



The BULLETIN

of the

VANCOUVER MEDICAL ASSOCIATION



Vol. XX.

APRIL, 1944

No. 7

*With Which Is Incorporated
Transactions of the
Victoria Medical Society
the
Vancouver General Hospital
and
St. Paul's Hospital*

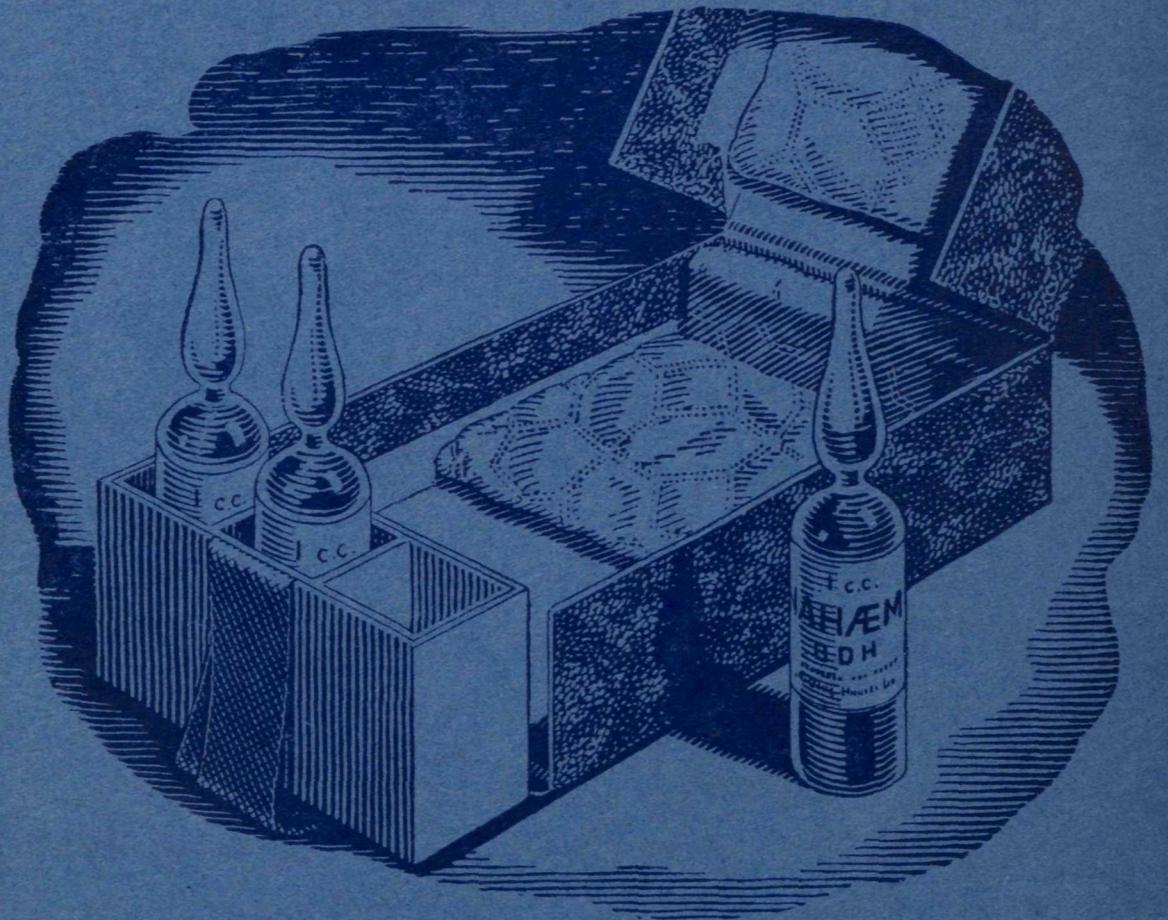
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SUMMER SCHOOL

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THE VANCOUVER MEDICAL ASSOCIATION
BULLETIN

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

VOL. XX

APRIL, 1944

No. 7

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STATISTICS—FEBRUARY, 1944

Total Population—Estimated	288,541
Japanese Population	Evacuated
Chinese Population—Estimated	5,541
Hindu Population	301

	Number	Rate per 1,000 Population
Total deaths	319	13.4
Japanese deaths	—	Population Evacuated
Chinese deaths	22	48.5
Deaths—residents only	282	11.9

BIRTH REGISTRATIONS:

Male, 339; Female, 299

638 26.9

INFANT MORTALITY:

	February, 1944	February, 1943
Deaths under one year of age	21	22
Death rate—per 1,000 births	32.9	36.2
Stillbirths (not included above)	11	8

CASES OF COMMUNICABLE DISEASES REPORTED IN THE CITY

	January, 1944		February, 1944		March 1-15, 1944	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Scarlet Fever	81	0	97	0	84	0
Diphtheria	0	0	0	0	0	0
Diphtheria Carrier	0	0	0	0	0	0
Chicken Pox	174	0	209	0	99	0
Measles	10	0	28	0	17	0
Rubella	5	0	20	0	13	0
Mumps	66	0	35	0	21	0
Whooping Cough	31	0	32	0	23	0
Typhoid Fever	0	0	0	0	0	0
Undulant Fever	0	0	0	0	0	0
Poliomyelitis	0	0	0	0	0	0
Tuberculosis	44	18	84	16	42	—
Erysipelas	2	0	2	0	0	0
Meningococcus Meningitis	2	0	4	0	0	0
Paratyphoid Fever	0	0	0	0	0	0
Infectious Jaundice	3	0	0	0	0	0

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

	West Burnaby	North Vanc. Richmond	Vanc. Clinic	Hospitals & Private Drs.	Totals
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Syphilis

Gonorrhoea

Figures not yet available for January and February, 1944.

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VANCOUVER MEDICAL ASSOCIATION

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* * * *

PROGRAMME OF THE FORTY-SIXTH ANNUAL SESSION (SPRING SESSION)

GENERAL MEETINGS will be held on the first Tuesday of the month at 8:00 p.m.

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

These meetings are to be amalgamated with the clinical staff meetings of the various hospitals for the coming year. 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.

March 7—GENERAL MEETING:

OSLER LECTURE—Dr. T. H. Lennie.

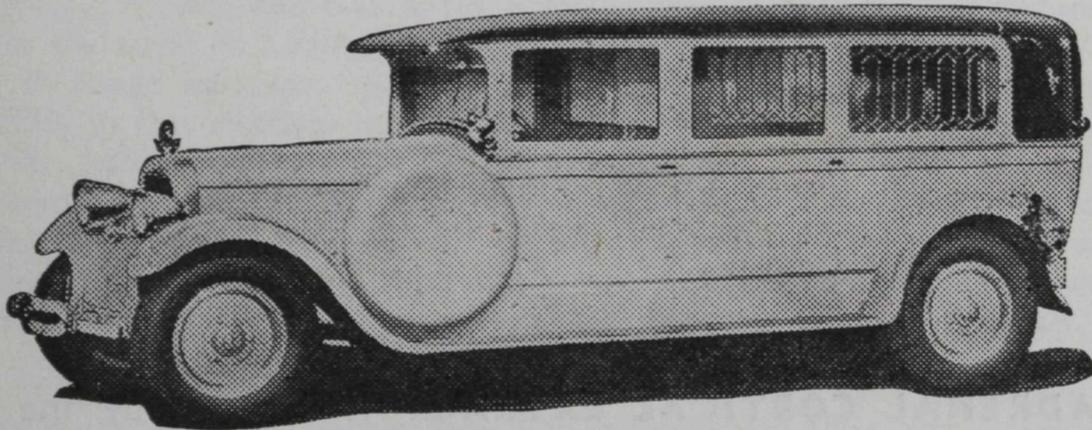
March 21—COMBINED CLINICAL MEETING and STAFF MEETING at
VANCOUVER GENERAL HOSPITAL.

April 4—GENERAL MEETING:

Dr. J. R. Davies—"Remediable Intra-thoracic Conditions in Childhood." (Illustrated by brief case histories and X-ray films.)

April 18—COMBINED CLINICAL MEETING and STAFF MEETING at
ST. PAUL'S HOSPITAL.

MAY 2—ANNUAL MEETING.



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THE EDITOR'S PAGE

The Annual Meeting of the Vancouver Medical Association was held this month, and we welcome our new President, Dr. H. H. Pitts, most cordially. We who have known Dr. Pitts for many years are very glad that he has been chosen as our leader for the next year. He brings with him, as we think, excellent capabilities and sincere loyalties, and he has the respect and liking of all who know him. We wish to him and the incoming Executive, a very happy and fruitful term of office.

And, as they retire from the immediate scene, we take this occasion to thank Dr. A. E. Trites, our past President, and his Executive, and to say that they have done excellent work. It is no sinecure these days, being President and Executive of this Association, but these gentlemen have done their work faithfully and have "deserved well" of us, as the old Romans said of one who served well.

The Annual Reports, which will be published in our next issue, show the Association to be in a thoroughly sound, solvent state. The BULLETIN in particular, is smirking a bit. Last year we were told by our auditors (good men all, but unsympathetic) that we had a deficit of some hundreds of dollars. To us this seemed merely a way of putting it. We ourselves claimed to have made a little profit and regarded the "deficit" as merely money that was owing to us, but which we had no right to collect. This year we have caught up with this, and the auditors agree that we have done so. On balance of income and outgo we show really a larger profit than we have ever made before.

The Summer School will be held next month and the programme looks very attractive. It is hoped that everyone will find it possible to take in at least part of the programme. One always wishes the Summer School were held in some place whither one could go for a holiday, and take in the School at the same time. It is so hard for one caught in the whirl of a busy practice (and who is not in these days of *sturm und drang*?) to attend meetings. But the committee in charge arranges it to the best of their ability, so that meetings do not conflict more than can be helped, with our office hours. One feels that it should be possible to squeeze out a few hours for such a worthwhile purpose. Speaking for ourselves, we can safely say that every one of these Summer School lectures is the source of good. One always gets something. Often one gets a tremendous lot. And one meets fresh minds, with a new and stimulating outlook, which is more important than the amount of new information one actually acquires.

The two big hospitals of Vancouver have recently held their graduating exercises and some hundreds of new nurses have been initiated into their new profession, to be an ever-present help in time of trouble for us and for their patients. We congratulate them heartily, and wish them all the luck in the world.

Modern nursing has become a very complex thing. In our early days, the graduate nurse was more of a nurse perhaps, and less of a technician. This is not said in a derogatory sense, as regards either generation. But the modern nurse has to learn a great deal besides plain bedside nursing. She must know a great many procedures of which her older sister knew nothing, and she must be qualified to do an entirely different sort of work. And we have specialists in nursing nowadays—specialists in public health nursing, in dietetics, in social service; not to say in tuberculosis and other highly specialized branches of medicine. And what a help and blessing to the work these women do. They carry a torch and are the pioneers in a great public health and social service programme which will come into being before many years are past, and to the implementation of which their work will be absolutely essential. If and when health insurance

comes into being, the work of the nursing profession will be equally important with that of the doctor and dentist who do the actual treatment.

There is a very crying need for nurses, not only for general duty and special nurses to treat those who are actually sick—but for educational projects along the line of health. This work which will be an essential preliminary to any such scheme, will be increasingly the means of saving life and health and cost to the community. For the experience of social workers everywhere has shown that nothing is quite so useless as symptomatic treatment of social ills, without an attack on the causes thereof. Mere giving of medical care, for instance, is quite useless, and a huge waste of time and money, unless the social work necessary is done. And nurses come in here as a most essential part of this work.

We rejoice to hear that a plan for a new and really up-to-date nurses' home is now under way at the Vancouver General Hospital. It is, as the Superintendent and Supervisor of the Nursing School, both assure us, long overdue—and we, as citizens of Vancouver, should be deeply ashamed that we have let this state of affairs obtain for so long.

