

Reduction Of Blood-Loss During Surgery*

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BLOOD-LOSS is a necessary accompaniment of surgery. When tissues are cut they bleed, some more and some less. Now, there are certain states of hypnosis and auto-hypnosis when there is scarcely any bleeding at all. The late Yoga and transfixionist, Damon Rago, had his abdomen and thorax run through many times with long steel bodkins and when they were withdrawn the skin was pinched together and no bleeding occurred. When he died at last, it was I believe from mediastinitis, and not from haemorrhage consequent upon the practice of his art.

Here is a control of bleeding which is not uncommon. Does it hide any principle which we can apply in our everyday work, and which may be used to diminish surgical blood loss?

I think perhaps it may.

The suppression of emotional and physical response to stimulation, which is inherent in the Yogas training can be mimicked to some extent by a perfect anaesthetic quietism. That is to say, an arrangement of techniques which ensures a complete lack of response of any kind on the part of the patient. For when we look into the matter of operative blood loss we will see that much of the bleeding that occurs is reactive — something happens in the patient which makes the bleeding more than it ought to be.

We have heard much, perhaps too much, of arterial hypotension to reduce haemorrhage. Tonight I want you to think instead of the capillary bed, and beyond, to the venous side of the circulation, for it is there, in the blood's homecoming to the heart that our main concern should lie.

You will remember that the mean blood pressure falls across the capillary bed from 32 mm. Hg. at the arteriolar end to 12 mm. Hg. at the venous end, and then to about 3 mm. Hg. when it reaches the right auricle. Whatever we do to the arterial pressure, within reason, these capillary pressures remain much the same.

But what about the venous side?

This, on the other hand, is an extremely labile system, the venous pressure being greatly affected by two things: —

1. Firstly, changes of intrathoracic pressure. A rise of intrathoracic pressure dams back venous flow into the right auricle and raises the pressure in the great veins, and from there the raised venous pressure is propagated all over the body. Thomas Willis's discovery of the unity of the venous system should be continuously with us, as it has great practical application in our day-to-day work.¹ Any rise of pressure in the thorax or abdomen is transmitted via the intercosto-vertebral anastomoses, upwards and downwards through the valveless extradural veins, to all levels of the body, raising the venous pressure everywhere. (See Fig. 1).

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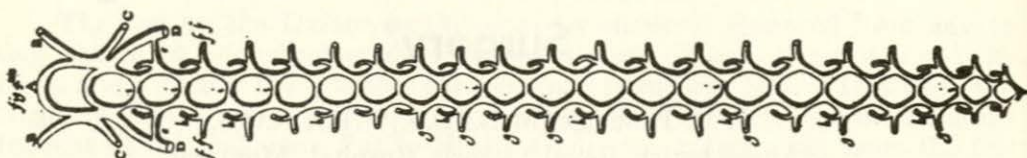


Fig. 1. Diagram from Thomas Willis' book "Cerebri Anatomie" (1664), showing the connections of the internal vertebral venous plexuses. B.B. connection between the vertebral plexuses and the cranial sinuses.

ff. {
gg. { Intervertebral veins.

2. The second factor influencing venous pressure is venomotor tone. Changes of venomotor tone are brought about reflexly by changes in pressure in the great veins and the right auricle, and these in turn are dependent on intrathoracic pressure.

In the conscious subject, changes of venous pressure follow closely on changes in airway pressure. When the intrathoracic pressure goes up in straining or coughing, the venous pressure goes up too; when the airway pressure returns to normal, the venous pressure returns to normal also.²

But under anaesthesia, for some reason, venomotor tone is more persistent. There is an after-lag, and brief rises of airway pressure are followed by prolonged elevations of venous pressure — for as long as 20 to 30 minutes.³ Thus, one bout of coughing, and the venous pressure goes up, and stays up for half an hour.

Fig. 2 represents the changes in blood pressure that occur in coughing and straining. On the left is the normal state of affairs. With a mean arterial pressure of 100 mm. Hg. the pressure falls across the arteriolar bed to 32 mm. Hg. at the arteriolar end of the capillary. A further fall to 12 mm. Hg. occurs across the capillary bed, and so on down to the right auricle. On the right

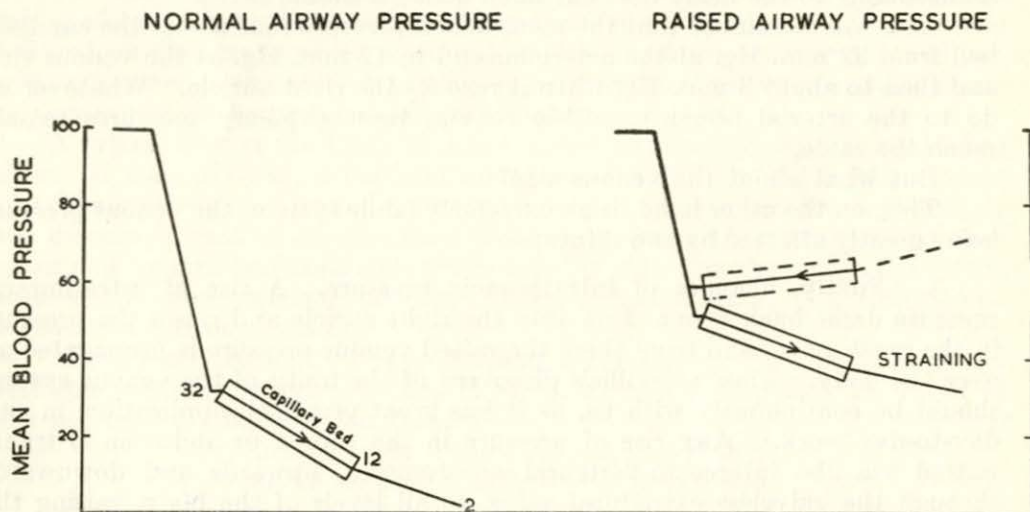


Fig. 2. Changes of mean blood pressure across the arterial and capillary beds under normal conditions (on left) and with a raised airway pressure.

we see what happens when the intrathoracic pressure is raised in coughing and straining. The venous pressure is forced up and this raises the whole level of arteriolar and capillary pressures so that the circulation gradient can be maintained. Thus, the hydrostatic pressure from cut surfaces is much higher than it should be, and bleeding is increased. Pask and Griffiths in England have carried out carefully controlled studies on weighed blood loss at operation, and they have shown that after one bout of coughing the rate of blood loss for the remainder of the operation is double what it was before.

Some of you will have seen Dr. Trier Mörch's excellent film on capillary flow in the bat's wing. There he shows in a very beautiful way how high airway pressure can actually cause a reversal of capillary blood-flow—a remarkable illustration of the evils of a high airway pressure. If you have not already seen this film of Mörch's I would strongly recommend it to you.

It is clear then that as far as blood-loss is concerned, the venous pressure is really much more important than the arterial pressure. A large part of the bleeding from a surgical incision comes from the capillaries and the venules, and no matter what the initial arterial tension, the pressure in the capillary bed will start in the region of 32 mm. Hg., owing to the peripheral resistance of arteriolar tone.

It is true that arterial hypotension can be a great help in reducing surgical haemorrhage, but only if the venous pressure is low also. If the venous pressure is high due to clumsy anaesthesia we are wasting our time—in fact, we may even make the bleeding worse by imposing vascular dilatation in the presence of a high back pressure.

Therefore, it is imperative that we put first things first, and concentrate on providing a low venous pressure before we start to complicate the issue by inducing arterial hypotension.

Now, this imposes a severe discipline on the anaesthetist, for it means providing a good anaesthetic.—And by a "good anaesthetic" I mean one where the patient is completely tranquil all the time. That is, there must be absolutely no response to the surgical, or the anaesthetic procedure from beginning to end. The work the patient does in breathing must be kept to a minimum by the abolition of all resistance and carbon dioxide must be adequately eliminated.

This means that there must be no straining or coughing at any time, for one cough under anaesthesia will raise the venous and capillary pressures for up to half an hour. Airway resistance must be at a minimum. There must be no obstruction, and endotracheal tubes must be of large bore and put in place without causing any suspicion of "bucking." If the patient is breathing spontaneously, the circuit should be a valveless one and so arranged that there is minimal resistance to airflow. This is best done by a modified Ayre's T-piece—the so-called Bullough circuit, using a high rate of flow of gases (10-12 litres/min.) to eliminate CO₂. If we are using muscle relaxants we should use sufficient to paralyse the patient adequately and provide good compliance, so that we can carry out completely controlled respiration, rather than assisted respiration—for the latter is difficult to do without getting slightly out of phase from time to time, thus raising the airway pressure too high.

Reflex responses to painful stimuli must be completely obtunded, eith

by analgesic and anaesthetic drugs, or by efferent blockade using the neuro-muscular blocking agents.

When these conditions of tranquility are satisfied, and then only, can we go on to other ways of reducing bleeding.

