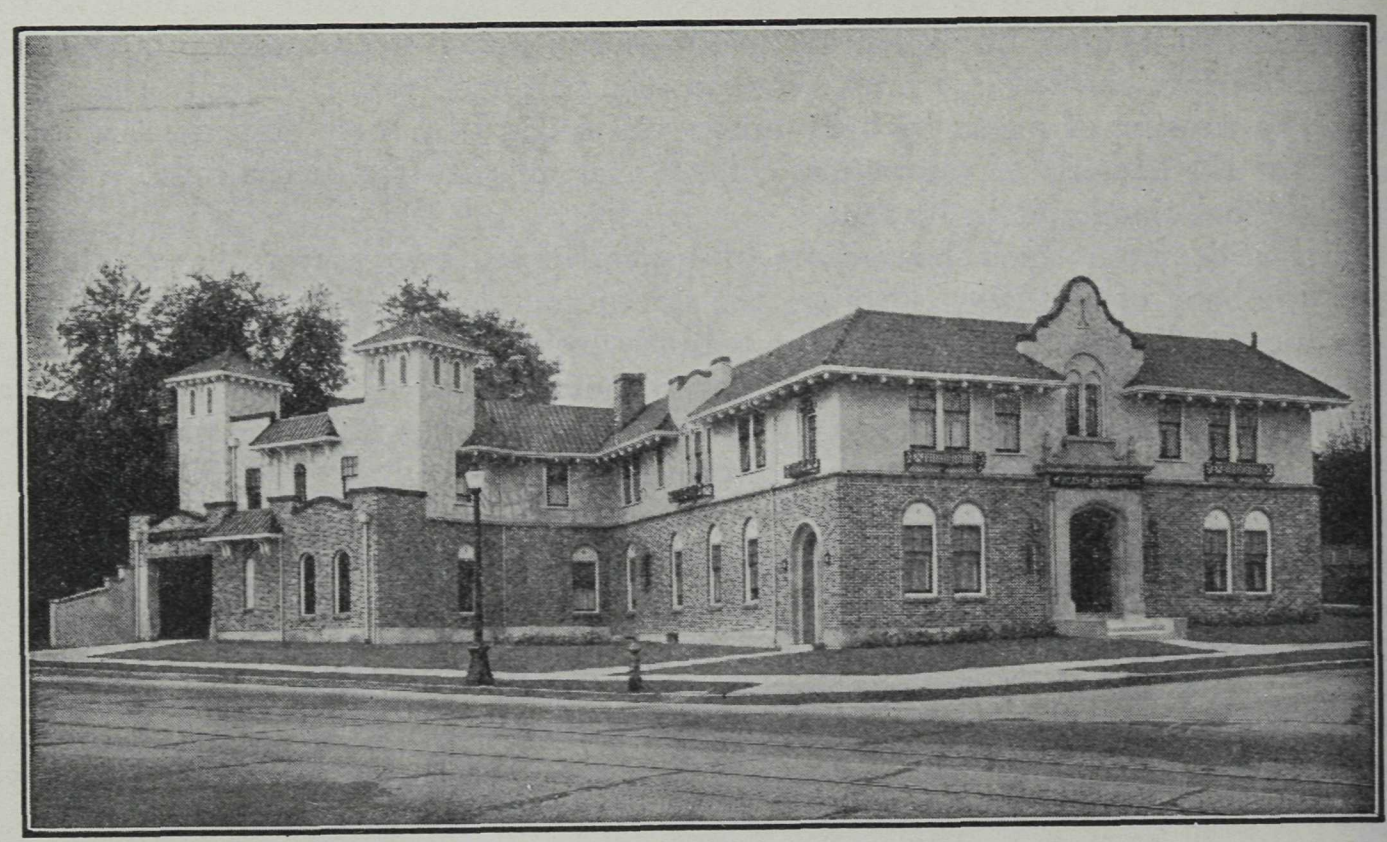
PARADISE VISIONED.

Maturity is the state of a woman who is ready, without physical injury to herself, to take on in her turn the process of reproduction of the species. The law thinks this stage of development is reached at sixteen years. We doctors know it is not reached until the twentieth or perhaps the twenty-fourth year. Nature committed a terrible mistake when she made conception possible before the time of physical maturity.

We parents make our mistake in trying to dictate to our children what to do; what not to do; how to live. We would do more good if we went out with them, to learn what they think. Young people are not interested in salvation or death. They are interested only in living.

Birth, reproduction and death are biological processes. They are controlled by laws as immutable as those which govern the planets. Those ignorant of these laws should expend their energies in some *harmless* way, such as praying for world peace or figuring how we can spend our way out of debt.

(Continued in next issue)



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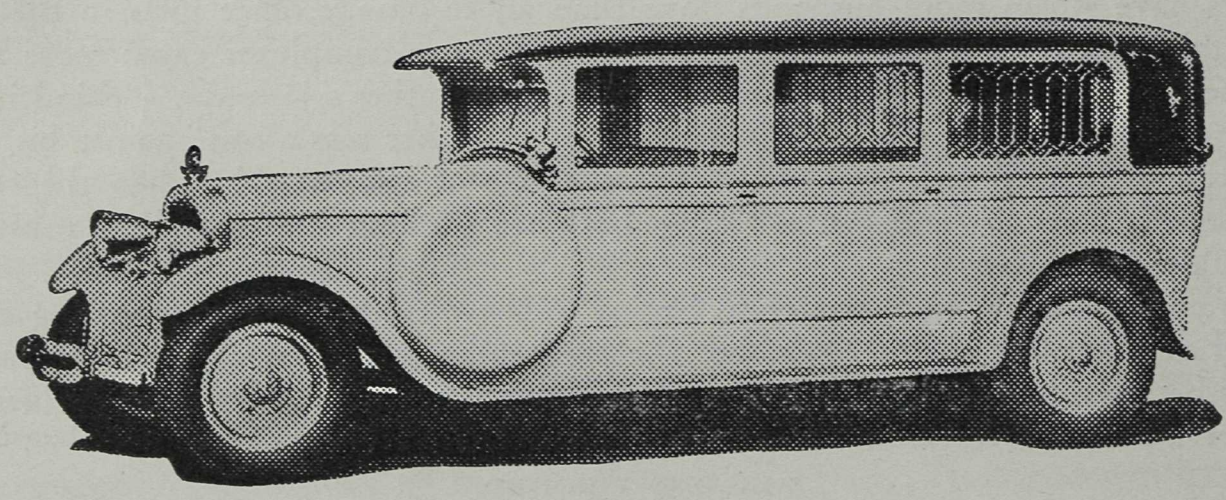

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