* * * *

DR. J. SCOTT CONKLIN

It is with great pleasure that the writer of this is looking forward to a complimentary dinner to be tendered to Dr. J. Scott Conklin on Tuesday, May 16th, nominally by the Alumni of Manitoba University, but actually by the entire medical profession of Vancouver. The latter has shown the greatest eagerness to buy tickets for this function, at which we can have a visit from our old and valued friend, "Scotty" Conklin, who, till his enforced retirement on account of illness, was one of the best liked, most respected, and most competent of Vancouver's medical fraternity. We have missed him very sorely all these years: have missed his geniality, friendliness, and wit: and have hoped constantly that he would be able to return to the active ranks of medicine. But since this has not been possible, we are glad indeed to have a chance to see him again. Dr. Conklin was already in practice when this writer came to Vancouver, in the dark 1900's. He was one of a little band of medical men practising on Hastings Street near Carrall, and not only practising medicine most efficiently, but having a very good time as well. Danny McKay, Carder, Jim Sutherland, Hamish McIntosh (then a respectable general practitioner, till he took to the dark room and the fluoroscope) and a few other choice spirits, were associated with Dr. Conklin, and they conducted a series of researches into certain phases of human experience which, we believe, have never been equalled since.

Dr. Conklin, too, was a leading figure in our Annual Dinners in the old days when dinners *were* dinners, and his gift for entertaining was one of the great assets of the committee which was in charge of proceedings. He always gave cheerfully and unselfishly of his best, and was a most important feature of the programme. He was quite capable too, of gagging, and a fond memory stays with one of a scene in which he was engaged with another leading medical Thespian, Dr. Frederic Brodie of this city. Each had a glass of stimulant at hand, in case of faintness or exhaustion, or for any other reason. While his co-star was busily engaged in a most dramatic monologue, Scotty, who had already been forced to consume his own stimulant, felt again rather faint. Putting out his hand blindly, he came in contact with the other glass. Forgetting that he had already drunk his own, he downed this, too. The expression on his opposite number's face when, himself faint and in urgent need of repair, he reached for his dose of medicine and found it gone, has never faded from the tablets of our mind.

So we rejoice to see Scotty again, and do him honour, and tell him how fond we are of him, and wish him luck and long life and better health.

SUMMER SCHOOL CLINICS
VANCOUVER MEDICAL ASSOCIATION

June 20th to 23rd, 1944, incl.

HOTEL VANCOUVER, BALLROOM

List of Speakers and Their Subjects:

SURGEON CAPTAIN C. H. BEST, R.C.N.V.R., *Director, R.C.N. Medical Research Unit.*

The Canadian Blood Serum Project.
Recent Work on Shock and Burns.
Naval Medical Research.
Penicillin (Non-clinical Aspects).

LIEUT. COLONEL R. I. HARRIS, R.C.A.M.C., *Consultant in Surgery for Eastern Canada.*

Foot Problems in the Army and Out of It.
Fractures of the Os Calcis: Improved Methods of Treatment.
The Management of Amputations and the Use of Satisfactory Prosthesis.
The Use of Penicillin in the Management of Infected Wounds.

SQUADRON LEADER L. G. BELL, R.C.A.F., *Medical Consultant to Command Medical Board, No. 2 Training Command.*

Rheumatic Fever.
Some Psychosomatic Aspects of Gastro-Intestinal Disease.
The Diagnosis and Treatment of Headache.
The Management of Acute Coronary Occlusion.

DR. W. A. SCOTT, *Professor of Obstetrics and Gynaecology, Faculty of Medicine, University of Toronto.*

Diagnosis of Ectopic Gestation.
Antepartum Hæmorrhage.
Heart Disease in Pregnancy.
Treatment of Genital Prolapse.

DR. CLIFFORD SWEET, *Chief of Medical Service and Chairman of the Executive Committee of the Children's Hospital of the East Bay, Oakland, Calif.*

The Child in the Family.
The Child as a Patient.
The Diagnosis and Treatment of Upper Respiratory Tract Infections in Infants and Young Children—with Special Reference to Sinusitis.
The Role of Body Mechanics in the Health Examination and Care of Growing Children.

LIBRARY NOTES

RECENT ACCESSIONS TO LIBRARY:

Surgical Clinics of North America, Symposium on Abdominal Surgery, Chicago Number, February, 1944.

Bronchiectasis, 1943, by James R. Lisa and Milton B. Rosenblatt.

Handbook of First Aid and Bandaging, 1942, by Arthur D. Belilios, *et al.*

Medical Clinics of North America, Symposium on Chronic Diseases, March, 1944.

Year Book Neurology, Psychiatry and Endocrinology, 1943 .

Year Book of General Therapeutics, 1943.

BOOK REVIEW

M.D. Pp. 614, \$9.00, Oxford University Press.

PHYSIOLOGY OF THE NERVOUS SYSTEM. By John F. Fulton, M.A., D.Phil.,

This is the second edition of a book which is not only of great interest to all those who specialize in neuro-psychiatry or neurosurgery, but contains material which the busiest general practitioner or the most over-wrought surgeon or internist may read with pleasure and advantage. It is a compendium of the historical development of our knowledge of the nervous system, of the present knowledge, of the current research and of the clinical or practical applications of that research and knowledge. Lest this sound too forbidding, it should be emphasized that the historical notes are in fine print at the beginning of each chapter, as is the technical research, while at the end of each chapter is a two-page summary of the important points.

The first two hundred pages deal with basic physiology and only the specialized few will read any but the summaries. However, there follow invaluable descriptions that cannot be equalled by any book. Thus, the section on the autonomic nervous system is concise, lucid and brief. This is followed by a description of the hypothalamus which is more easily understood than any which this reviewer has read. This area of the brain has become of major interest in recent years and every physician should be familiar with its chief functions. Other chapters of great interest concern the pyramidal and extra-pyramidal systems, and the newer knowledge concerning them is revolutionary indeed.

This review is not written by an enthusiast nor is the book being recommended unduly. Dr. Fulton is a great scholar, a great researcher and a great writer, and he certainly needs no introduction to those who specialize in neurology, psychiatry and neurosurgery. To those others in the practice of medicine and surgery, this book is heartily recommended both for the reading recommended above and as a book of reference.

—S. E. T.

REMEDIAL INTRATHORACIC CONDITIONS IN CHILDHOOD

J. R. DAVIES, M.D.

Read before meeting of Vancouver Medical Association, April 4th, 1944.

I should first like to express my appreciation for this opportunity to address you. I trust that you will derive some small benefit from my remarks relating to this important group of conditions which are capable of being remedied.

The limited time at my disposal does not permit a complete history of each case presented and only a selected number of lantern slides can be shown.

Within the thoracic cage of the child one may encounter almost any pathological condition found in that of the adult. In addition, there are the congenital defects of the heart and lungs which are usually discovered in infancy or early childhood. Also, if one remembers that the respiratory tract of the child is more liable to infection, it should not be difficult to picture the important role which intrathoracic conditions occupy in pædiatric practice.

It is not my desire to burden you with a discussion of status thymicolymphaticus. However, I would ask that you bear with me while I present a case history dealing with the thymus as an organ capable in itself of producing symptoms.

CASE (Nov. 8, 1941)—Baby B., age 6 months, was well until 3 months of age, at which time he began to wheeze and cough.

Without benefit of X-ray investigation, the infant was treated for bronchitis for a period of 3 months, following which time I was consulted.

Examination revealed a healthy looking child with a brassy cough accompanied by both inspiratory and expiratory stridor. There were no other signs or symptoms.

Contrary to usual procedure, a provisional diagnosis of enlarged thymus was made and radiological investigation ordered at once.

X-ray (Nov. 9, 1941)—The thymus is markedly enlarged, particularly as to its right lobe which is lying high in the anterior mediastinum and practically occludes the whole of the upper portion.

The cough and stridor disappeared completely after the third treatment by X-rays and improved even after the first irradiation.

X-ray (Jan. 27, 1942)—The thymic enlargement which was present at the previous examination has in a very great part disappeared.

Although the thymus appears to have been the causal factor in producing the symptoms in this case, one should never be content with such a diagnosis until all other etiological possibilities have been thoroughly explored.

The enlarged thymus is *not* a common cause of such symptoms.

* * * *

One of the greatest advances ever recorded in the field of intrathoracic surgery was made on August 26, 1938. On this day, Dr. Robert E. Gross, surgeon at the Children's Hospital in Boston, performed the first successful ligation of the patent ductus arteriosus on the living subject.

Prior to that date, Dr. John Hubbard, a pædiatrician in Boston, noted that while some patients with a patent *ductus* lived a normal life without handicap, the majority died either from heart failure (43%) or from subacute bacterial endocarditis (30%). It was his observations that encouraged Dr. Gross to operate in order to reduce the mortality rate in this condition.

During the next five years Gross ligated or divided fifty cases with but three deaths. Seven of these cases had subacute bacterial endocarditis due to streptococcus viridans infection. In two cases he did not ligate the ductus because of the presence of some other lesion. Thus, he was correct in his diagnosis preoperatively in fifty out of fifty-two cases. The ages of his patients varied from 11 months to 36 years and females predominated in the ratio of two to one.

Other surgeons have had the same remarkable success as reported by Gross and a renewed interest in the diagnosis of congenital heart lesions has resulted.

Patent *ductus arteriosus* is one of the most frequent cardiac anomalies, being next in order to septal defects. When associated with other lesions the child usually dies in infancy. It is only when it occurs as a single lesion and presents signs and symptoms, that surgery is indicated.

Persistence of the *ductus* provides a shunt from the aorta into the pulmonary artery, owing to the relatively higher blood pressure in the aorta. The volume of blood diverted is 50% or more of the aortic flow. This extra quantity of blood in the pulmonary circulation increases the work of the heart, and may result in abnormal physical and X-ray findings, in the course of time.

Owing to the diversion of blood from the peripheral circulation, there is a disturbance of growth of the child, and signs of pulmonary congestion may occur.

This lesion is often discovered in infancy or early childhood in the course of a general examination before any signs or symptoms are present. The child may reach adult life without evidence of the lesion beyond the presence of the characteristic coarse rumbling "machinery-like" murmur which is usually continuous and heard with greatest intensity in the second or third left interspace. The murmur has a distinct systolic accentuation and may be transmitted in several directions, depending upon the degree of its loudness.

There is also a striking accentuation of the second pulmonic sound and an intense palpable thrill is present over the pulmonic area and accentuated during systole, in most cases.

As mentioned a moment ago, the murmur is often discovered in a general examination of an infant, at which time signs and symptoms referable to the patent *ductus* are usually absent. However, as the child grows older and exercise increases, there may be slight dyspnoea, increased heart rate, or a pounding cardiac beat. Cyanosis is conspicuous by its absence in uncomplicated cases and is usually present only if a terminal stage is reached.

In patent *ductus* of any consequence the heart itself is hyperactive while the pulse is apt to be of the collapsing or Corrigan type. The systolic blood pressure is normal while a low diastolic pressure is likely to be present, owing to diminished peripheral resistance with a resultant high pulse pressure. Of course, this finding will vary, depending upon the severity of the condition.

Radiological investigation cannot establish the diagnosis but can suggest the presence of a patent *ductus*. Actually, large hearts are rare in this condition and there is either no enlargement or only a slight to moderate increase and this is limited mainly to the left side of the heart. The greatest enlargement is said to be found in the presence of subacute bacterial endocarditis or endarteritis.

The electrocardiogram has its chief value in ruling out associated defects.

Selection of cases suitable for operation is most important and must conform to the following standard:—

1. The diagnosis must be correct.
2. One or more of the following must be present—
 - (a) Retarded physical development due to ductus defect.
 - (b) Low diastolic pressure which falls with exercise.
 - (c) Signs or symptoms of beginning cardiac failure or embarrassment.
 - (d) Pulmonary congestion or considerable enlargement of the heart (X-ray).
 - (e) Early subacute bacterial endocarditis.

The preferable age range for operation is from 5 years, which will preclude all possibility of natural closure, up to 15 years, *i.e.*, before much cardiac damage has been done.

The results following successful operation are dramatic. They are as follows:—

- (1) In most cases the thrill ceases and the murmur completely disappears.
- (2) The activity of the heart is noticeably diminished, as its work is lessened.

(3) Children with retarded physical development show weight gain and improvement in general condition, owing to better peripheral circulation.

(4) Several cures have been reported where subacute streptococcus viridans end arteritis was present. Example—One girl, age 9 years, weighing only 56 pounds, who had repeated positive blood cultures for streptococcus viridans, made a splendid recovery. Twenty months following operation, she had gained 28 pounds, was attending school, and taking part in light athletic games.

The following case history illustrates how the patent ductus is often discovered, namely, in routine examination.

CASE (Oct. 5, 1943)—C. S., age 2 years, was brought to the office with a history of frequent colds.