Now let us glance back at the Yogi we mentioned at the beginning. In our policy of anaesthetic quietism we have taken our patient along some of the paths that he has trodden. In both situations there is a tranquility of body and mind, although arrived at differently. There is no tense reaction to the surgical insult inflicted — as St. Paul put it, there is no kicking against the pricks. Our technique has enabled the body to accept what has to be, gracefully, without any purposeless fight, and in this passive state the blood runs softly and spills but little.

There are two details of technique which I find useful in providing a quiet induction, and maintaining tranquility over long periods.

One is the use of transtracheal topical analgesia to anaesthetize the larynx prior to intubation. Paradoxically, this seems a traumatic thing to do, and one which would almost certainly raise the venous pressure by the temporary coughing it induces. However, if the injection is made before induction of general anaesthesia there is no enhanced activity of the venomotor reflex, and although the venous pressure rises when the patient coughs, it quickly settles again — quite unlike the prolonged rise of venous pressure that occurs with coughing *after* induction. I use 2-3 ml. of 4% Xylocaine for this procedure, 2-3 minutes before induction with pentothal or evipan. Then the cords are wide open and the tube drops into place with no reaction at all.

The other technique which I find helpful is the use of chlorpromazine mixed with phenergan and demerol — the so-called "lytic cocktail." I feel almost apologetic about mentioning this, as so much exalted nonsense has been written about it, but whatever else these drugs may do, they certainly provide a good solid basal narcosis, free from all reflex irritability. The venous pressure is low, and there is vasodilatation — so that postural arterial hypotension is easily obtained. The tracheo-bronchial reflexes are obtunded, so that an endotracheal tube is well tolerated. I use this as a background with nitrous oxide, and a little pentothal or trilene from time to time, for all big procedures about the head and neck. The patient is postured so that the operative site is higher than the rest of the body, and the arterial blood pressure runs in the region of 100-110 mm. Hg. With this technique, using the Bullough open circuit and a high flow, the patient goes along quietly for hours on end with very minimal bleeding.

At this point I would like to stress the importance of time. It takes time to produce a stable tranquility. It is no good trying to rush things. It takes at least half an hour to prepare a patient properly for so-called bloodless surgery — to settle the reflexes and to bring the blood pressure at the operative site to a suitable stable level. The induction must be a gentle artistic seduction, not an anaesthetic rape, or we cannot hope to provide a bloodless field. And that takes time.

There are still two other aids to bloodless surgery which must be considered — Posture and Arterial Hypotension. But again, I would emphasize, these are relatively unimportant compared with tranquility and the low venous pressure it provides.

The advantages of using posture are self-evident. If the operative site is uppermost, blood will tend to drain away into dependent parts, particularly in the presence of vaso-dilatation, and bleeding will be reduced. This is not always possible, for example, in abdominal surgery, but on the limbs and head and neck it is always possible. For example: At Sir Archibald MacIndoe's plastic centre in England they seldom use a tourniquet for such operations a Dupuytren's contractive. The hand is placed on a raised table above the patient's body, and the surgeon stands on a dais to operate, in a virtually bloodless field.

Lastly, controlled arterial hypotension. By this I mean the deliberate reduction of systolic pressure to levels between 60-100 mm. Hg. A great deal has been written for and against arterial hypotension, but I do not propose to spend much time on it now, because you have seen that it is of relatively little importance compared with venous hypotension. However, there are occasions when it is useful particularly in radical surgery of the head and neck. When it is used, it must be employed with the greatest care and awareness of all the potential dangers, and the patient must be watched like a hawk.

Ganglionic or spinal blockade can be used to provide the vasodilatation upon which the technique is based. For surgery below the diaphragm I prefer continuous epidural blockade. For surgery of the head and neck good conditions are provided by drugs of the methonium group superimposed upon a background of chlorpromazine basal narcosis.

Some prefer the shorter-acting thiophanium derivative "Arfonad," but that is largely a matter of personal taste. Whatever method is used it is probably wise to raise the B.P. gradually during the first post-operative hours, so that freshly formed clots will not be blown off the ends of severed arterioles by sudden gusts of pressure.

The safe lower limit of systolic pressure is a matter for debate. It is obviously variable depending on the state of the patients' blood vessels. In severe arteriosclerosis *any* fall may be questionable, whereas a normal circulation can tolerate fairly profound reductions of pressure. The coronary and cerebral circulations are the ones that worry us most. Figures 3, 4 and 5 show some electroencephalographic recordings that were taken as an index of cerebral oxygenation during hypotension. Two normal conscious volunteers and an arteriosclerotic subject had their pressures lowered by means of pentamethonium, while continuous E.E.G. recordings were made⁴. The E.E.G. pattern is sensitive to degrees of cerebral oxygenation and any form of cerebral anoxia is immediately reflected by a change of electrical output of the brain.

The two normal volunteers showed no change of alpha rhythm down to 70 mm. Hg. systolic. In one the blood pressure would drop no lower despite an erect posture and large doses of C₆. In the other, (Case II) all went well until the pressure fell below 40 mm. Hg. systolic. Then the subject became unconscious and the normal alpha rhythm became replaced by large delta waves, indicating cerebral anoxia. On tipping him head-down, the B.P. and consciousness quickly returned, together with a normal alpha. Later he was tipped again, and 55 mm. Hg. appeared to be about the level at which the electrical energy of the brain began to fall off, as shown by the diminished amplitude of the alpha rhythm.

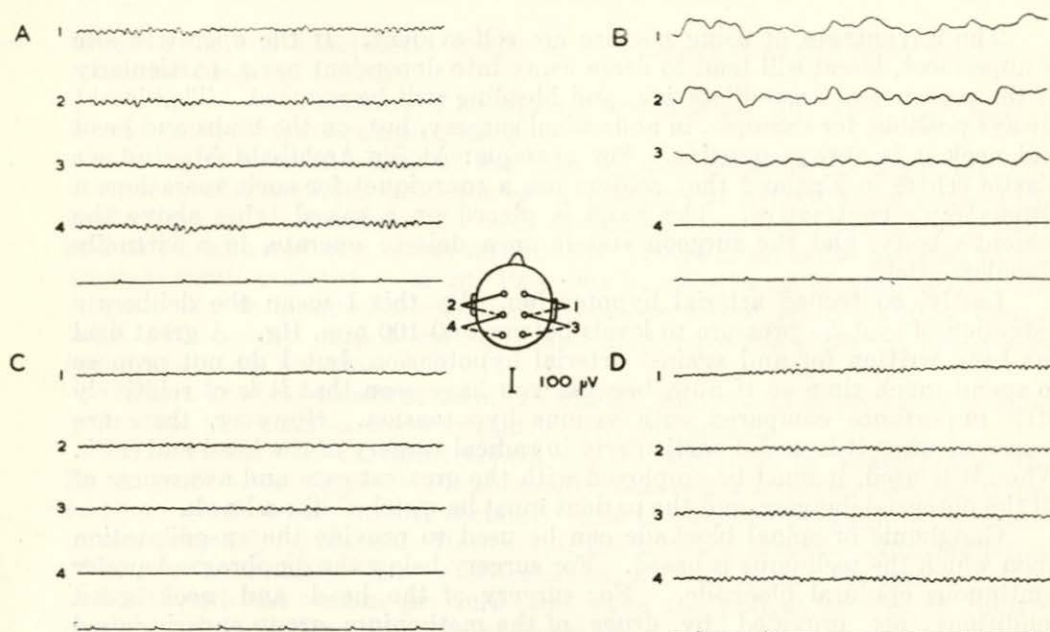


Fig. 3. (Case 11). — EEG records of normal man, aged 38. Time-marker: 1 second intervals. A, normal resting rhythm of 9 c/s. B.P. 130/80. B, During acute fall of B.P. to unrecordable levels, after 100 mg. C5 and 45 degrees foot-down tilt. Subject unconscious. C, one minute after B, 10 degrees head-down. B.P. 40/?. Consciousness returning. D, Four minutes after C. B.P. 105/70. Conscious. Normal a-rhythm. (Proc. R. Soc. Med., (1953), 46, 919, "Some electroencephalographic changes associated with induced vascular hypotension.")