The child was small for her age and weighed but 22 pounds. There was a loud machinery-like continuous murmur heard best in the second left interspace. It was well transmitted to the back, especially on the left side. A very distinct thrill was felt over the pulmonic area. There was no cyanosis on crying and the mother stated that the colour had always been good. The systolic blood pressure was 95 and the diastolic 45.

X-ray—Suggested ductus arteriosus.

The parents were informed of the cardiac anomaly present and told to return with the child at least once a year in order to safeguard against cardiac or other signs which might otherwise progress beyond the stage at which operation would be of benefit.

* * * *

Turning now to a discussion of lesions of the lungs and adjacent structures, one is confronted with several conditions which are capable of being remedied. They are, of course, not limited to childhood but are frequently encountered in this age period.

Pertussis, for example, is a disease which at times leaves the patient with a very distressing cough which may last for weeks to months after the expected time of disappearance. Cough mixtures, as the sole remedy in such cases, are apt to be disappointing. The following case histories are good examples of the results achieved by a form of treatment which should be more widely recognized and utilized.

CASES: B. A. R. and B. J. R. are sisters whose ages were 7 and 9 years respectively. Both developed pertussis in June, 1939. In spite of the usual measures employed, they were still coughing five months later, at which time I was consulted. Each child presented a similar clinical and radiological picture.

X-ray (Nov. 10, 1939)—There are numerous glands in the mediastinum about the bifurcation of the trachea. Otherwise the findings are negative.

Each child received but two treatments of X-ray therapy one week apart and the cough disappeared promptly.

Bearing in mind that in pertussis there is infiltration into the walls of the bronchi and bronchioles mainly by lymphocytes and that the lymph nodes in the neighborhood enlarge, it should not be difficult to explain the results of such therapy.

Thus, roentgen rays produce a ready response in lymphoid tissue and therefore act upon the swollen lymphoid structure of the hilum, including the pulmonary and tracheo-pulmonary groups of glands, causing reduction in size. The relief is chiefly, if not entirely, of a mechanical nature and may be spectacular. I have in mind an infant of one year of age who had a severe attack of pertussis in August, 1943, and the mother consulted me in November because of the persisting cough. After the first treatment the cough all but disappeared and was entirely gone after the second one.

Such spectacular results may not be the rule but improvement is usually shown by reduction in the frequency and severity of the paroxysms and a final cessation of the cough. X-ray therapy should be given a trial where severe paroxysms persist beyond the usual duration, even in the absence of demonstrable glands.

Beyond doubt, the best treatment is "preventive" by the administration of prophylactic pertussis serum at six months of age. This usually prevents or greatly modifies the disease.

Less there be any misunderstanding, it must be stated that in the "early" stage of pertussis X-ray therapy has not produced results which would entitle it to be placed in our list of remedies. The response is mainly in the second half of the disease, at which time glandular enlargement is most likely to be present.

* * * *

In 1937 a child was examined at the Vancouver Chest Clinic and the pulmonary findings are of considerable interest. The case history is included here because of the diagnostic difficulty encountered.

CASE: Y. A., male Japanese, age 15 years, gave a history of frequent asthmatic attacks for the past eight years. Except for cough during an attack there were no symptoms.

X-ray (1937)—There are increased markings with some fine infiltration especially in the third left interspace. (Diagnosis—Suspect pulmonary tuberculosis.)

X-ray (May 5, 1938—7 months later)—There is fine infiltration over the upper two-thirds of the left and upper third of the right chest. This infiltration is more marked than in the previous plate. (Diagnosis—Questionable, but the infiltration is *not* typical of pulmonary tuberculosis.)

This case was followed for two and one-half years before the diagnosis was finally established. Sputum examination had been consistently negative for tubercle bacilli and the child remained well. Then culture of sputum on Sabaroud's media showed a growth of fungi resembling "Monilia Albicans" and repeated laboratory tests produced a similar growth.

X-ray (at time of diagnosis—2½ years)—There is fine infiltration throughout both lungs from apex to base.

Four years after the child came under observation the X-ray findings were unchanged. The sedimentation rate and blood count was normal at all times. Unfortunately, from the medical standpoint, this child was moved inland with his parents and further study interrupted.

The diagnosis of fungus infection, in its early stage particularly, usually presents considerable difficulty, as it did in this case. For a time it is mistaken for pulmonary tuberculosis and may even occur in combination with it. However, fungus infection should always be suspected when pulmonary lesions do not easily fit into one of the accepted diagnostic categories.

The treatment for the Monilia Albicans type of infection has been potassium iodide and cures have been reported. Quinine sulphate has more recently been suggested as a curativ agent.

* * * *

One should always be on the alert for pulmonary complications which may follow tonsilectomy. The following case illustrates one such type of lesion.

CASE: E. S., female, age 12 years, developed laboured and rapid breathing on April 15th, which was the day following operation. The temperature rose to 102 degrees, and marked dyspnoea, accompanied by a feeling of suffocation, developed.

Physical examination elicited dullness at the right base and absence of breath sounds over that area.

X-ray (April 16th)—The right diaphragm is slightly higher than usual and the heart is displaced about an inch to the right. The rib spacing suggests some retraction. There is also some increased density shown in relation to the pulmonary tissue at the right base suggesting "atelectasis."

Bronchoscopic examination was immediately performed under ethyl chloride and ether anæsthesia. Following the aspiration of mucus, which acted as a bronchial plug, there was almost immediate improvement. Sulfathiazole was then given in adequate dosage and the temperature became normal on the fourth day following operation (bronchoscopy). Fluoroscopic examination n April 20th showed definite increase in

hilar and peribronchial markings, particularly towards the right base. There was no evidence of atelectasis as the diaphragm was well outlined.

The child was discharged as cured on the ninth day and it is fair to state that it was probably on account of the early treatment instituted.

One should not wait too long for a possible natural cure by expulsion of the plug of mucus. Although the secretions of post-operative pulmonary atelectasis are not primarily suppurative, nevertheless suppuration usually does occur and within a week or ten days unless the mucus plug is removed or expelled. Failure of removal by coughing or bronchoscopy results in pulmonary abscess due to a breaking down of the walls of the passages.

Although post-operative atelectasis is more common in adults because the operative field is often in the upper abdomen, it may occur in children following appendectomy or other surgical conditions in the abdomen. What was formerly called post-operative pneumonia is now generally recognized as atelectasis.

* * * *

For the next case I am indebted to Dr. R. N. Anderson of Ladner, who kindly allowed me to follow the progress of the case on the ward.

CASE: G. G., age 18 months, was admitted to hospital on September 29, 1943. Six weeks previously the infant had pneumonia and was treated with sulfathiazole. Although the child seemed well within a week, the temperature never registered below 100 degrees before admission.

Two weeks after the pneumonia had subsided, slight cough, fever and listlessness returned and a further course of sulfa drug given. In a short time he was well with the exception of the low grade temperature. Ten days before admission the same symptoms reappeared but in a more pronounced form. The child was then pale, respirations were rapid and laboured and he perspired at night. The temperature now ranged from 100 to 103 degrees.

On admission on Sept. 29th he was fretful and had a frequent non-productive cough. Percussion note was impaired over the left mid lung posteriorly and the breath sounds were altered.

X-ray (Sept. 29th)—There is considerable infiltration shown at the left medial base, probably atelectatic in character, as there appears to be some constriction of the ribs on this side. On a level with the fifth intercostal space posteriorly there is a shadow suggesting a small amount of air with a fluid level as if in an abscess cavity. (Lateral views suggested likewise.)

On Sept. 30th bronchoscopy without anæsthesia was performed and the left bronchus explored. There was a large quantity of muco-purulent material in the trachea and a great deal of congestion in the bronchial mucosa. A short distance below the carina the bronchus was almost completely obstructed by what appeared to be a generalized swelling of the bronchial wall. By suction tube a small quantity of muco-purulent material was obtained.

X-ray (Oct. 7th)—There is a radiopacity occupying the lower two-thirds of the left chest with an area of lesser density at the level of the anterior end of the third interspace 12 mm. in diameter. There is no fluid level in the apparent cavity.

X-ray (Oct. 15th)—The heart is still displaced somewhat to the left but there is a definite clearing of the shadow in the peripheral part of the left chest and no evidence of cavitation in A.P. or lateral plates.

Three bronchoscopies in all were done and the third on Oct. 19th showed very little material in the left bronchus but there was still some edema of the bronchial mucosa. Postural drainage followed each bronchoscopy.

X-ray (Oct. 26th)—The heart is in normal position and the left chest is clear.

The temperature and respirations reached normal on the 15th day after admission. There was an appreciable gain in weight and all symptoms disappeared. The tuberculin test was negative. No further treatment was indicated at that time. The child is still

well six months later. This case was one of acute lung abscess following atelectasis during pneumonia from a mucous plug. Not all suppurative pulmonary lesions have such a fortunate ending. The next case will illustrate a more advanced type of lesion.

When one realizes that bronchiectasis has its onset most frequently during the first ten years of life then its importance as a pædiatric problem becomes evident. Although "prevention" is the ideal form of treatment, this is not always possible. However, careful management of the common diseases that affect the respiratory tract, such as measles, pertussis, and especially streptococcal and influenzal pneumonia, is an important aid in prevention. The prompt removal of foreign bodies and adequate early treatment of lung abscess, such as was present in the previous case, are essential if bronchiectasis is to be prevented.

The following case, a patient of Dr. W. Bagnall, was admitted to the pædiatric ward on November 7, 1943, with a diagnosis of bronchiectasis of the left lower lobe.

CASE: B. L., female, age 8 years, had a history of productive cough of two years' duration. If the child was turned head down it was not unusual to collect approximately two ounces of purulent material.

For the past several years she had suffered from many respiratory infections. Two years ago she had pneumonia and last year developed measles complicated by pneumonia.

On physical examination she appeared to be a fairly healthy looking child. Breath sounds were absent over the left base posteriorly and a few moist rales were present (according to interne's notes). There was no clubbing of the fingers and the temperature ranged from 99 to 101.

X-ray (Nov. 8, 1943)—Following lipiodol injection the appearance of the right base is satisfactory, but the left base on a level with the bronchi appears dilated and filling of the alveolar tree is not as satisfactory as on the right side. The filling of the upper lobe is incomplete.

Operation (Nov. 15th)—Postural drainage was done and then left lower lobe lobectomy under cyclopropane anæsthesia. Following operation, the child was placed in an oxygen tent and a catheter from the wound attached to the drainage bottle.

X-ray (Nov. 16th)—The upper lobe has expanded very markedly so that it now occupies most of the left chest.

Radiological examination by Dr. Harrison on December 18th showed the chest to be in a satisfactory condition. As late as March 18th, 1944, her condition is still good and she looks fine.

While some cases of bronchiectasis clear without treatment it is seldom that one sees such a result in infants and young children. If this does occur it usually takes months on years to do so.

When one finds an atelectatic shadow with the heart displaced towards the affected side the condition should be considered as a potential bronchiectasis and a real effort made immediately to clear the bronchus which serves that portion of the lung.

Medical treatment has no place in well established bronchiectasis. It may be of value in the early stage and consists of frequent changes in position. After disappearance of the acute pulmonary symptoms and following the onset of the moist cough one may find postural drainage of benefit. If repeated radiological examination shows little or no change in the size and density of the shadow then bronchoscopic aspiration may bring about immediate results. It is better to perform the bronchoscopy within days to a week or so following non-clearance of the shadow. Daily postural drainage is necessary following aspiration to prevent recurring collapse. A case should not be considered as cured until X-ray and physical findings have been negative for some period of time (due to danger of recurring collapse).

Surgical treatment in the form of lobectomy is the only known cure in well established cases. Lobectomy in the hands of experienced thoracic surgeons is now a fairly safe procedure. One surgeon reports a mortality rate as low as 3.3% in a series of 122 cases.

Thus, all children and young adults with established bronchiectasis should be carefully studied with lobectomy in mind to prevent, where possible, a prolonged miserable life both physical and psychological.

* * * *

Since the advent of the sulfonamides, one rarely sees empyema where the pneumonia has been treated early with adequate dosage.

Once the condition has developed it becomes necessary to formulate a plan of treatment most likely to give the best results. There is no standard treatment for acute empyema and therefore each case must be considered in the light of past experience. In any event, it becomes necessary to perform a diagnostic aspiration, at which time some of the fluid is usually removed as a treatment measure. One usually repeats these aspirations at intervals of two to three days or more, depending upon the temperature, toxicity, radiological findings and general well being of the patient. Cure may result from this form of treatment alone.