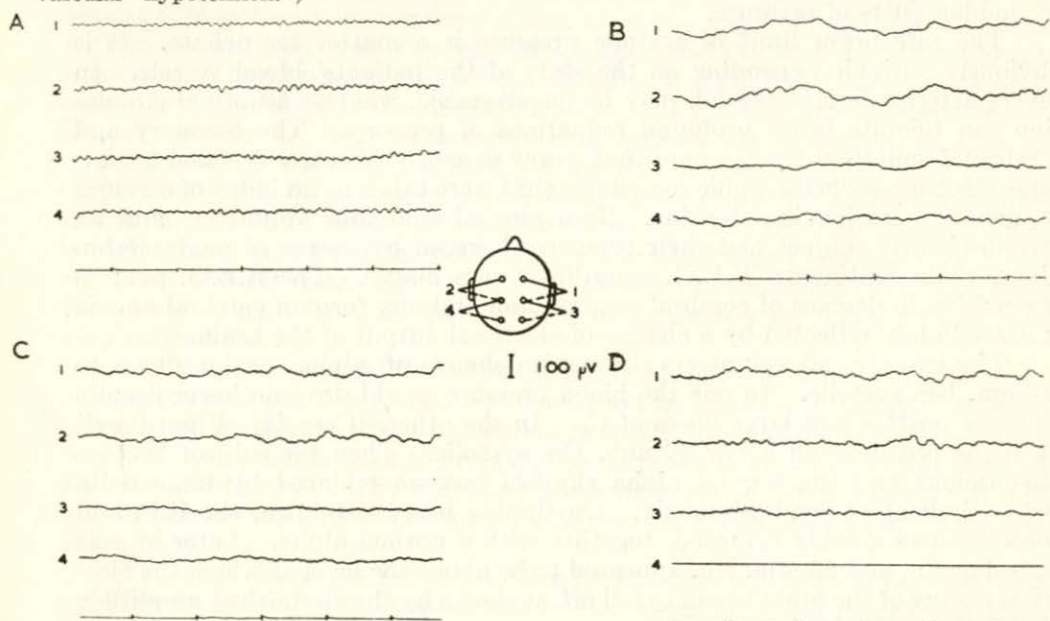


Fig. 4. (Case III). EEG records of arteriosclerotic man, aged 57. Time-marker one second intervals. A, Resting record. 7-8 c/s. B.P. 200/120. B, In 5-10 degrees foot-down tilt following 40 mg. C5. B.P. 35/? Subject unconscious. C, Ten minutes after B, in slight head-down position, breathing oxygen. B.P. 110/75. Consciousness returning. D, Fifteen minutes after C. B.P. 150/85. Conscious.

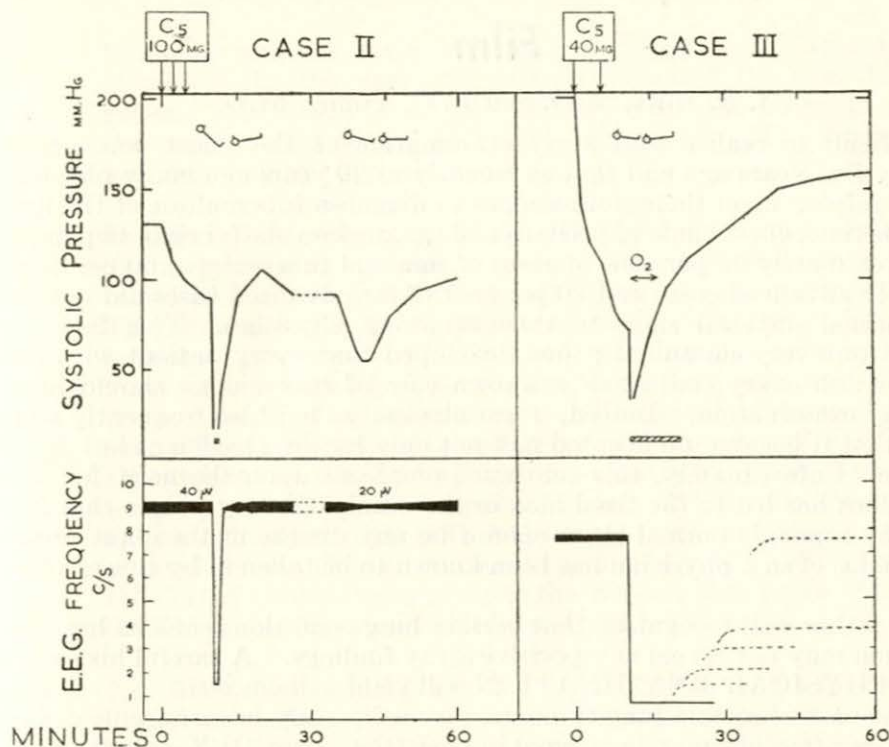


Fig. 5. Comparison of Case II and Case III. Line figures at top of chart represent degree of tilt. Hatched rectangles under B.P. curves show periods of unconsciousness. In Case II the amplitude of the alpha rhythm is represented by the thickness of the line.

In the arteriosclerotic subject (Case III) the sequence of events was very different. With systolic pressures down to 75 mm. Hg. there was no change of resting rhythm, but as the pressure passed the 55 mm. Hg. mark consciousness was suddenly lost and delta waves dominated the record. Moreover, this patient was very much longer in returning to normal — even after half an hour the resting rhythm had not fully returned.

In a normal subject, under light pentothal narcosis (when the cerebral metabolism is reduced by 30%) it is safe to lower the B.P. to 65 mm. Hg. systolic. In the arteriosclerotic I would not like to fix a definite figure, but a systolic pressure of 80 mm. Hg. has occurred to me to be a safe level up till now.

To Summarize —

In order to reduce blood loss, the all-important factor is tranquility with complete freedom from reflex disturbances, and the slightest impedence to respiration must be avoided at all costs. With these conditions fulfilled one may then add the refinements of posture and controlled arterial hypotension; but in the absence of a low venous pressure we are beating the air.

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Roentgen Thorax

The Inadequacy Of The Isolated Chest X-Ray Film *

J. E. Hiltz, M.D. and R. C. Young, M.D.

It is difficult to realize that x-ray examination of the chest was unusual thirty-five years ago and that as recently as 20 years ago many physicians were still relying upon their stethoscopes to diagnose tuberculosis of the lungs. About this time, chest clinic physicians and sanatorium staffs began to point out that approximately 90 per cent of cases of minimal tuberculosis, 60 per cent of moderately advanced cases and 20 per cent of far advanced cases did not yield any abnormal physical signs to the examining physician. This fact was impressed on everyone and the idea developed that every patient with chest symptoms and every contact of a known case of tuberculosis should have a chest x-ray examination. Indeed, it was stressed so hard, so frequently and so publicly that it became an accepted fact not only by the physicians but by the lay public. Unfortunately, this continued emphasis upon the need for x-ray examinations has led to the fixed idea in the minds of many people that if the chest x-ray report is normal there cannot be any disease of the chest present. On occasions, even a physician has been known to be taken in by this erroneous concept.

It is rather well recognized that certain lung conditions such as bronchitis and asthma may not reveal any positive x-ray findings. A careful history and a careful PHYSICAL EXAMINATION will yield a diagnosis.

In the case of certain lung tumours, especially early bronchogenic carcinoma, the x-ray findings may be normal but BRONCHOSCOPY, coupled with a careful HISTORY and possibly CYTOLOGICAL examination of the sputum will discover this condition.

In the search for pulmonary tuberculosis we are frequently led astray by a normal appearing x-ray film or by a chest x-ray which shows an apparently healed lesion that has not changed over the years. The following cases are cited briefly to indicate that a single chest x-ray film divorced from a history, chest examination, sputum examination and tuberculin testing may lead to overlooking or misdiagnosing significant tuberculous lesions of the chest.

Case 1 (No. 8366) Housewife, widow, aged 57. Husband died of tuberculosis in 1946. Son was admitted to Nova Scotia Sanatorium for treatment of pulmonary tuberculosis in 1948. About that time patient noticed some hoarseness of her voice. This was followed by what she called a persistent "cold." She was x-rayed locally and was told that her chest x-ray was *negative*. Some three months later she was sent to the Sanatorium outpatient department for assessment. The descending trunks on the right were accentuated and there were now some very slight parenchymal changes associated with them. SPUTUM EXAMINATIONS revealed numerous tubercle bacilli on direct smear. She was admitted to the Sanatorium for treatment. BRONCHOSCOPY revealed a tuberculous ulceration of the right upper lobe

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bronchus and the main bronchus, a tuberculous tracheobronchitis, Type II! In this case, the history indicated the need for investigation. SPUTUM EXAMINATION made the diagnosis and bronchoscopy confirmed the source of her trouble. The x-ray film was not very helpful.

Case 2 (No. 5644). Schoolgirl, aged 16. This young lady felt perfectly well. She accompanied a friend to a chest clinic and while there the Divisional Medical Health Officer talked her into having a chest x-ray. This showed some disease at the top of the right lung. The left lung appeared to be normal. Physical examination, however, revealed numerous moderately coarse rales over the lower half of the left chest. A bronchogram was done and revealed advanced bronchiectasis. The unsupported chest x-ray did not reveal this condition although it did lead to its ultimate discovery by indicating the presence of something in the opposite lung. If there had been no lesion at the right apex, this girl's left lung lesion would have gone undiscovered as she claimed to be symptom-free. PHYSICAL EXAMINATION would have given us the needed clue and a BRONCHOGRAM would have confirmed the diagnosis.