But, if the course of the empyema is unduly prolonged or the results of aspiration likely to be uncertain, intercostal closed drainage has been found to be satisfactory on our wards as a further step in treatment, provided the pleural fluid is not too thick. Many of our cases have been cured by this method without resort to open drainage, such as rib resection.

Intercostal drainage has its greatest use where the accumulation of fluid is so large and forms so rapidly that frequent tapping fails to give adequate relief of mechanical embarrassment. It is important to remember that in children, where repeated needling of the chest causes much fear and anxiety, closed drainage eliminates the necessity of frequent aspirations.

Following aspiration, primary open resection, such as rib resection, is the form of treatment most often employed. The reason for this and the good results obtained are due to the fact that most empyemas are of pneumococcal origin. When the pneumococcus is responsible for the empyema the underlying pneumonia has usually subsided and the vital capacity of the lungs is such that open operation as a primary measure is a safe procedure. However, in streptococcal and staphylococcal cases the empyema usually appears during the active stage of the pneumonia and open operation at this time only invited disaster. Nor is primary open operation recommended in the first two years of life and certainly not in the first year. Closed drainage is the procedure of choice at this age.

CASE: P. J., age 14 months, was seen at home on January 18, 1944. She had a temperature of 103 and impaired percussion note over the greater part of the right chest. There were crepitations in the right base and the child was very toxic. I sent her to hospital and ordered an X-ray investigation that day.

X-ray (Jan. 18th)—There is some pleural thickening with a slight amount of fluid shown about the lung in the right axilla and in the interlobar space between the upper and middle lobes on the right side. There is no marked evidence of any pulmonary infiltration.

One wishes to emphasize that in this case radiological examination suggested the onset of pneumonia and fluid formation in the pleura at one and the same time. The next day the temperature rose to 105 degrees and remained high for several days. Respirations were now 50 per minute and the child was receiving sulfadiazine. Next day the picture was complete with the typical picture of pneumonia accompanied by hydrothorax, thus suggesting either staphylococcal or streptococcal type of pneumonia.

X-ray (Jan. 21st)—The right thorax appears to be fairly well filled with fluid and the heart is shown displaced about an inch to the left.

Next day a diagnostic thoracentesis was done and an attempt made to aspirate as much fluid as possible. After removing but 90 cc. the needle apparently plugged. *Staphylococcus aureus* was found in culture from the pleural fluid.

Operation (Jan. 26th)—Under gas anæsthesia closed drainage was performed. The child was very toxic and condition was only fair.

Within three days the temperature began to subside and reached normal in five days. Sulfadiazine was continued with proper attention given to the white blood count and blood concentration of the drug. It was necessary to keep the child in an oxygen tent for several days.

X-ray (Jan. 28th)—There is still considerable thickening shown in the right thorax and the drainage tube is in place. There is no evidence of any collection of fluid.

The drainage tube fell out on January 30th but this resulted in no ill effect. Keeping the tube in place and avoiding leaks about the tubing where it enters the chest is, of course, one of the difficulties encountered when closed drainage is used.

Following a blood transfusion for secondary anæmia, the child was discharged Feb. 21st.

X-ray (Feb. 29th)—There is light pleural thickening but expansion and movement of the ribs is quite satisfactory.

* * * *

Aspiration of the pleural cavity, although a simple procedure, may result in a pneumothorax by puncturing the lung itself. In the presence of purulent fluid in the pleural space a "tension pyopneumothorax" may develop. Such a condition was found in the last case to be presented.

CASE: W. G., age 3 years, was admitted under the pædiatric staff on Dec. 18, 1943, with a diagnosis of pneumonia with effusion limited to the right chest. He was acutely ill with a temperature of 104 and had rapid laboured respirations.

X-ray (Dec. 18th)—There is marked opacity shown at the right axillary base and extending upwards as high as the second rib in the axillary line. There appears to be some pleural thickening above this line which suggests that the greater part of the opacity is due to pleural thickening and fluid, although considerable pulmonary infiltration is present. *Diagnosis*—"Pleural effusion and pneumonia."

On Dec. 25th, 1000 cc. of purulent fluid was aspirated and staphylococcus aureus hæmolyticus was cultured from it.

X-ray (Dec. 27th)—There is almost complete pneumothorax on the right side and the heart is displaced slightly to the left.

X-ray (Dec. 29th)—Marked pneumothorax is still present on the right side and the air extends to about $\frac{3}{4}$ inch beyond the left side of the vertebral column.

X-ray (Jan. 6th)—The fluid is shown to be about two ribs higher than in a previous film. There is considerably less air in the right thorax and its extent towards the left also appears to be slightly diminished.

Operation (Jan. 7th)—Closed drainage was performed under gas anæsthesia.

Later in the day on which closed drainage was done, another film was taken.

X-ray (Jan. 7th)—The pneumothorax on the right side has now been resolved. The heart appears to be in normal position. There is some pleural thickening shown along the right axillary line and the drainage catheter is in position.

The child did well and was discharged six weeks after admission. He returned for a final film in March.

X-ray (March 15th)—There is very slight infiltration shown throughout the right pulmonary tissue but otherwise the lesion is practically resolved.

Although "open" drainage had been suggested as a "primary" measure in this case, such a procedure is contra-indicated as it would probably result in considerable dyspnæa and perhaps death of the patient.

"Closed" drainage is the method of choice, to be followed later by "open" drainage, if necessary.

Much credit must be given to Dr. Elliott Harrison, who was responsible for all operative procedures mentioned in this paper.

In conclusion, I wish to stress a few points.

1. The thymus, as an organ, is capable in itself of producing symptoms, although it is not a common cause of such symptoms.
2. Ligation or surgical division of the patent ductus arteriosus produces splendid results in selected cases and has its greatest use in childhood.
3. In pertussis, where distressing cough persists beyond the expected time, relief may be obtained by roentgen-ray therapy.
4. Fungus infection of the lungs presents difficulty in diagnosis and in the early stage may be confused with pulmonary tuberculosis. Repeated X-ray investigation and sputa examination are necessary measures in order to reach a diagnosis.
5. Atelectasis demands prompt surgical relief where bronchial obstruction is due to mucus plugs following tonsillectomy, or in the course of pneumonia, to prevent lung abscess and possibly bronchiectasis.
6. Lobectomy is a fairly safe curative measure in well developed bronchiectasis, provided the lesion is limited to the lobe of one lung.
Emphasis must be placed on the early age at which bronchiectasis develops.
7. Acute empyema is seldom a surgical emergency. However, careful consideration must be given to the method of treatment to be adopted in each case. Thus, where streptococcus or staphylococcus empyema is present in the course of pneumonia, intercostal closed drainage is the method of choice and has given excellent results in cases on our pædiatric wards. (Vancouver General Hospital.)

The purpose of this paper, in the main, is to suggest early and adequate radiological investigation in every case which presents signs or symptoms referable to the chest. With results that can now be attained by roentgen-ray therapy and surgery, no lesion amenable to treatment should be allowed to reach a stage where the child may be incapacitated for life.

AIR RAID PRECAUTIONS HEADQUARTERS

CITY HALL

Vancouver, B. C.,

April 14, 1944.

Dr. A. J. MacLachlan,
Registrar,
College of Physicians & Surgeons of B. C.,
925 W. Georgia St.,
Vancouver, B. C.

Dear Doctor MacLachlan:

We are desirous that members of the Medical profession who are holders of special permits for motor vehicles under the Lighting and Blackout Regulations renew their permits for 1944-45, and to effect this, it will be necessary for them to send in their permits, together with their 1944 licence number of their car, to the Chief Warden's Office, Vancouver Civil Defence, City Hall, Vancouver, B. C.

Also, that present holders of the Special Permits, that have resigned from Civil Defence and in consequence have no need for such permit, be asked to remove the sticker from their windshield and return same along with their permit to the same address. If the sticker is destroyed in removing, please advise on returning permit.

Yours very truly,

F. O. FISH,

Director, Vancouver Civil Defence.

Vancouver General Hospital

PRELIMINARY REPORT ON THE USE OF THIOURACIL IN THE TREATMENT OF HYPERTHYROIDISM

DR. G. F. STRONG and DR. W. N. BELL

Department of Medicine, The Vancouver General Hospital.

At the Osler Dinner in March, 1944, Col. Wallace Wilson prophesied that the therapy of hyperthyroidism might soon be within the realm of internal medicine. Possibly the increasing use of thiouracil may be a step in that direction. The object of presenting at this time a premature report of our experiences with the use of thiouracil is not to condemn or to uphold it but merely to draw it to attention as a possible beneficial agent in the treatment of hyperthyroidism.

A brief review of the literature on thiouracil will be of value. Two series of chemical compounds have been found to possess the unique property of inhibiting the endocrine function of the thyroid gland. The administration of these agents to experimental animals is followed, after a short latent period, by a lowering of the basal oxygen consumption, a decrease in the rate of growth and development, and a diminished food intake—changes which are consistent with a state of hypothyroidism. In certain species of animals these changes are accompanied by a hyperplasia of the thyroid gland which is apparently compensatory in nature and mediated by the anterior lobe of the pituitary. The first series were derivatives of thiourea which exhibited some activity but varied widely in toxicity, thiourea itself being the least toxic of all. 2-thiouracil was the most highly active compound tested and it was found to have a low toxic effect. The second series of active compounds included a number of aniline derivatives, such as para-aminobenzoic acid and related compounds, and all of the commonly used sulfonamides. This second series was found to be considerably less active than the derivatives of thiourea. It was found that the changes induced in the experimental animals can be prevented by the administration of desiccated thyroid or thyroxin or by hypophysectomy but not by the administration of iodine.

Thiouracil has been found to be rapidly absorbed and rapidly excreted. On a dosage of 0.2 gm. every four hours, it requires about twenty-four hours to reach a more or less constant rate of excretion in the urine and a constant blood level. On this dosage the urine excretion is about 300 milligrams per day, whereas the blood level is about 3 mgm. per cent. Studies are being done to determine the distribution of the drug in the tissues of human beings.

The dosage recommended is 0.2 gm. every four hours with reduction as determined by clinical improvement. When the basal metabolic rate is normal, 0.2 gm. once or twice daily has been found usually to be sufficient for maintenance doses. It must be administered continuously over a period of months, as Astwood has found a recurrence of the disease in a patient although the latter had received thiouracil for about two months before it was discontinued. Studies have suggested that the primary action of these compounds is an inhibition of the production of thyroid hormone, but the exact mechanism had not been determined.

There appears to be a variable latent period following the initiation of treatment before the metabolic rate begins to fall, and a similar though somewhat shorter period before clinical improvement is subjectively and objectively apparent. "If the concept that these drugs prevent the synthesis of thyroid hormone is correct, one might expect that the rate of metabolism would remain nearly as constant as long as the store of thyroid hormone in the gland was adequate to supply the organism. When this store nears exhaustion, the decreased rate of thyroid hormone synthesis becomes apparent in

the fall of the B.M.R." Astwood finds support for this statement in the failure of four persons with normal thyroid glands to show a decrease in metabolism when the drug was administered for periods of two to four weeks, while his cases of hyperthyroidism responded within ten to fourteen days. It is known that a hyperplastic gland contains relatively little thyroid hormone and thus its store would become more quickly diminished than that of a normal gland.

It has been shown that thiouracil does not lower the basal metabolic rate of untreated myxedematous patients, nor does it inhibit the response of the basal metabolic rate to desiccated thyroid.

Complications occurring during the use of thiouracil do not appear to be very common. Astwood reported one case of agranulocytosis, but this occurred with a dosage of 2 gm. of thiouracil daily, a dosage that is now believed to be unnecessarily high. Williams and Bissell report two cases which developed slight pitting edema with elevation of the serum chloride, but these changes disappeared without discontinuation of the drug and without any alteration in the urine or in kidney function tests. There were no ill effects noted when the drug was used in the case of a pregnant woman. In another series, three patients developed pyrexia or rash, either alone or together, but these disappeared without having to discontinue the drug.

We wish to report three patients, each representing different aspects of hyperthyroidism:

CASE I.—A 33-year-old woman, who complained of loss of twenty-two pounds, occasional palpitations and a moderate intolerance to heat since July, 1943, and excessive appetite, chronic fatigue, nervousness and excessive perspiration since September, 1943. The basal metabolic rate in September was +18 and in February, 1944, was "over 80%." Examination revealed nervousness, loss of weight, a warm moist skin, fine tremor of the fingers and moderate exophthalmos with slight lid-lag and poor convergence of the eyes. The thyroid was diffusely firm and enlarged, particularly the right lobe. The heart was slightly enlarged to the left and a soft systolic murmur could be heard over the whole precordium, especially at the apex. Blood pressure was 130/70, the pulse 120 and regular.

On March 7, the basal metabolic rate was +69 and the blood cholesterol 95. Her weight was 118 lbs., and the white blood count 9,000. She was allowed out of bed with no sedation except at bedtime, and she was fed on a high caloric, high vitamin diet. She was started on thiouracil, 0.1 gm. four times a day. On March 9, the dosage of thiouracil was doubled to 0.8 grams daily. On March 14, the basal metabolic rate was +40, and the blood cholesterol 116. She had gained 2 lbs., and she felt generally greatly improved. The tremor in her hands had decreased and her nervousness showed marked improvement, her pulse having decreased to 80. There was no apparent change in the size of the thyroid although she said that a feeling of "tightness" in the neck, which she had noticed for two days before coming into hospital, had disappeared. On March 20, the basal metabolic rate was +25, and the blood cholesterol 150. Her weight was up 3 lbs., and her white blood count was 6,500. She mentioned that her eyes did not tire so easily when reading. Her nervousness and the tremor of the hands were still further improved but there was still no change in the size of the thyroid.

The dosage employed in this case, namely 0.8 gm., is slightly less than the recommended dose of 1.0 gm. daily, but it is the heaviest used in our three patients. It is naturally too early to draw any conclusions from this case but the progressively decreasing basal metabolic rate, increasing blood cholesterol, and gain in weight are encouraging. Points of interest are that no palpable increase in the size of the thyroid gland or development of agranulocytosis has occurred up to the present. The general improvement, subjectively as well as objectively, has given the patient a good deal of satisfaction, especially since she has discovered a similar thyrotoxic patient in the same ward who is on the usual strict bed rest with Lugol's solution. Our plan with this patient is to reduce her basal metabolic rate to normal and then to put her on maintenance dose of 0.2 gm. of thiouracil once or twice daily.

CASE II.—A 46-year-old woman, admitted February 1, 1944, complained of productive cough, chills, fever, anorexia and dyspnoea for ten days. She gave no history of hyperthyroidism beyond the loss of twelve pounds in the previous six months, despite a fairly good appetite.

On examination she was a well-built woman with a mildly antagonistic manner. Her skin was warm and dry. Her eyes were moderately exophthalmic, but there was no lid-lag and only slight difficulty in convergence. The thyroid was diffusely enlarged, especially the right lobes. The blood pressure was 125/78, the pulse 100 and regular. The heart was not enlarged clinically nor were there any murmurs to be heard. There were numerous rhonchi and a few rales throughout the chest. An X-ray examination of the lungs revealed no tuberculosis, but increased hilar and peribronchial markings. There was a slight fine tremor of the hands. Sulfadiazine cured the bronchitis.

On March 8, she was started on thiouracil, 0.1 grams six times daily. Her basal metabolic rate at this time was +39. She had been on Lugol's solution since February 14, first Mx daily, then Mxxx daily, during which time her basal metabolic rate had dropped from +42 to +39. She was allowed up to the bathroom, was given no sedation except at bedtime and was on an ordinary diet. Within four days she began to feel better, her disposition improved and she was eating more. In a week her basal metabolic rate was +37 but she had gained 4 lbs., which was more than she had gained taking Lugol's solution for three weeks. The blood cholesterol had diminished from 220 to 210, and the white blood count remained constant.

The interesting points in this case are, first, the relative lack of response both to Lugol's solution and thiouracil; and second, it is difficult to account for the high blood cholesterol. Clinically, she represented a mild Graves' disease with the toxicity affecting particularly the nervous system although she had some paroxysmal nocturnal dyspnoea and her electrocardiogram showed some myocardial involvement. The gain in weight is an encouraging sign. No signs of toxicity to the drug have appeared up to the present time and she is doing a little work about the house. She has had no sense of pressure in the neck and has had no trouble with her eyes. We intend to maintain the same dosage of thiouracil with weekly estimations of the basal metabolic rate, blood cholesterol and white blood count.

CASE III.—A 62-year-old woman, who was operated on for Graves' disease in 1932, had carried on a normal life with no thyrotoxic symptoms until December, 1943, when she began to have palpitation, dyspnoea on moderate exertion, gradual loss of weight, chronic fatigue and an increasing intolerance to heat. These symptoms have been increasing up to the present time and lately her appetite has been poor. She has had slight edema of the ankles at times. She had Lugol's solution for two weeks before starting thiouracil, and the basal metabolic rate dropped from +58 to +42.

On examination she was an elderly woman, well-nourished and slightly nervous. Her eyes were moderately exophthalmic with slight lid-lag and difficulty in convergence. Her thyroid was palpable and the operative scar was well-healed. Her heart was irregular at a rate of 76 to 80, the blood pressure being 160/90. The heart is enlarged to the left to the anterior axillary line. The sounds were of poor quality and no murmurs could be heard distinctly. The liver was just palpable but there was no ankle edema. There was a slight fine tremor of the hands.

On March 9, she was started on thiouracil, 0.1 gm. four times daily, and remained out of hospital. At that time, the basal metabolic rate was +42 and her blood cholesterol 190, and she weighed 127 lbs. She began to take digitalis on February 14 as her electrocardiogram at that time showed auricular fibrillation with flattening of T 1, 2 and 3, and she continued the digitalis while receiving thiouracil. On March 20, the basal metabolic rate had dropped to +28, and the blood cholesterol had risen to 200. The white blood count had remained constant. She had gained 3 lbs. and for the first time was doing a little work about the house and was sleeping better. In the last few days she had a slight pressure sensation in the neck and reading has tired her eyes. The

thyroid seems to be slightly more palpable, her heart rate is now regular and her dyspnoea has decreased.

We intend to maintain her on the same dosage as an ambulatory patient, and, should the basal metabolic rate become normal, we may keep her on a maintenance dose, at the same time giving her desiccated thyroid, as advised by Williams and Bissell, with a view to possible improvement of the exophthalmos.

This patient seems to be responding well to the drug but she presents two interesting concurrences, namely a slight enlargement of the thyroid and possibly a slight increase of the exophthalmos. The question of the heart becoming regular five days after beginning thiouracil probably is coincidental.

In summary, after two to three weeks' treatment, all of our three patients have gained weight, feel and look improved, and, in two cases, the fall in the basal metabolic rate has been encouraging. No toxic reactions have been noted although the dosage has been less than that recommended. Our ambulatory patient is of interest since it suggests a possibility of preparing a patient for operation without disturbing her normal life to any marked extent. So far no conclusions can be safely drawn about the drug but we feel that it is giving satisfactory results up to the present time.

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SULFONAMIDES IN SKIN DISEASE: A WARNING

D. E. H. CLEVELAND, M.D.

There is a widespread and remarkable tendency to resort to the use of drugs of the sulfonamide series in the treatment of skin affections. This is reflected in a number of abstracts in the 1943 *Year Book of Dermatology and Syphilology*¹. Also reflected here is a fact of much greater significance, which the medical profession in general appears to ignore or minimize; that is the frequency with which these drugs, whether used topically or orally, produce serious cutaneous and other reactions. These reactions are often of greater moment and more disabling than the condition for which the remedy was employed.

In the 1943 *Year Book* there are abstracted 15 papers which deal exclusively with the use of sulfonamides in treating various dermatoses. Of these 11 contain cautionary or critical comments directed against the indiscriminate use of these drugs, and 7 deal exclusively with the undesirable reactions which they frequently evoke. In addition to these abstracts there are interspersed 5 editorial comments, to be summarized later, strongly condemning the widespread indiscriminate use of sulfonamides in cutaneous disease.

H. N. Cole², while admitting that sulfonamides have given brilliant results in certain superficial pyogenic infections, questions the advisability of their use unless other well-tried medications have failed, and states that since their local use in high concentration is more liable to sensitize the individual they should not be used over a period of more than 5 days.

Arne Ingels³ in a series of 300 cases primarily due to or secondarily infected with pyogenic organisms, treated with topical applications of sulfathiazole or sulfadiazine, reported sensitivity reactions in 3.3% of his cases.

Livingood and Pillsbury⁴ in reporting 12 cases of eczematous pyoderma treated with sulfathiazole considered that chronically eczematized conditions were those most apt to show sensitization reactions. These occurred only in those cases where the drug was used for 5 days or more. They state emphatically that sulfathiazole ointment should

not be used to treat eczematous lesions with secondary pyogenic infection, or chronic impetiginous dermatitis which has become eczematous. They also point out that since when improvement occurs in pyogenic infections it does so early there is no necessity for its prolonged application.

Costello, Rubinowitz and Landy⁵ state that toxic reactions to sulfathiazole are relatively frequent. The most common are fever, dermatitis and bilateral conjunctivitis. The most common combination is fever and dermatitis. Twenty-one out of a group of 196 dermatological patients treated with sulfathiazole developed skin eruptions of various types. They considered that in these patients there appeared to be little relationship between the duration of sulfonamide therapy, total quantity of drug given and the occurrence of toxic reactions.

R. G. Park⁶ considered that the fact that he saw 12 cases in one hospital in three months suggested that hypersensitivity to local applications of sulfathiazole was not uncommon.

While the dermatitis resulting from sulfonamide sensitization is usually an explosive "id"-like generalization, Shaffer, Lentz and McGuire⁷ observed in some cases a localized dermatitis, appearing as an exacerbation of the eruption for which the patient was being treated.

Robert⁸ observed similar localized sensitization phenomena as reported by the last observers, and stated further that in the deeper staphylococcal forms such as sycosis vulgaris, sweat-gland abscesses and furunculosis, action of the sulfonamides is unretain, while in the superficial forms it is not superior to the time-proven remedies, such as white precipitate ointment, etc.

In their comments made in connection with the 15 abstracts, the editors (Sulzberger and Baer of the New York Post-Graduate Medical School and Hospital respectively) state at the outset that they believe sulfonamides "should not be used in the routine treatment of such non-dangerous, self-limited superficial infections as impetigo, folliculitis, ordinary boils, etc." They seriously question in what respects a 5% sulfathiazole cream (while admitting that it will cure impetigo) is superior or inferior to the classic older measures. They answer this question in part by stating that "because of the dangers of sensitization and serious reactions in a certain percentage of patients, external therapy with sulfonamides should in the editors' opinion be restricted to those dermatoses which are severe, recalcitrant and not responsive to older orthodox methods."

The combined reactions of fever and generalized dermatitis which not rarely result from unjustifiable or improper use of sulfonamides are serious from an economic point of view. They often result in confining a patient to bed for several weeks, whereas the cutaneous disease which they were supposed to cure was not in any significant degree disabling.

The sensitization resulting from the topical use of sulfonamides may be much more serious for another reason. Several of the authors quoted, and the editors also, draw attention to this. The sensitization produced in this manner may persist for a long time. No author has been consulted yet who is willing to set a limit to this time; some have expressed an opinion that it may be permanent. Not only does this preclude the subsequent external use of the drug but later oral administration also may evoke cutaneous or other and more serious reactions. As Cole² says: "Such a reaction may preclude use of the drug later as a life-saving measure in pneumonia or bacteriæmia." The editors remark upon the "powerful combined or synergistic effects of local application followed by oral administration." Cohen, Thomas and Kalisch⁹ reported two cases of varicose eczema of the legs, with large denuded areas to which sulfathiazole ointment had been applied for a short time. Fever and generalized eruption developed, which subsided upon withdrawal of the drug. In both cases the rash was reproduced subsequently by ingestion of small doses, in one instance the cutaneous reaction being generalized within 6 hours after only gr. $\frac{1}{8}$ had been taken.

The experience of the present writer in the past few years since sulfonamides, and particularly sulfathiazole ointment, have come into general use has closely paralleled

that of the writers referred to above. All of the above reactive phenomena which they have noted have been observed in varying degrees of intensity and extent repeatedly. In the last two years such reactions, if not a matter of daily observation, have certainly been observed on an average of more than once weekly. At one time early in 1943 there were 4 cases of generalized cutaneous eruption, all with fever ranging up as high as 103° and considerable prostration, following the use of sulfathiazole locally and/or orally, all in hospital under my care at the same time. This means at a conservative estimate not less than 60 hospital-bed-days, probably more, and in no case would the condition for which the sulfathiazole had been used have required any hospital care.