Case 3 (No. 9630). Schoolgirl, age 14. One brother had had tuberculosis five years earlier. One brother and one sister had had dry pleurisy 15 and 5 years previously respectively. In November 1955 the patient developed left-sided dry pleurisy and was treated at home for a few weeks. A chest x-ray was taken at that time and, apparently, was normal. In March 1956 she developed a small pleural effusion on the right. She was sent to the Sanatorium in June. Her x-ray at that time revealed few findings other than slight clouding over the right base and possibly some increased prominence of left hilus (remember dry pleurisy on the left the previous November). **Gastric lavage cultures** were positive for tubercle bacilli repeatedly and BRONCHOSCOPY revealed a granuloma on the wall of the left bronchus where a caseous hilar gland had ruptured into it. This was a tuberculous tracheobronchitis, Group A. It is highly probable that this condition existed the previous November. In this case, the history was most suggestive; sputum and gastric cultures were required to yield a definite diagnosis and bronchoscopy indicated the source of all her trouble. The ulceration of a tuberculous gland into a bronchus is not a rare condition but often cannot be demonstrated by x-ray examination.

Case 4 (No. 5214). Schoolgirl, age 19, on the basis of her first film was diagnosed as having something wrong with the lower lobes. A repeat examination later in the day revealed only that faulty technique in the taking of the original film had caused the trouble. The patient had breathed all the way *out* instead of *in* for the exposure.

Frequently *serial films* are required to arrive at a diagnosis. The first film may be misleading.

Case 5 (No. H561). Schoolgirl, aged 14, was sent to the Sanatorium outpatient clinic for assessment. She was symptom-free but x-ray examination revealed abnormal shadows over the apices. Re-examination a few days later revealed normal findings. The original shadows had been cast by her braids of hair which had been allowed to trail down over the apices of the lungs. Again, good technique is important and, again, serial x-ray examinations helped in ruling out the presence of disease.

Case 6 (No. 5517). Housewife, age 25. This Newfoundland woman had a brother who had been treated for tuberculosis. Her tuberculin test was positive. She felt ill with an acute respiratory upset on January 12th. By February 1st she had lost 20 pounds in weight, her appetite was poor, she had cough and a slight amount of sputum. She was referred to our outpatient department. Physical examination was normal but the chest x-ray revealed disease involving both lungs. Admission to the Sanatorium was advised for treatment of her tuberculosis. She was admitted on March 8th and x-ray of the chest revealed normal findings. The condition, of course, was a slowly resolving pneumonia. This turned out to be one of our most grateful patients. She was so happy to be told she did not have tuberculosis that she forgave us for not having asked for the second x-ray before admission. However, a serial or second film would have saved us some embarrassment.

Case 7 (No. J110). This 39 year old farmer lived next door to his tuberculous father. In November 1948 he was given a routine x-ray examination and a rounded lesion was seen in the right perihilar region. He was symptom-free. The tentative diagnosis was tuberculosis or malignancy. An x-ray a few weeks later revealed normal findings and a diagnosis of bronchopneumonia — resolved, established. Again, *serial films* were shown to be of prime importance before reaching a diagnosis.

Not only does the unsupported single chest x-ray film present us with problems in the sphere of differential diagnosis, the same problems occur in respect to determining the activity or inactivity of known cases of tuberculosis, especially when some permanent surgical therapeutic measure has been undertaken.

Case 8 (No. 6492). Male, aged 35. This patient, in spite of a left lower lobectomy in 1947, during the early days of pulmonary resection for tuberculosis, had a persisting positive sputum. The left lower lobe had been removed because it was completely destroyed. While searching for a cause of the persisting positive sputum, oblique films revealed a large cavity within the right hilus. This points up the importance of evaluating the sputum status in all cases of known tuberculosis even when the x-ray film may appear satisfactory. In investigation, the value of oblique films should not be overlooked.

- Case 9 (No. 8008).** This housewife and former graduate nurse, aged 38, was referred to the Sanatorium in January 1948 because the Divisional Medical Health Officer reported, "We cannot see any evidence of cavitation but her sputum is consistently positive for tubercle bacilli." She had previously undergone home treatment for her tuberculosis because she would not accept institutional care. On admission here, her sputum amounted to only about one teaspoonful daily but it was positive for tubercle bacilli on concentration. Her admission film did not reveal any definite cavitation but planigraphic series showed a very sizable cavity situated posteriorly in the right apex. This case, too, points up the need for sputum tests in evaluating apparently healed disease and also the value of planigrams in such a case.
- Case 10 (No. 7790).** Housewife, aged 24. Frequently, previous operative procedures or pleural exudate due to an old empyema may make it difficult to assess the stability of a patient's tuberculosis. This young woman had a previous thoracoplasty but cavity persisted. A revision operation was carried out but sputum remained positive. Although symptoms were few, a heavy penetration film was required to demonstrate a persisting pleural space, which, accompanied by a bronchopleural fistula, accounted for the positive sputum. The value of repeated sputum examinations cannot be overemphasized. Heavy penetration films to overcome dense tissues are sometimes required for diagnostic purposes.
- Case 11 (No. 4569).** This male, age 49, had been "on the cure" for thirty years, off and on. A right-sided thoracoplasty had been considered satisfactory as it apparently had closed a cavity within that apex. Sputum became positive after this apparent satisfactory thoracoplasty. Bronchoscopy was carried out and sputum was seen to be coming from the opposite apex. This was positive for tubercle bacilli and a special apical film, a lordotic by the Baum technique, revealed the presence of cavity. Here, again, the value of careful and repeated sputum tests is emphasized. The value of bronchoscopy in localizing lesions is evident and the inadequacy of the single flat film is pointed out.
- Case 12 (No. 4844)** Male aged 46. This patient had a thoracoplasty performed satisfactorily in 1943. Sputum converted to negative and he began work as an orderly in 1945. His sputum remained negative until 10 years later when it became positive. X-ray examination at this time did not show any appreciable change but bronchographic studies revealed bronchiectasis under the old thoracoplasty. This portion of the lung has now been resected. The point to be made, however, is that the search for positive sputum must be ceaseless. Five years or ten years or even twenty years with negative sputum cannot permit us to relax in our search for relapse and a possible source of danger to contacts.

SUMMARY: This paper is not a highly scientific or detailed presentation. It has been prepared in the hope of reminding all of us that to rely upon

a single x-ray film may be disastrous as far as patient or his family are concerned. It represents a plea for the clinic approach, wherever possible, as opposed to the simple chest x-ray survey in all situations where clinic facilities can be provided.

A carefully recorded history may strengthen the examiner's index of suspicion of the presence of disease. Sputum and gastric washing examinations are of paramount importance not only in diagnosing new cases of tuberculosis but especially in assessing the status of known cases.

The value of the tuberculin test in differential diagnosis has not been stressed but should be remembered. A negative test using the highest concentration of Old Tuberculin of P.P.D. will rule out the presence of tuberculosis in nearly every case.

A careful physical examination will, on occasions, reveal positive findings including rales and rhonchi even in the presence of a negative chest survey film.

When symptoms, physical signs or sputum findings are positive in the presence of a normal flat x-ray film of the chest it is necessary to consider additional means of investigation including bronchoscopy, bronchograms, planigrams, oblique and lateral chest film, or special techniques such as heavy penetration or special apical films. In all cases where a positive x-ray film indicates disease but the sputum is negative for tuberculosis, a second serial film is required before a diagnosis of tuberculosis can be entertained.

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Reflections On Medical History

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"Nous bénéficions aujourd'hui de l'effort accumulé des siècles"

OMER HEROUX

THE above translation can be translated in these terms: "We benefit to-day from the efforts accumulated through the years," an idea well expressed by a well known Journalist of Montreal, Omer Heroux, of international fame.

How true! The Greek have spoken; the Romans have written. Great thinkers have preceded our times and we have all benefited by their works; their principles, their theories, and their philosophy stored up in history. Not a day passed but this writer, Omer Heroux, has some reference to the past, to the "numerous efforts accumulated through the ages."

John Ruskin has on the subject some worthy comments. In his "Sesame and Lilies," he says that "there are two kinds of books; Books of the hour and books of all time: Good books of the hour and good books of all time. The books of the hour are simply the useful pleasant talk of some person whom you cannot otherwise converse with, printed for you. But the books of all time have been written in all ages by the greatest men, great readers, great statesmen, great thinkers, the chosen and the mighty of every place and time."

This is what we call History: A truthful narration of facts compiled by men who laboured incessantly and talked to us through their writings with a view of mere communication and permanence.

A good example was given to us not very long ago when Sir Geoffrey Keynes lectured on carcinoma of the breast. He exposed his views on the surgery of the breast regarding this condition; his technique as to use of Radium and Electro-therapy in these cases. With what precise judgment he dwelt upon the history of the cancer of the breast, enumerating the various authors who had written before him, laying special stress upon those who had made a real advance in this particular field and those authors whose remembrance had vanished. All of this lecture was given in a classical language. A long tradition and a great literary background characterized Sir Geoffrey's papers, particularly when he spoke on the "800 years in Surgery, St. Bartholomew's Hospital," London England.