It would appear that among a considerable proportion of the doctors in practice the truly marvellous response of some bacterial diseases, some hitherto regarded as hopeless, to sulfonamide therapy has entirely unseated their critical powers of judgment in respect to these drugs. They have come to regard sulfonamides as a gift from Heaven when they are confronted with any baffling therapeutic problem. Among these problems, as I have before had occasion to remark, skin diseases form a large proportion. It would appear to have been forgotten that the sulfonamides have been found to be of use only in a certain number of bacterial infections. They have not been found to be of the slightest value in virus or mycotic infections. Nevertheless they are daily applied in cutaneous conditions where a minimum of investigation and thought would have shown that bacterial invasion played little or no part whatever. Among conditions in which I have found them ordered within very recent months are eczema, contact dermatitis, varicose eczema and ulcers, acne, herpes zoster, herpes simplex and ringworm. They are also used in the commonest and most trivial infections, where five years ago the doctor would have resorted without hesitation and with a considerable measure of success to time-tried remedies which are just as valuable today as they ever were.

In spite of the unqualified comment of some authorities that sulfathiazole will cure impetigo, I have seen several cases of impetigo in which a sulfathiazole ointment (prepared by reliable pharmaceutical manufacturers and therefore presumed to possess the correct physical properties which an ointment of this sort should have, and as important for successful use as the active principle contained) had failed to give successful results, but which were cured promptly by the proper use of a well-designed white precipitate formula.

Warnings have not been wanting ere this. Such articles as those which have been quoted from have been appearing in increasing numbers, from the pens of men occupying the most authoritative positions in dermatological study and teaching. These articles have not been confined to publications devoted to a specialty but have with rare exceptions appeared in the journals having the widest circulation in Canada, Great Britain and the United States.

As a result of what one can only call the profligate employment of sulfonamides, particularly in forms adapted for topical medication, available to the public in every drugstore, the people have followed the lead of the medical profession, and it is very common to find patients resorting to self-medication with the "new miracle-drugs" in ointment, powder and pill form, to treat any and all skin disorders, just as they are using the pills for colds and sore throats and "rheumatism."

The cases which I encounter follow a general pattern more or less closely. They have had a sulfathiazole ointment prescribed with little or no good reason for some skin disorder. After using it for a week or longer, often over extensive areas, sometimes with temporary benefit, the trouble has become worse. Sometimes the original eruption has appeared to be extending much beyond its original confines, or there has instead been a generalized eruption developing suddenly with a morbilliform, later scarlatiniform character, accompanied by malaise or prostration, chilliness and elevated temperature. The blood-concentration of the drug has not been significantly elevated. Often about the time that it became apparent that the original skin trouble was getting worse instead of better the topical medication has been augmented by oral sulfathiazole medication. This had the very prompt effect of precipitating an explosive type of generalization.

In one instance where sulfathiazole ointment had been used for some months without producing any effect, good or bad, on a varicose dermatitis, the patient developed a common cold with sore throat and coryza. The administration of sulfathiazole tablets resulted in rash and fever, whereupon a diagnosis of measles was made and the patient sent to hospital. Other similar sequences have been observed in which there had been an interval of several weeks between the discontinuance of topical medication and oral administration. More rare have been the cases in which several weeks or months after the internal use of sulfathiazole, the drug in ointment form had been used on the skin with the almost immediate production of an acute and spreading dermatitis.

As to the value of sulfathiazole, the drug most commonly implicated, there can be no question when it is used under proper indications. But it is impossible to over-emphasize the fact that contrary to the apparent general assumption it is no panacea for skin diseases. In the writer's apprehensions the time may not be far distant when these drugs, to say nothing of the members of the profession who prescribe them indiscriminately for cutaneous and numerous other afflictions, will be discredited by a considerable and disproportionately vocal number of the people.

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NATIONAL FOUNDATION FOR INFANTILE PARALYSIS

Realizing the acute need for physical therapy personnel, partly resulting from the war, The National Foundation for Infantile Paralysis has just made a two-year grant totaling \$34,080 to the Stanford University School of Health (Women) at Stanford University, California, it is announced by Basil O'Connor, president of the National Foundation.

This grant, which is in addition to other funds given by the National Foundation to this University, is for the two-fold purpose of strengthening the physical therapy technicians' school and of preparing syllabi and text materials for the use of physical therapy instructors and their students.

Under this programme selected students will be provided specialized training designed to prepare them to become skilled teachers of physical therapy.

"The 1943 epidemic of infantile paralysis emphasized the serious lack of physical therapy technicians and qualified teachers," Mr. O'Connor said. "It would seem that the success of any attempt to develop a satisfactory corps of technicians in the United States would depend to a considerable extent on having adequately trained instructors engaged in teaching this subject, and suitable text materials."

PENICILLIN IN WAR WOUNDS

A Report from the Mediterranean

(Unsigned) *Lancet*, 2, 742.

THE TREATMENT OF WAR WOUNDS WITH PENICILLIN

By L. P. GARROD

British Medical Journal, 2, 755-756, 11/12/43

These are reviews of "A preliminary report to the War Office and the Medical Research Council on investigations concerning the use of penicillin in war wounds. Carried out under the direction of Professor H. W. Florey and Brigadier Hugh Cairns." This memorandum, published by the War Office in London, has a limited circulation and is not generally available.

Work in England and America had established that among the organisms most sensitive to penicillin were three of those most damaging in war wounds—*Streptococcus pyogenes*, staphylococci and the clostridia. It had further amply established that infections by the pyogenic cocci, however severe, could usually be controlled by penicillin. When penicillin was taken to the Mediterranean theatre of war, therefore, the object was not to establish its effectiveness, but to ascertain the best and most economical methods of use to prevent sepsis in battle casualties. The principles of use were those already established in the laboratory and clinic. As supplies of the drug were extremely limited, attention was always directed to using the smallest amount. In this series, therefore, parenteral injection was reserved for those in whom local application could not be expected to reach all infected areas, although with plentiful supplies many more patients would probably be treated parenterally.

The technique of local application was studied fully. It was not found possible to compare the results with those obtained by current methods of treatment, but it appeared that in the ordinary way large numbers of the more serious war wounds became infected. The effectiveness of the sulphonamides, which were widely used for battle casualties, was still neither established nor disproved.

Chronic sepsis. The first patients treated had septic wounds from 3 weeks to 4 months old, none of which had responded to sulphonamides. Considerable success was obtained in soft tissue wounds by local application of penicillin; bacteria disappeared and the wounds became clean. Compound fractures were beyond the effective reach of local applications, but some recovered on parenteral administration. In others, the extensive suppuration was maintained by insensitive organisms after those sensitive to penicillin had been eliminated. It was felt that to treat sepsis at this stage was wasteful of penicillin and of man-power, both military and medical, and the next series was treated at the Forward Base Hospital.

Recent soft tissue wounds. Current army practice was to excise the wound at the Casualty Clearing Station and leave it open. At the Forward Base Hospital some of the cleanest wounds were then sutured, but many were allowed to heal by granulation, followed later in some cases by delayed suture or grafting. Nearly all such wounds contained pathogenic organisms, and many became septic. The technique for using penicillin in soft tissue wounds at the Forward Base Hospital was as follows. After conservative excision, the skin in particular being as far as possible preserved, the skin was undercut to mobilise the edges. The wound was closed by deep skin sutures, occasionally with muscle sutures in addition. From 1 to 5 fine rubber tubes were inserted through stab holes or through the incision, reaching to the base of the wound and protruding through the dressings at the free end. Three cm.³ of a 250 unit per cm.³ penicillin solu-

tion were injected immediately through a syringe attached to each tube, and thereafter 12-hourly for 4 or 5 days. Many wounds were healed in 10 to 12 days, and by 3 weeks complete healing had taken place in 104 out of 171 cases and incomplete healing (*i.e.* with a small area of granulation in some part of the wound) in 60 more. Only 7 cases were classified as failures. Pus due to *Ps. pyocyanea*, *B. proteus* or coliform organisms was often formed, but it caused no inflammatory reaction and did not delay healing unless there was a dead space in which it could accumulate.

Even the largest wounds healed completely when treated in this way. There was general agreement that healing was complete in about half the customary time, and that scar formation and permanent disability were very greatly reduced. It is emphasized that under no circumstances should a wound be sewn up in this way in the forward areas, but only in a hospital where the patient can remain.

In another series of patients penicillin-sulphonamide powder, 5,000 units per gram, was insufflated at the Casualty Clearing Station, and suture with tubes, or powder insufflation, was carried out at the Forward Base Hospital. About half the wounds were sterile when received at the Forward Base Hospital; the final result as regards healing was similar to that of the first group.

Compound fractures. These were too extensive for local treatment, and were treated by parenteral administration after suture of the wounds. About 100,000 units of penicillin were given daily for the first 3 days and 50,000 for 2 days more. On this dosage the less serious fractures did well, but some failures were recorded, particularly in fractured femur. Out of 31 patients, complete skin union occurred in 16, partial union in 10, and failure in 5. It seemed clear that with a larger dose better results might be achieved, and a total of 700,000-1,000,000 units in 5-10 days for femur and tibia, and of 500,000 units for other fractures, was recommended for future use. Preliminary treatment with penicillin powder at the Casualty Clearing Station was an asset in achieving a good result, and it was recommended that penicillin in the forward areas should be reserved for compound fracture.

Gas gangrene. Seven patients were treated parenterally and 4 recovered. In 2 who died the infection had been arrested and death was caused by toxæmia. It was concluded that penicillin should not obscure the necessity for excision of all dead muscle and for giving doses of anti-gas-gangrene serum. Its greatest use for gas gangrene would probably be as a prophylactic.

Head wounds. As the results of current methods of treating fresh head wounds were very good, penicillin was reserved for penetrating wounds more than 3 days old. Of 23 wounds from 3 to 12 days old, almost all were infected with grampositive pyogenic organisms and about half were suppurating. The principle of closure with tubes was employed. Twenty cases healed satisfactorily and three died. In one of these the infection had been controlled, in another only coliform organisms were present at autopsy, and the third, with an 8-day old brain wound containing pneumococcal abscesses, received too little penicillin.

Other groups of cases. A few cases of spinal cord injury and of burns infected by sulphonamide-resistant streptococci were treated with good results.

Ten cases of gonorrhæa, 9 of them sulphonamide-resistant, were treated with an arbitrary dose of 12 injections in 48 hours, totalling 180,000 units. Immediate cessation of discharge, "like turning off a tap," was invariable. There was no relapse during the time of observation (2 to 4 weeks).

LIQUOR PRESCRIPTIONS

It is requested by the Liquor Control Board that all prescriptions for liquor contain the name and address of the patient for whom liquor is prescribed, the name and address of the physician prescribing same and the date on which the prescription is issued.

NEWS AND NOTES

Dr. and Mrs. A. E. Davidson of Essondale are receiving congratulations on the birth of a son born on April 25th.

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Congratulations are extended to Dr. and Mrs. Gordon Stonehouse of Vancouver on the birth of a daughter, April 10th.

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Dr. R. G. D. McNeely was married in Toronto on April 26th.

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Dr. J. B. Swinden of White Rock was married to Mrs. Jean Nevill on April 29th.

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Capt. W. J. Endicott, R.C.A.M.C., who has been stationed at Vernon Military Hospital, spent a few days' leave with his family in Trail.

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Capt. F. L. Wilson, R.C.A.M.C., has been in Trail during his two weeks' leave.

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Dr. D. T. R. McColl of Queen Charlotte City was in Vancouver and called at the office.

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Dr. A. E. Kydd, who is associated with Dr. C. E. Cook at Michel, was in Vancouver recently.

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Dr. Gordon McL. Wilson has taken up practice at Kelowna. Dr. Wilson was recently discharged from the R.C.A.M.C.

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Dr. L. A. C. Panton, on his return from Vancouver where he attended the meeting of the Board of Directors and the special meeting on Health Insurance, stopped off at Little River and joined Dr. J. S. Henderson of Kelowna for a little fishing party. They had a good rest but we have no report on the total number of fish brought to net.

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Dr. W. F. Anderson of Kelowna attended the meeting of the American College of Surgeons on April 18th and the special meeting on Health Insurance on April 19th during his visit in Vancouver.

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Dr. R. B. White of Penticton visited Vancouver recently.

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It is reported that Dr. Hugo Emanuele, who was associated with the late Dr. H. McGregor in the practice at Penticton in the absence of Flight-Lieut. H. B. McGregor, is planning to open an office and set up practice in Penticton.

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Dr. W. H. B. Munn, who was associated with Dr. Emanuele since the death of the late Dr. H. McGregor, is carrying on the practice in the McGregor office.

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Dr. G. C. Paine of Penticton is, according to reports, busily engaged in practice and enjoying a good measure of good health.

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Surg. Lieut. Commander F. P. McNamee, formerly of Kamloops, has arrived at the Coast recently.

It has been decided to form a society to be known as the Kamloops and District Medical Society. During the past year the medical personnel of the Sanatorium at Tranquille attended many of the regular staff meetings at the Royal Inland Hospital at Kamloops. At a meeting in November, 1943, it was decided with the consent and approval of the staff at Tranquille that this joint medical society be formed.

Those in charge of the Society are hoping that many of the men from nearby towns will find it convenient to attend and contribute to the success of the meetings, which will be held monthly. They have been invited to attend and will be given a cordial welcome.

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We are glad indeed to report that Dr. M. J. Keys of Victoria is well on the way to recovery from a rather serious illness.

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Dr. J. W. Lennox, President of the Victoria Medical Society, has recently become a grandfather. Mrs. Hewitt, the former Jean Lennox, has just had a new baby.

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Capt. R. C. Newby, R.C.A.M.C., was in Victoria saying farewell to his friends prior to leaving this district.

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The last meeting of the Board of Directors of the British Columbia Medical Association was held on April 19th. Drs. P. A. C. Cousland, President; G. F. Amyot, F. M. Bryant and Thomas McPherson of Victoria attended. Others who came to Vancouver for the meeting were: Doctors C. H. Hankinson, Prince Rupert; G. A. McLaughlin, North Vancouver; A. H. Meneely, Nanaimo; D. J. Millar, North Vancouver; L. A. C. Panton, Kelowna; P. L. Straith, Courtenay, and J. S. Daly, Trail.

The announcement was made that Dr. M. G. Archibald of Kamloops had been selected as Senior Member in the Canadian Medical Association, which honor would be conferred upon him at the annual meeting in Toronto.

Dr. P. A. C. Cousland of Victoria was nominated for election as representative from British Columbia on the Executive Committee, C.M.A. Dr. A. Y. McNair of Vancouver, first vice-president, was nominated for election as alternate representative from B. C. on the Executive Committee, C.M.A. Dr. A. H. Spohn of Vancouver, who is the present representative on the Executive Committee, C.M.A., was selected for appointment to the Nominating Committee of the C.M.A.

Dr. J. R. Neilson, Chairman of the Committee on Programme, announced that the 1944 Annual Meeting of the British Columbia Medical Association would be held in Victoria with headquarters at the Empress Hotel during four days, September 26th, 27th, 28th and 29th.

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A large meeting of the profession was held on April 19th in the Hotel Vancouver. Dr. Cousland of Victoria, President of the Association, acted as Chairman.

Dr. G. F. Strong, Chairman of the Committee on Economics, led the discussion, which was centred on the Twenty Principles of Health Insurance, which had been prepared by the Committee on Economics and approved by the Board of Directors of the British Columbia Medical Association. Considerable discussion ensued and many questions were asked and answered. In the end the Twenty Principles with slight modification were endorsed by the meeting.

Many members from out of town, who had been in Vancouver attending the meeting of the Board of Directors, and others who had come especially to attend this meeting on Health Insurance and had during their stay in Vancouver attended the military sessions on the previous day of the American College of Surgeons, participated in the meeting, which comprised representatives from practically every part of the Province. A number of officers in uniform were present and took part in the discussion.

The annual meeting of the Council of the College of Physicians and Surgeons was held in the Council offices, 203 Medical-Dental Building, Vancouver, on Monday, May 1st. Dr. F. M. Bryant presided.

Many matters were dealt with during this long session. The elections placed the following in office for this year:

President, Dr. H. H. Milburn, Vancouver.

Vice-President, Dr. F. M. Auld, Nelson.

Honorary Treasurer, Dr. G. S. Purvis, New Westminster.

Chairman of the Committee on Health Insurance, Dr. Thomas McPherson, Victoria.

Chairman of the Committee on Economics, Dr. H. H. Milburn, Vancouver.

Chairman of the Legislative Committee, Dr. Thomas McPherson, Victoria.

Representatives on Board of Directors, British Columbia Medical Association: Dr. F. M. Bryant, Victoria, and Dr. G. S. Purvis, New Westminster.

Dr. E. J. Lyon of Prince George, who has been appointed by Council to complete the unexpired term and fill the vacancy caused by the death of the late Dr. Osborne Morris of No. 4 District, was welcomed to his first meeting of Council.

On Tuesday, May 2nd, the Council held a conference with the Chairman and members of the Workmen's Compensation Board, and discussed a number of matters of interest to both the profession and the Board. It was felt that such conferences will be mutually helpful.

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Squadron Leader Neil A. Stewart has been recently demobilized and has resumed practice in Vancouver. Doctor Stewart is now in charge of the practice of Dr. A. J. MacLachlan. We are pleased to report that Dr. MacLachlan is making a splendid recovery and has benefited by several weeks' rest.

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Among those from out of town who were in attendance at the meeting of the American College of Surgeons and the Special Health Insurance Meeting held in Vancouver were: Drs. D. W. Beach of McBride, J. G. MacArthur of Prince George, H. J. Alexander of Vernon, R. W. Irving and J. S. Burris of Kamloops, E. W. Boak of Victoria and R. G. Knipe of Prince Rupert.

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Among recent promotions were Lieut. Col. K. L. Craig, R.C.A.M.C., and Major R. A. Wilson, R.C.A.M.C.

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The Upper Island Medical Association held its Spring meeting at the Ben Bow Inn, Qualicum Beach, on May 4th. In the absence of Major S. L. Williams, R.C.A.M.C., who is president of the Association, the vice-president, Dr. E. D. Emery of Nanaimo, presided. Dr. C. C. Browne is the energetic secretary and is responsible for keeping the Association very active.

The speaker of the evening, following an excellent dinner, was Dr. P. L. Straith of Courtenay, who dealt with Gall Bladder Disease. Dr. M. W. Thomas, Executive Secretary of the College of Physicians and Surgeons, was present and discussed with the members certain live topics of interest at this time and answered a number of questions.

Those present included Doctors G. K. MacNaughton, Cumberland; P. L. Straith and T. A. Briggs of Courtenay; Surg.-Lieut. Arbour, R.C.N.V.R.; E. N. East, Qualicum; R. W. Garner, G. B. Helem, A. P. Miller, W. C. Pitts of Port Alberni; Capt. N. H. Jones, R.C.A.M.C., formerly of Port Alberni; C. C. Browne, A. B. Hall, E. D. Emery, A. H. Meneely of Nanaimo; H. G. Garrioch of North Battleford, Sask., who was visiting Dr. Meneely.

GOLF

The first golf tournament of the 1944 season was held on Marine Drive Golf Course on Thursday, May 11th. In spite of overcast skies at noon, 40 golfers participated in the afternoon play. Dinner was held at the Clubhouse in the evening and a goodly number remained to watch the presentation of prizes which took place there.

The best prize of the day went to that perennial winner of golf prizes, Dr. S. C. Peterson, whose 66 was the low gross for the day; he received a tobacco humidior.

The low net was a 66 turned in by Dr. Burroughs, one of the internes at the General Hospital; his prize was a pair of tone-ray goggles.

The best drive was also won by a member of the interne staff, Dr. Charlton, who received a sterling silver Foxhole lighter.

The scores will be carried forward to determine the winners of the Ramshorn trophy and the Macdonald trophy.

The next tournament is planned for the third Thursday in July, and it is hoped more of the men will take the time to attend this tournament.

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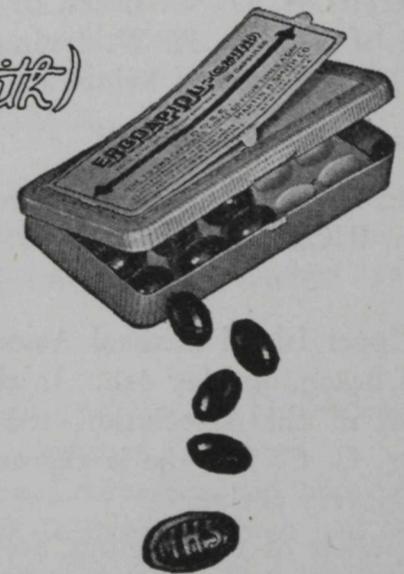
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An aqueous extract of rice bran with added vitamins A, B₁, D, Iron and Iodine. Each 4 c.c. contains:

Vitamin A	-	4000 I.U.
Vitamin D	-	400 I.U.
Thiamine Hydrochloride	-	748 gamma
Pyridoxine	-	400 gamma
Calcium Pantothenate	-	2500 gamma
Niacin	-	7500 gamma
Choline	-	10000 gamma
Iron	-	7500 gamma
Iodine	-	100 gamma
Riboflavin	-	†

† Riboflavin, Calcium and Phosphorous are present in adequate quantities in milk. Dapta with milk requires no other vitamin or mineral supplement except vitamin C.

DOSAGE:

Infants—2-3 drops (2 min.) in each oz. of milk formula. 1 teaspoonful with 1 qt. of milk or milk formula daily.

Children—1 teaspoonful daily with 1 qt. of whole milk.



Miscible with Milk
Palatable
Proper Potency
Stability Assured
Economical

S M A—BIOCHEMICAL DIVISION

John Wyeth & Brother (Canada) Limited
Walkerville - Ontario

* TRADE MARK REG'D IN CANADA

FATHERS OF CANADIAN MEDICINE

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Michel Sarrazin

PHYSICIAN AND SURGEON
(1659-1734)

SARRAZIN was the most famous physician and surgeon of his day in Canada. In addition, he achieved distinction as a naturalist. He was born in Nuicts-sous-Beaune, in Burgundy, France, in 1659. He obtained his medical degree at the University of Rheims. The year 1686 found him serving as Surgeon Major of the French troops at Quebec where he remained and entered into the life of the colony.

He was chosen as physician of l'Hôpital Général by the Sisters in 1693. A year later he returned to France for further study. Returning to Canada aboard the "Gironde", he fought a severe outbreak of typhus and saved many lives including that of Mgr. de St. Vallier, Bishop of Quebec and founder of the Hôtel-Dieu, Quebec.

Papers written by Sarrazin on Canadian wild life earned him membership in the Royal Academy of Sciences (France). These works included anatomical studies of the lynx, muskrat, deer, moose, porcupine and the beaver. He catalogued 200 Canadian plants and also wrote a treatise on the production of maple syrup.

Sarrazin operated for what is believed to have been cancer on the persons of Sister Marie Barbier and Sister Elizabeth Cheron. He is reported to have performed several similar opera-

tions and "others more difficult". He is credited with the introduction of the pitcher plant (*Sarracenia Canadensis*) for the treatment of smallpox.

This great pioneer physician and surgeon received little or nothing from his patients. As Doctor of the King, he was granted 300 livres a year and even when this was increased to 600 livres, Sarrazin was so hard put that he expressed a desire to leave the colony. To prevent his departure and augment his income he was made a member of the Superior Court. Later, his emolument was increased to 2,000 livres per annum.

Still active at 75, Sarrazin fell ill and died of hemorrhagic smallpox at the Hôtel-Dieu, Quebec, on September 8th, 1734, after two days' illness.

The example set by men of character by Sarrazin, in helping to established the practice of medicine in Canada on a sound foundation inspires this company to maintain with unceasing vigilance its policy — Therapeutic Exactness and Pharmaceutical Excellence.