Have we not something also of permanence in medical history? Have not also "accumulated efforts" of medical men been recorded in history? Men who have laboured also throughout the years and left to posterity an "heredity" of no uncommon merit.

The Greco-Roman period is rich in medical lore. The mediaeval period known as the "Dark Ages" has valuable records of the art of healing. The age of St. Thomas Aquinas was not an age of darkness but one of light. The 16th and 17th centuries were epochs of great intellectual progress in all domains. Our purpose is not to write at some length upon these various chapters of old and modern medical history but, as a simple student who desires to revive some immortal memories of the past, it is to write a few essays concerning those great men who have made Medicine what it is to-day.

medical history
and

Hippocrates

"Where is love for art,
There is love for man."

Hippocrates

In our preamble, we said that the history of the past was one of great value in laying down the foundation of our art Medicine; we intimated that the deeper we go in the past, the firmer we are in our endeavour to make our work one of endurance and permanence.

Hippocrates was born 460 B.C. at Cos in Greece during the height of the age of Pericles, a contemporary of Sophocles and Euripides, Aristophanes, Socrates and Plato, Herodotus and Thucydides. He lived at a time when Athenian democracy had attained the highest point of development. He received his early education from his father; studied at Athens and acquired extensive experience in travel and practice among the cities of Thrace, Thessaly and Macedonia.

Upon writing on the life of the "Father of Medicine" we may ask ourselves: In this age of utility and progress, what is the use to give remembrance to his name? He is lost in oblivion: What can he give us of practical use in our lives?

He has many precious gems on the very subject we are writing. The above quotation is one of them, and the principle we have laid special stress upon in our preamble is another, that is, "The physician must know what his predecessors have known if he does not wish to deceive both himself and others."

With what little Hippocrates had to study from those who came before him, we wonder how he was able to write as he did. His works on "prognosis," on "epidemic diseases," "on the diet of acute diseases," "on wounds of the head" on "dislocations, fractures, ulcers" are monuments of no uncommon merit" they have opened the way to true medicine.

During his time, Hippocrates did all that a man of genius could do for internal medicine with no other instrument of precision than an open mind and keen senses; and with these reservations, his best descriptions of disease are models of their kind to-day. To him, Medicine owes the art of clinical inspection and observation and he is above all the exemplar of that flexible, critical, well poised attitude of mind ever on the look-out for sources of error which is the very essence of the scientific approach to our every day problems. As Allbutt points out: "Hippocrates taught the Coan physicians that in relation to an internal malady like Empyema or Malarial fever, the basis of all real knowledge lies in the application of the inductive method; that 'grinding and rubbing in' which, better than the mere haphazard notation of symptoms, consists in going over them again and again until real values in the clinical picture begin to stand out of themselves."

Thus, instead of attributing disease to the Gods or other fantastic sources like his predecessors Hippocrates virtually founded that bedside method which



was employed with such signal ability by such men as Sydenham, Laenec, Bright, Addison and Charcot, to mention a few, and to-day by all of our modern physicians and surgeons.

The time of Hippocrates death is unknown, his age being variously given as anywhere from 85 to 109 years.

The Nova Scotia Rehabilitation Centre

A. H. Shears, M.D.*
Halifax, N. S.

The Nova Scotia Rehabilitation Centre is now functioning at 98A University Avenue in Halifax to provide service to disabled or handicapped individuals on referral from their family doctor. Pamphlets describing the Centre, its facilities available and to some degree its philosophy in treatment, have been sent to all licensed physicians in the Province of Nova Scotia whose names appear on the Nova Scotia Medical Registry. To some degree the information contained in those booklets will be repeated here.

Although handicapped and disabled individuals began receiving treatment at the Centre on August 1st, 1956, the Centre was not formally opened until January 14th, 1957. On that date the Hon. Richard A. Donahoe, Minister of Health for the Province of Nova Scotia cut the ceremonial ribbon and declared the institution officially established. Since first opening its doors in August 1956 the number of disabled or handicapped individuals being treated has increased steadily, so that we are now functioning at close to a full outpatient case load.

Although receiving generous assistance from Federal and Provincial Government Grants, the institution is not Government operated. It is operated by a central voluntary agency composed of twenty-nine member organizations and known as The Nova Scotia Rehabilitation Council, Inc.

The history of the Council is an interesting one, which in thesis form, has been recorded very accurately by a graduate student. Briefly it is this—As many as ten years ago private discussion between individuals and a few agencies began to sow the seeds that led to the growth and development of the Council. Many of these groups had been carrying out concrete rehabilitation programmes for their own members for many years.

Facilities. Based on medical evaluation of physical capacity, the Centre offers co-ordinated Physiotherapy, Occupational Therapy, Speech Therapy, Vocational Assessment, Vocational Guidance, Psychological Assessments, Social Service and invitation of Special Placement or Vocational Retraining.

Method of Referral. Crippled or handicapped persons may be referred directly to the Centre by a physician. They also may be referred by the Rehabilitation Assessment Team which has been established by the Provincial Government.

From time to time, the referring physician will receive progress reports and at the time of discharge will receive a summary of the patient's assessment, treatment and goal achieved. Indication will also be given as to what steps have been taken for placement and/or vocational retraining.

Some of the comments and questions asked about the Centre since its opening would indicate that the concept of a Rehabilitation Centre should be clarified. It has been generally agreed, by Agencies and by experts in the field of Rehabilitation Medicine, that, in order to be properly designated a Rehabilitation Centre, the institution should provide the staff and facilities to

*Medical Director

provide more than one aspect of the total rehabilitation requirement. It has also been pointed out that a Centre should be able to provide more than one approach in the treatment field and in the vocational field. This means that the Centre must not only provide physiotherapy or occupational therapy or speech therapy or vocational counselling, as the sole approach to the problem, but that two or more of these, preferably with at least one each from the treatment and vocational fields should be available if the institution is to be called a Rehabilitation Centre. The Nova Scotia Rehabilitation Centre meets these requirements in providing medically co-ordinated active rehabilitation facilities for the disabled and handicapped.

There are still a few problems which must be solved more fully in order to provide adequate rehabilitation service for patients from all parts of the Province. These problems are chiefly related to accommodation and transportation. They are not insurmountable and much progress has already been made in helping to solve them. It is hoped that within a year facilities will be added which will permit the early rehabilitation approach to the severely handicapped at the bedside; that is, provision of a modest in-patient service.

Society Meetings

LUNENBURG-QUEENS MEDICAL SOCIETY

The quarterly meeting of the Lunenburg-Queens Medical Society was held at the Fairview Hotel in Bridgewater, N. S., on January 7th, 1957.

This was in the form of a dinner meeting with Doctor R. G. A. Wood in the Chair and was combined with the final lectures of the Regional Refresher Course being held in this area. These lectures over the past several weeks have been largely attended by the doctors of this area.

R. M. ROWTER, M.D.,
Secretary-Treasurer.

Secretary's Page

Group Disability Insurance

Mr. Leo F. McKenna of Blaker, Hearn and Company writes that as of January 25, 1957, 218 applications have been received. Of these 200 have been issued and 18 are being processed. January 31, 1957, was the last day on which applications from **present** members of The Society will be accepted without evidence of insurability. **New** members will have 90 days (instead of 30) to make application without evidence of insurability after they become eligible through membership in The Society.

T.C.M.P. —C.M.A. Conference

A conference with C.M.A. was requested by T.C.M.P. in January. This Division was invited to send a representative. Doctor A. L. Sutherland, Sydney, who is also Chairman of the Divisional Committee on Medical Economics, accepted the invitation to represent us. Doctor A. G. MacLeod, Chairman of the Executive Committee, also was present, but as a representative of T.C.M.P. being on the Executive of that organization. The purpose of the conference was to discuss the experience received from the recently signed contract between T.C.M.P. and the non-operating railway employees. The local members of the Executive Committee held a meeting with Doctor Sutherland to discuss principles before he left for Toronto.

College of General Practice

Attention is again directed to the first Annual Scientific Convention of the College of General Practice to be held at the Sheraton Mount Royal Hotel, Montreal, March 4, 5, 6, 1957. All general practitioners are welcome.

1957 Annual Meeting—N. S. Division of C.M.A.

The Executive Secretary visited Digby during January for discussion with Doctor J. R. McCleave, President, Doctor D. E. Lewis, Chairman of the Programme Committee and Mr. Walker, Manager of The Pines Hotel. The programme for the Annual Meeting is taking shape, and will be of high standard. The dates are August 29th, 30th and 31st. The place, The Pines Hotel, Digby.

Brief Relative To Income Tax Deductions

An appeal to the Ministry of Finance to allow Income Tax Deductions for payments by self-employed physicians toward recognized Pension and Annuity Plans has been made by The C.M.A. in the form of a submission to the Honourable Minister of Finance. This brief was presented personally by representatives of The C.M.A. at which time a discussion took place. The brief submitted is printed elsewhere in the Bulletin. Copies have been sent to all Branch Societies and members of the Executive Committee with suggestions concerning follow up.

Income Tax Returns for 1956

"Dominion Income Tax returns by members of the medical profession" appears on Page 157 of the January 15, 1957, issue of The C.M.A. Journal. It is the text of a memorandum approved by the Department of National Revenue for the guidance of doctors making income tax returns relative to 1956. The reference is brought to attention for those who may wish to use it.

Civil Disaster

This Society has a Committee on Civil Disaster under the Chairmanship of Doctor A. R. Morton, Halifax. From time to time courses of instruction for physicians are conducted at Arnprior, Ontario, having to do with Civil Disaster. When notifications of such courses are received, it is difficult to select a physician who finds it convenient to attend. It will be appreciated if those who are interested in taking such a course would send their names to the Executive Secretary. The course lasts a week and expenses are paid. Advance notice of the dates of the course can be given. There is to be such a course from March 4th to 8th, inclusive.

Post-Graduate Activities

Your attention is drawn to the following:—

Majoring Haematology and Gastro-Intestinal Disorders. Visiting clinicians who will give lectures, conduct clinics and participate in round table discussions are Dr. A. H. Squires, of the University of Toronto in Haematology, and Dr. G. W. Halpenny of McGill University in Gastro-Intestinal Disorders.

Week in Medicine - March 25th - 29th, inclusive

Short Course in Psychiatry - April 8th, 9th, 10th

Week in Surgery - April 29th to May 3rd, inclusive

Dr. H. F. Mosely of McGill University will attend.

Details of the programmes will be in the mail approximately one month before the course.

Executive Committee Meeting

A meeting of the Executive Committee of The Medical Society of Nova Scotia will be held at the Dalhousie Health Clinic on Monday, March 18, 1957, starting at 9.00 a.m. The members of the Committee wish to have the agenda, reports and other matters in their hands for review not later than one week before the meeting. This means stencilling and distributing this material. It is therefore necessary that any items to be brought to the attention of the Executive Committee must be in the Secretary's office not later than March 1, 1957.

C.J.W.B.

Trans Canada Medical Plans

T.C.M.P. issued its first Newsletter in January 1957. It will appear every three months and carry information pertaining to this important organization and its work in relationship to some aspects of medical economics including prepaid medical services across Canada.

As its circulation is limited the Bulletin will publish such items as the Editorial Board considers to be of particular interest to members of the profession.

THE PURPOSE OF T.C.M.P.

What is Trans-Canada Medical Plans?

Why Was T.C.M.P. Established?

Because some of our readers may not know the answers to those questions, we publish the following excerpts from an address by '55 Chairman Dr. H. H. Lees at the 1955 Annual Meeting:

"In 1943 the Canadian Medical Association at its Annual Meeting stated: WHEREAS, the objects of the Canadian Medical Association are:

1. The promotion of health and prevention of disease;
2. The improvement of health services;
3. The performance of such other lawful things as are incidental or conclusive to the welfare of the public;

AND WHEREAS, the Canadian Medical Association is keenly conscious of the desirability of providing adequate health services to all the people of Canada;

AND WHEREAS, the Canadian Medical Association has for many years been studying plans for the securing of such health services;

THEREFORE, be it resolved that:

1. The Canadian Medical Association approves the adoption of the principle of health insurance;
2. The Canadian Medical Association favours a plan of health insurance which will secure the development and provision of the highest standard of health services, preventive and curative, if such a plan be fair both to the insured and to those rendering the services."

The record over the years following indicates the positive attitude and progressive action taken by Canada's doctors in sponsoring or supporting the establishment of these prepaid plans here represented today. Furthermore, the rapid public acceptance of all such programmes as they became established across the country soon made it evident they were fulfilling an important public need.

In 1949 the Canadian Medical Association approved a further statement in respect to health insurance of which the following is an excerpt;

"The Canadian Medical Association, having approved the adoption of the principle of health insurance and having demonstrated the practical application of this principle in the establishment of voluntary prepaid medical care plans, now proposes:

- (a) The establishment and/or extension of these plans to cover Canada;
- (b) The right of every Canadian citizen to insure under these Plans."

In the meantime, the various medically sponsored prepaid plans established in the different provinces and areas of the country, while splendidly equipped to perform their obligations at the local level, did not answer the need for a national co-ordinating body concerned with the overall development of planning on the national basis espoused by Canada's doctors. As early as 1947, therefore, the question was raised regarding the need for some national co-ordinating body.

Various ideas were canvassed, including the possible setting up of a single agency or super plan under federal charter.

However, by 1950, recognizing that the control of health services was primarily a provincial right as established by the B.N.A. Act; and recognizing further the diversity of problems existing across Canada by variations in the standards of health care, facilities, methods of practice, and general economic conditions in the different areas, and the wisdom of local responsibility and control insofar as possible in the solving of such problems; the pattern was finally agreed upon for the formation of a new body known as "Trans-Canada Medical Plans." Founded in 1951, this organization was established as the national co-ordinating agency of all the various individual member plans, sponsored by the profession across Canada, and had the following aims and objects:

- (a) To promote the operation and establishment of voluntary non-profit prepaid medical care plans in Canada to meet the health needs of the public generally;
- (b) To co-ordinate the activities, methods, procedures, coverage and data of voluntary non-profit prepaid medical care plans in Canada;
- (c) To prepare statistical or other information and to provide counsel or assistance to medical care plans and to the public in all matters pertaining to the provision of prepaid medical care on a voluntary non-profit basis;
- (d) To arrange for the provision of medical care on a national basis through the medium of voluntary, non-profit prepaid medical plans;
- (e) To assist in the development of an informed public opinion on matters of health.

After reciting a number of the developments which had taken place in T.C.M.P. over the intervening years, Dr. Lees went on to state:

WHAT OF THE FUTURE? Perhaps our first and most important problem is to continue our rapid expansion to meet the needs of those still presently uncovered, particularly among the rural population, the retired groups, the individual shopkeepers, and wherever else protection may be needed.

Our second problem must continue to be to bridge the gap between the advances in medical knowledge and the application of such to individual needs. These provide continually new horizons and the fact that increased life expectancy is resulting in an older population with increased medical care needs, makes our task of prepayment no easier. Increased research into this whole problem becomes increasingly necessary.

Finally, we must ensure efficient and economical operation to the public and in so doing trust that the great percentage of our citizens will come to appreciate these prepayment plans as public service agencies designed for their benefit in underwriting the cost of personal health needs.

In looking to the future there will be many adaptations of methods and variations of the original before we have found the most suitable programme of health services for our Canadian needs. The necessity to continue the planning, enthusiasm and contribution of many persons in many areas as exemplified in this present growth, represents an orderly evolution of development which will continue to provide more and more Canadian citizens with a mechanism for obtaining the finest medical and hospital care which our doctors and hospitals can furnish, and on a basis of individual right of decision.

Public Relations Corner

Mediation Committees

The Public Relations Committee is pleased to inaugurate a series of Bulletin releases with the aim of making us more public relations conscious. By and large we are quite satisfied with our own doctor-patient relationships and are inclined to be complacent about improving some oft repeated public relations misdemeanours. After all there are none so blind as those who refuse to look and see: and so it is with public relations. If we honestly examine the situation we have to admit that there are a number of areas where we are derelict and vulnerable.

In forthcoming Bulletin issues we plan to touch upon the main facets of public relations activity with the hope of conveying one message a month.

Let us discuss *Mediation Committees*—one of the activities in greatest need of attention. How does such a Committee function? Who are its personnel? What are the reports from other provinces on Mediation Committees? As the term suggests such a Committee mediates or attempts to arbitrate complaints from patients about doctors' services. In its most satisfactory form the Committee should represent a branch society in a given area, be small in number, not more than three to five members, be easily and readily mobilized to meet and hear complaints from people who think they have a grievance. Such a Committee should only be known to the profession, and its existence not be publicized. Request for Committee action may come from a doctor who knows he has a dissatisfied patient who is doing him and the profession a great deal of harm. Alternately, the request may come from an officer of the Branch Society who has received a complaint from a patient directly. Having received the complaint from either source the Committee arranges to meet the dissatisfied patient, listen to the story and mediate whenever possible.

The reports from Ontario on the success of Mediation Committees are very encouraging. The experience has been that a high percentage of the grievances are resolvable by the Committee. The majority of the complaints are of a not too serious nature, arising from misunderstanding in many cases. Claims of over-charging, alleged poor service were common. Needless to say Mediation Committees have found faults on both sides—unreasonableness by either patient or doctor.

The benefits from Mediation Committees may be listed briefly.

1. The complaining patient is given a hearing which in many cases is all that is necessary. A simple straightforward explanation can sometimes convert a dissatisfied derogatory complainer into an understanding individual.
2. This process eliminates the frequent claim of closed shop and inaccessibility of the profession in such matters. The Committee where possible will try at least to get the doctor to make adjustments where he has been at fault.
3. Complaints and misunderstandings are nipped in the bud before they become "talk of the town" issues and eventually reach the law courts.