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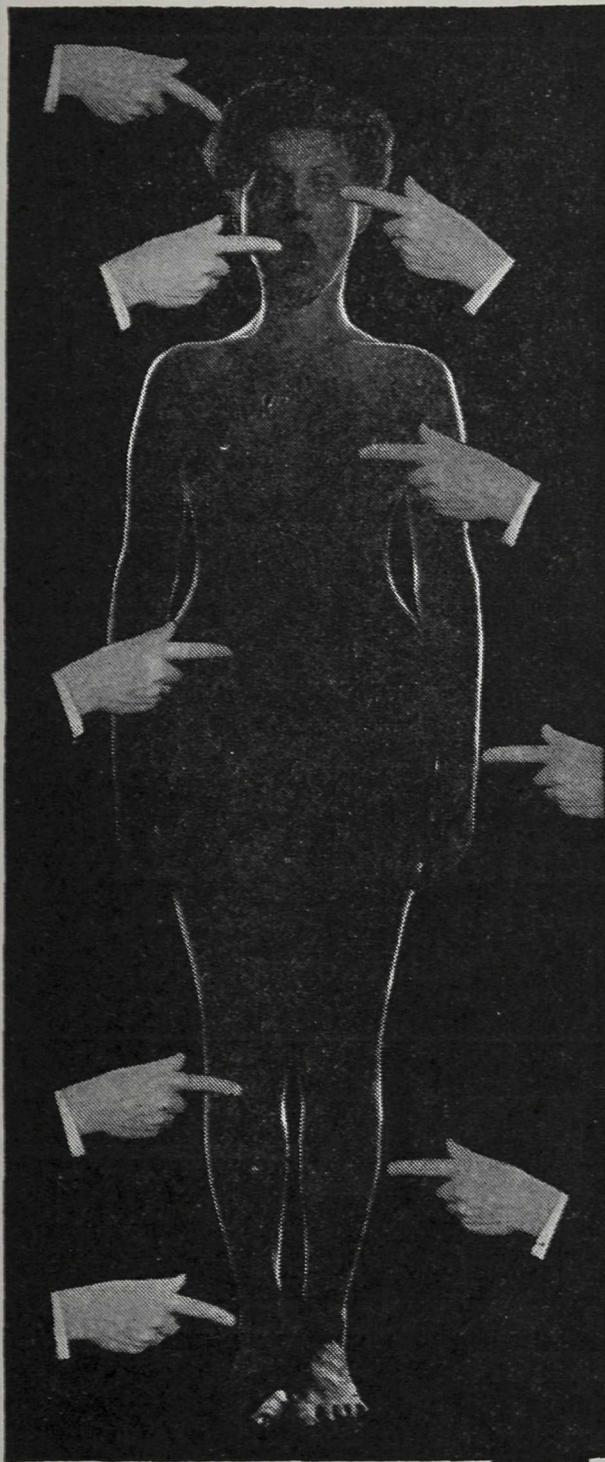
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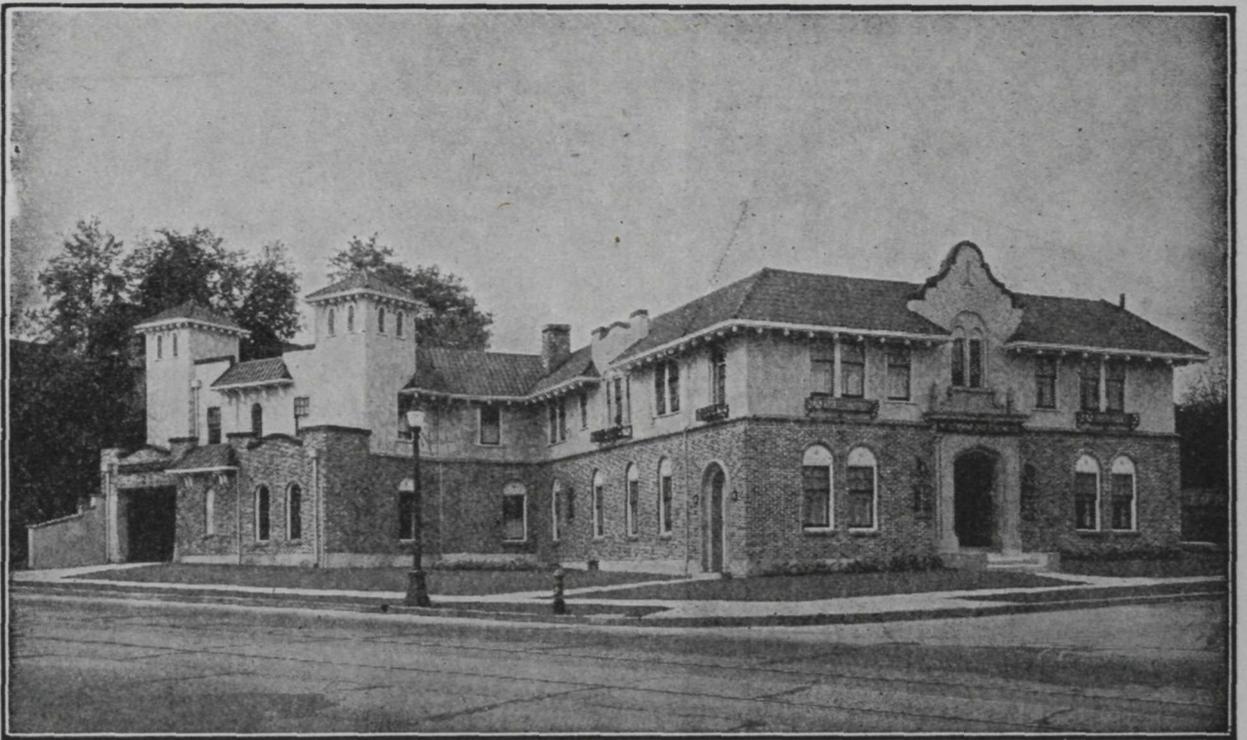
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HEMATIC HIMMLER, S.S.

Patient was discovered in the monkey house at the Tiergarten by one "Iron Hermann", who noticed one of the occupants wearing spectacles. Investigation revealed this to be a human.

When first interviewed, a pronounced euphoria was evident, but the reading of despatches from the eastern front had a rapid sobering effect and it was possible to elicit the following:

Father was a noted alcoholic and died of a fall from a pink elephant. Financial embarrassment and inability to work, enforced sobriety upon patient until the age of 23. His first debauch occurred in Munich in 1923 when he participated in a beer hall orgy with a party of dissolute companions. Following this, he entered upon a period of prolonged alcoholism, subsisting mainly upon rubbing alcohol, canned heat and bay rum. He finally acquired a police post and the steady wages enabled him to change his beverage to paregoric.

While on a spree in July, 1934, he organized a "blood bath" in which a number of his friends were most unwilling participants.

He believes that a bomb concussion sent him into the predicament in which he was found, but is unable to understand why his presence in the monkey house should have gone unnoticed for three days.

DIAGNOSIS: Patient was referred to Dr. Ley of "Joy of Living Department", who pronounced him a clearly defined example of Polandemia (Polish great-grandmother).

TREATMENT: Dr. Ley suggested that the Reich was not altogether suited to the patient's constitution. Immediate departure for South America was recommended and Dr. Ley insisted that he should accompany the patient in order that he might supervise the complete cure. Frequent transfusions of pure Aryan blood are to be continued.

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Vitamin A . . .	3750 I.U.	Vitamin C . . .	25 milligrams.
Vitamin B ₁ . . .	200 I.U.	Vitamin D . . .	500 I.U.
Vitamin B ₂ . . .	500 gammas	Emulsified in a glucose base.	

DOSE: One teaspoonful daily. The cost is moderate.

PACKAGE: 2 oz. and 16 oz. bottles.

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NO WATER BATH

NO HEATING

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for
URINE - SUGAR
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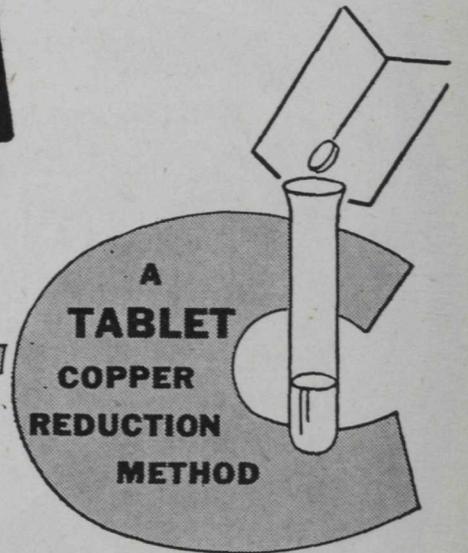
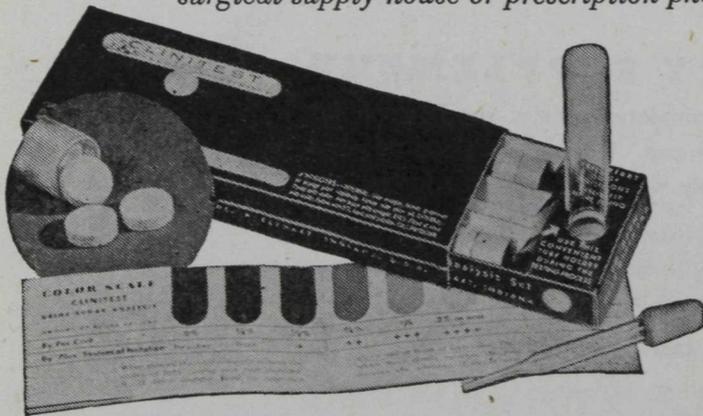
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● Apart from forming a container for the diluted urine, the Clinitest test tube, is a contributory factor toward accuracy in the tests. According to Matthews' Physiological Chemistry, sixth edition, page 41 . . . all reducing sugars in warm, strongly alkaline solutions are oxidized to varying extents by atmospheric oxygen. When a Clinitest tablet reacts with an aqueous solution, a quantity of CO_2 is liberated. There is some evidence that this gas in narrow confines of the test tube, acts as a barrier against the entrance of atmospheric oxygen into the hot alkaline solution.

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Urine-Sugar tests by the Clinitest Tablet Copper Reduction Method, are not expensive. The Clinitest Set as illustrated, is complete with test tube, special dropper, tablets for 50 tests, instruction book with color scale, and analysis record. Cost to patient is now \$1.75. Tablet Refill for 75 tests, \$1.75.

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THE term "bulk laxative" covers many types, including laxatives that greatly distend *themselves* in the colon.

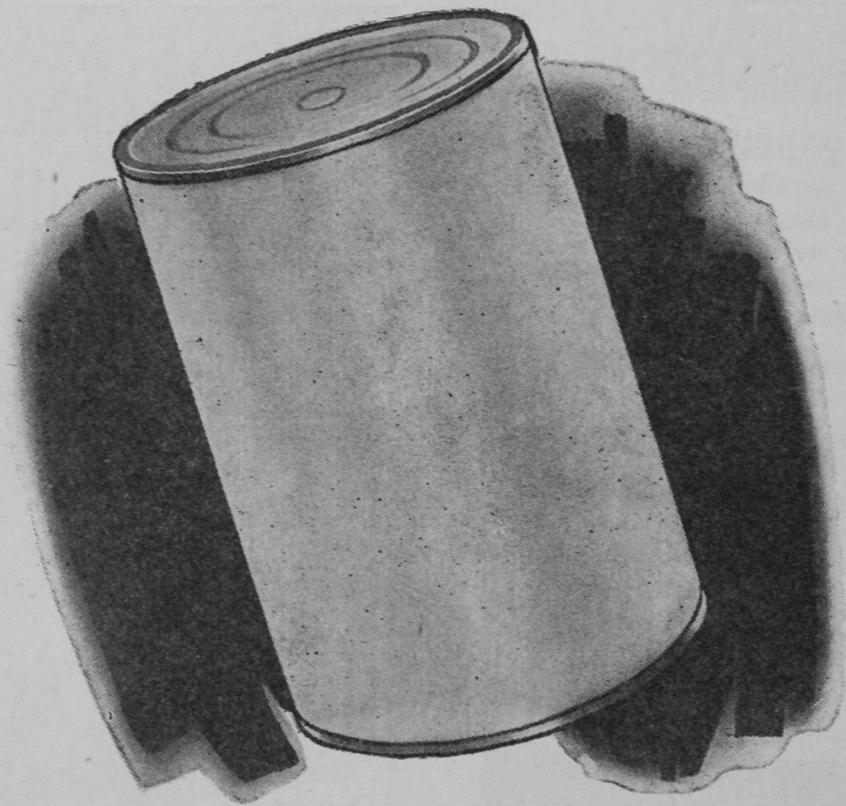
This is NOT ALL-BRAN'S action. This food cereal PREPARES wastes themselves for easy, natural elimination.

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