F. J. B.

Income

Submission To The Honourable Minister Of Finance

The Canadian Medical Association and L'Association des Medecins de Langue Francaise du Canada, submit herewith a brief on behalf of the medical profession of this country in respect of an anomaly of the Income Tax Act. We refer to the position of the self-employed taxpayer respecting his personal contributions to annuities or other forms of retirement income. On several previous occasions, attention has been called to the favoured position of the participant in registered pension plans whereby he is afforded the advantage of tax deferment on his own and his employer's contributions. It is our belief that the time is now opportune to extend this privilege to members of the professions and other taxpayers who by the nature of their work have not been eligible for inclusion in registered pension plans.

We respectfully suggest that the situation of the practising physician is typical of that of many other self-employed taxpayers, but since we undertake to speak only for doctors, our argument will be confined to considerations which affect the medical profession.

We, of the medical profession, must take some responsibility for the extraordinary increase in longevity which has occurred within living memory and which is an important reason for the widespread concern in provision for retirement. Although doctors have not shared the increasing span of life to the degree which is applicable to the population generally, we do survive longer than our professional forbears and must consider means for support following our earning years.

The long and expensive education of a doctor at both undergraduate and graduate levels, results in his entry into gainful employment at a relatively late age. His earnings reach their maximum only after a period of years, they are briefly sustained and they decline in a manner which is related to his advancing age. A medical practice, laboriously built up, does not represent a capital asset which may be disposed of on death or retirement and the doctor's income is absolutely dependent on his personal efforts and ceases when he becomes incapacitated. None of these factors operate to this degree in the case of taxpayers employed in business and industry and, in sum, they constitute the essential reasons why members of the professions should be encouraged and aided in their efforts to build up a retirement income.

As citizens we share your concern at the present inflationary trends which reduce the real value of our currency. We suggest that the proposal which we are advancing would encourage saving and would act in some measure as a deterrent to further inflation.

Effective saving out of income is made increasingly difficult by the current high cost of living and the heavy load of taxation applied during the most productive years. Evidence is not lacking that economic uncertainty and the necessity of continuing to work beyond the usual retirement age is having an adverse effect on recruitment to the professions where self-employment is the rule. In the medical profession, particularly, the public interest will be served by removing one of the handicaps inherent in the present situation.

It is our understanding that one of the conditions for registration of a pension plan is that employer contribution to the fund must be made in addition to the tax-deferred employee contribution. It is further our understanding that more than four thousand such plans have been recognized and registered. In the case of self-employed persons, the element of employer contribution is, of course, lacking but it is our view that the self-employed taxpayer should be permitted to contribute the equivalent of both elements.

If in the interests of administration it is necessary to group self-employed doctor taxpayers into one or more registered pension plans, our Associations will give consideration to organizing such groups and to establishing either a trustee pension fund or a group deferred annuity contract. We observe with interest, however, that the 1956 Finance Act of the Parliament of Great Britain does not require the formation of such groups, but appears to confer on the taxpayer the right to select the deferred annuity which he prefers from among the policies which comply fully with the conditions of the Act. This is reminiscent of the compulsory savings provisions of wartime taxation and it is suggested that its application to contributions by the self-employed in Canada would not present insuperable administrative difficulties.

We recommend most urgently, then, that in justice and equity the self-employed taxpayers be granted tax deferment on their personal contributions to their own retirement funds. We suggest that the Income Tax Act be amended to give effect to this wholly desirable means of saving and that the following conditions be incorporated:

- (a) That the Department of Finance recognize and register retirement funds established, i) on the basis of a group contract provided by the relevant professional or other Association for its self-employed members, or ii) on the basis of the purchase by the self-employed taxpayer of a deferred annuity of approved type.
- (b) That the age or retirement and maturity of the contract be not earlier than 60 years nor later than 70 years.
- (c) That the benefits be taken as a pension for life or for a guaranteed number of years whether by the annuitant or his designated next-of-kin under a joint survivor option.
- (d) That the retirement policy be non-assignable and that it be not surrenderable for cash except with the occurrence of total and permanent disability.
- (e) That in the event of the death of the participant before reaching retirement age, return of premium and profits be made to his estate.
- (f) That the tax deferred contribution of the participant be up to 10 per cent of his gross earned income or \$3,000 per annum, whichever is the lesser. In the case of older entrants to the plan, these amounts should be increased by a factor which takes account of their age and diminished years of contribution before retirement.

It is unnecessary to elaborate further that self-employed taxpayers need the encouragement to make provision for retirement income which could be



provided by placing them on terms of equality with members of registered pension plans. We recommend most earnestly that appropriate action be no longer deferred and that at the coming session of Parliament, legislation be passed to amend the Income Tax Act to permit tax deferral on personal contributions to pension plans.

L'ASSOCIATION DES MEDECINS DE
LANGUE FRANCAISE DU CANADA
Par H. Trudel
Secrétaire-Trésorier Général

THE CANADIAN MEDICAL ASSOCIATION
Per R. M. Mitchell
Chairman, Income Tax Committee
A. D. Kelly
General Secretary

Royal College of Physicians and Surgeons of Canada

The following names of provincial interest have been taken from the list of successful candidates who took the examinations of the Royal College of Physicians and Surgeons in 1956. The Bulletin extends congratulations to the successful candidates.

FELLOWSHIP

- DOLAN, FREDERICK G., (Dal. 1951) Halifax, Fellowship in Surgery.
TUCKER, H. Harold, (Dal. 1951), Halifax, Fellowship in Surgery (Neuro-Surgery).

CERTIFICATION IN SPECIALTIES

- ANDERSON, THOMAS A., (Dal. 1943), Halifax, Anaesthesia.
RICHARDSON, ANNE B., (Dal. 1952), Royal Victoria Hospital, Montreal, Anaesthesia.
FITZGIBBON, HENRY, (Dublin 1940), Annapolis Royal, Obstetrics and Gynaecology.
GARDNER, PATRICK S., (London 1942), Glace Bay, Obstetrics and Gynaecology.
RAMSAY, E. LEIGH, (Dal. 1942), Moncton, N. B., Otolaryngology.
CROSBY, JOAN M., (Dal. 1951), Halifax, Paediatrics.
FITCH, RALPH HULL, (Dal. 1945), Moncton, N. B., Paediatrics.
JOY, CLIFTON JOSEPH, (Dal. 1948), St. John's, Nfld., Paediatrics.
SHEARS, ARTHUR H., (Dal. 1950), Halifax, Physical Medical and Rehabilitation.
EPSTEIN, NATHAN B., (Dal. 1948), Montreal, Quebec, Psychiatry.
WILLIAMS, JOHN G., (Dal. 1950), St. John's, Nfld., Psychiatry.
BRANNEN, RONALD E., (Dal. 1944), Toronto, Ontario, Diagnostic Radiology.
MACDONALD, F. ROBERT, (Dal. 1950), Royal Victoria Hospital, Montreal, Quebec, Diagnostic Radiology.
CROOK, ALFRED FRAZER, (Queen's Belfast, 1939), Victoria General Hospital, Halifax, Therapeutic Radiology.
FILKE, JOHN FRANCIS, (London, 1949), Victoria General Hospital, Halifax, Therapeutic Radiology.
BALMANNO, JAMES T., (Dal. 1949), Halifax, General Surgery.
DUNPHY, A. E., (McGill 1951), Antigonish, General Surgery.
MACKENZIE, DOUGLAS H. (Dal. 1947), Sydney, General Surgery.
ROSS, JAMES F., (Dal. 1951), Halifax, General Surgery.
TUCKER, H. HAROLD, (Dal. 1951), Halifax, General Surgery.
FITZGIBBON, HENRY, (Dublin 1940), Annapolis Royal, General Surgery.
GARDNER, PATRICK S., (London 1942), Glace Bay, General Surgery.

Citation For Honorary Membership In Canadian Public Health Association

Dr. H. B. Havey

HARRY BERNARD HAVEY entered the world in Freeport, Digby County, the son of Mrs. Havey and the late Bernard Havey, Justice of the Peace, onetime Warden of the County and for many years Stipendiary Magistrate for the Town of Digby.

As a young man he attended high school at Bridgetown and then went to Acadia University in Wolfville from which he graduated with a Bachelor of Arts degree in 1906. While there he was president of the Athenaeum Society and was also life president of his class. Following this he went to McGill University from which he graduated in medicine in the year 1911. Internships were held by him at the Montreal Homeopathic Hospital, Montreal Maternity Hospital and the General Public Hospital in Saint John, New Brunswick.

In 1912 Dr. Havey settled in Stewiacke and has been in practice there continuously for the past forty-four years. He is a member of The Canadian Medical Association and its Nova Scotia Branch. For several years he has been president of the Colchester-East Hants Medical Society and has been a member of the Provincial Medical Board for the past three years. He has been Medical Health Officer for the Town of Stewiacke for the past forty-three years and for the County of Colchester since 1943. He has been Physician for the Indian Agency and Indian Residential School at Shubenacadie since August 1, 1943, and Coroner for the County of Colchester since December 31, 1912.

He was elected a member of the Stewiacke Town Council in February 1919 and Mayor in February 1920; has been Mayor continuously since that time (among achievements in that period — enactment of a special Town Planning Act, followed by development of central parks; roads and streets first gravelled, later paved; erection of new Town Hall and Fire Station; reorganization of Fire Department; erection of new and larger school; with regard to at least two bond issues, he has had the unique experience of signing the bonds when they were issued and many years later signing the cheques which paid off the bonds on maturity).

He was onetime member of the executive of the Union of Nova Scotia Municipalities and was Liberal candidate (Colchester County) for the Nova Scotia Legislature in 1937.

He was Past President and is now Honorary President of the Colchester County Liberal Association and is Past President of Stewiacke Branch of the Canadian Red Cross Society.

He was Chairman of Building Committee for Stewiacke Baptist Church erected in 1924. He then was and still is a trustee of the said church.

He is a member of Truro Lodge No. 43 A.F. and A.M. and St. Andrew's Lodge No. 121, I.O.O.F.

To have filled so many civic and professional posts is a remarkable achievement in itself but to have filled them so creditably is worthy of our greatest admiration. As a token of our esteem the members of the Canadian Public Health Association, Atlantic Branch, take this opportunity to award to Dr. Havey a Membership Emeritus accompanied by the sincere wish that many years of health, happiness and service still lie ahead of him in his home and his province.

Defence Medical Association of Canada

The Nova Scotia Division of the Defence Medical Association of Canada, will be holding the annual Mess Dinner at 7.30 p.m., on 28th March, 1957, in the R.C.A.F. Officers' Mess, Anderson Square, Halifax, N. S.

A charge of \$6.00 per member is being made for this dinner and tickets may be obtained from:

Dr. Carl Stoddard, 106 Oxford Street.

Dr. Harris Miller, 14 Armcrescent West.

Dr. Wm. Murray, 324 Spring Garden Rd.

Practitioners throughout the province who have been in any of the three Services (Active or Reserve) are eligible for membership. If you wish to be placed on our mailing list write or call the Sec'y-Treasurer, (Harris Miller). Annual dues for the Association are \$3.00.

J. E. HARRIS MILLER, Sec'y-Treas.

New International Prizes For Family Physicians

A new series of prizes for family physicians of any country has been announced in London by B. D. Thornley, managing director of Benger Laboratories, British pharmaceutical firm.

The prizes total 500 pounds in value and will be known as the "Benger Prizes for Original Observations in General Practice." Entries will be judged by the awards committee of the British College of General Practitioners.

"The ideas or hunches which we are looking for may be concerned with the causation, diagnosis, treatment or prevention of any disease," Mr. Thornley said. All entries will be published and the book will be available to physicians everywhere.

"We hope that the physicians' ideas will prove a stimulus to medical research workers everywhere, whether in hospitals, special institutions or pharmaceutical companies like our own," Mr. Thornley continued.

"I believe that among the obscure and unassuming family doctors of the world there may be another Jenner or another Lind. I believe it although the experts say there is no great untapped reservoir of talent, in this country at any rate. I prefer to the statistics of the expert my own hunch that there are many doctors only waiting for an opportunity to put their own ideas, born of experience, at the service of humanity."

Entries may be in any form and of any length, all family physicians are eligible to participate, and manuscripts or correspondence should be addressed to Benger Laboratories, Ltd., Holmes Chapel, Cheshire, England.

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Personal Interest Notes

The former Dartmouth physician, Doctor Lester A. Rosere, has returned to his home to resume residence. For the past two years Doctor Rosere has been at the Manhattan State Hospital, New York, where he has been taking advanced studies in psychiatry.

Doctor H. C. Read has been appointed medical director of the Nova Scotia Division of the Canadian Red Cross Society Blood Transfusion Service.

Doctor Read studied haematology on a Nuffield Fellowship at Oxford and carried out further post-graduate studies in military hospitals under a Banting Research Grant. His new duties as medical director of the blood transfusion service will be part-time only. He will continue as Head of the Department of Haematology, Department of Medicine, Dalhousie University.

Doctor and Mrs. Arthur H. Shears have recently returned to Halifax from Boston.

Doctor Shears has been appointed Medical Director of the Nova Scotia Rehabilitation Centre situated on University Avenue, Halifax. He is a graduate of Dalhousie Medical School and had practised in Glace Bay for a time before undertaking post-graduate studies in Rehabilitation Medicine in Toronto and Boston. Doctor and Mrs. Shears have two children and have taken up residence on Beech Street.

Commissioner of Health Doctor A. R. Morton of Halifax has been named a member of the Royal Society of Health, a London, England, announcement said recently.

The Society is a similar organization to the Canadian Public Health Association of which Doctor Morton is a past president and the American Association of Public Health, an organization where Doctor Morton served as vice-president for several years.

PRACTITIONER WANTED

Elmida
Wanted immediately young medical practitioner to work with established general practitioner in a small Nova Scotia town. Please state age, marital status and qualification.

Apply to The Executive Secretary, The Medical Society of Nova Scotia, Dalhousie Public Health Clinic, Halifax, N. S.

Obituary

John Waters, B.Sc., M.B., Ch.B.

Dr. Waters, who had been in practice in the Judique — Port Hood area of Inverness Co., was killed in a head-on car collision early in the morning of December 2nd. whilst returning from a late call. A senseless accident, in which a truck which was racing a passenger car home from a dance struck the doctor's car head-on on the open highway, it caused the loss of a fine and conscientious general practitioner. This great loss, hard to bear by his immediate family, was also deeply felt by the community in which he worked.

John Waters was educated at Glasgow University. He taught Physiology for a time, and then practised in the East end of London. Later, he went to Dundee, Scotland, where he had a large practice. He joined the R.A.M.C. during the second World War, and served in the Middle East and Italy. On his return to Dundee after the War he found like many others that much of his practice had disappeared. He set out to build up his practice afresh, but was frustrated by the introduction of the National Health Service. With great courage, he set out at the age of 53 to establish his family in Canada. He was invited by the people of Judique to practise there, and there he found success and happiness, and also the satisfaction of being needed and well loved by his community.

He is survived by his wife, two young sons, Paul and Larry, the oldest son, Gavin is studying Engineering at McGill, a daughter Lynn, in final year Nursing in Montreal, and Colin, who has just started to work in the Bank at Port Hood.

Dr. Frank Gordon Mack, aged 68, passed away after a brief illness on Monday, January the twenty-first.

Dr. Mack was born in Bridgewater, N. S., and graduated from Dalhousie University in 1910 with a B. A. Degree. He received his Bachelor of Medicine from The University of Toronto in 1914.

Following post-graduate studies at Toronto and Montreal he was appointed Professor of Urology to the Victoria General Hospital in 1917. He retired in 1952 to be made Emeritus Professor.

Dr. Mack was a Fellow of the Royal College of Surgeons (Canada) and a Fellow of the American College of Surgeons. He was past President of the Halifax Medical Society and a life long member of St. Matthews United Church.

He is survived by his wife, Muriel, one son Dr. F. Gordon Mack of Halifax, three daughters, Margaret (Mrs. Henry Ross), Mary (Mrs. J. W. Spratt of Halifax and Barbara (Mrs. R. E. Durham) of Hamilton, Ontario.

AN APPRECIATION

It was my privilege to have known the late Dr. Frank Mack for a period of well over 35 years.

I first met him as a student in his class in the pre-clinical period of our course. He was an excellent teacher, preparing his lectures in that careful way that characterized all his efforts.

Later I served him as an interne, at which time I was able to observe his methods of handling cases with his thoroughness and excellent, clinical judgment.

He was always reserved in his relations with patients but all of them realized that their interests were paramount with him.

His surgery was meticulous and skillful and his results were good even though, in his early days, he worked without benefit of antibiotics.

Following graduation we found him an excellent consultant and his advice was always generously given.

In the loss of our friend the medical profession of Halifax and Nova Scotia lost a great scholar, a fine doctor and a real Christian gentleman.

E. T. GRANVILLE.

The death of Doctor Jemima (Mina) MacKenzie, M.D., C.M., LL.D., K.I.H., well known retired former medical missionary in India, occurred at her residence, 7 Marine Street, Pictou, at three p.m. on Sunday, January 27th, following an illness of one month. She was in her 85th year, and was a daughter of the late Simon and Anne (Murray) MacKenzie, and was born at Water-side, Pictou County.

The Bulletin extends sympathy to Doctor W. G. Colwell of Halifax on the death of his father, R. B. Colwell, on January 11th, at the age of eighty-five.