

Surgery And The Patient's Heart

THOMAS A. LEBBETTER, M.D., C.M., F.A.C.P.

Yarmouth, N. S.

IN the broad field of modern surgery, the evaluation of the patient's cardiovascular system plays a most vital role. Surgeons are constantly solicitous of the heart reserve of their patients. It is imperative then, from the standpoint of what constitutes a good, a fair, a bad, or an inoperable surgical risk, that both the operator and the one operated upon should have this information, for we have advanced a long way in the field of cardiology since the days when a hurried auscultation in the anaesthetizing room, constituted the sole means of estimating the surgical risk from a cardiac standpoint. And so, we should advance, when we realize that in the total population of the United States, one out of every five of its inhabitants who reach the age of ten years, dies from organic heart disease.

Many skillful operations have failed tragically because of a sudden post-operative fatality which might have been prevented by the knowledge beforehand of the cardiac disability present but unrecognized. Then too, the value of surgical interference in the presence of obvious heart damage must be evaluated by the fact that the length of time which he or she may be spared to enjoy the benefits of surgery, may, in the final analysis, be relatively short.

Briefly then, if there is present a cardiac disability, its appraisal is of the utmost significance and co-operation between the surgeon and physician is of paramount importance.

The modern concept of heart disease has changed many previously held views about things essential and non-essential in diseases of the heart. Murmurs are now considered, not from their presence alone, but from their type and characteristics. And while systolic murmurs are not normal findings, yet, the presence of most systolic murmurs do not indicate organic heart disease. We may have systolic murmurs from fever, anaemia, hyperactive hearts, hyperthyroidism, and following strenuous exercise. Furthermore, the most serious forms of heart disease may be present in the absence of all heart murmurs, e. g., congenital defects, hypertensive heart disease, luetic aortitis, the thyroid heart, coronary artery disease are examples of this.

The dictum of Sir James MacKenzie of "Not the murmur but the muscle", is worth calling to mind. Even the Army today accepts as a Class A recruit, one with an established systolic murmur, as long as the murmur is "a soft, constant, or inconsistent mitral or aortic systolic murmur of slight intensity".

Many of the conditions previously considered as serious heart disorders are now known never to have been serious and often not heart disorders at all. Myxoedema, thyrotoxicosis, anaemia, vitamin deficiency diseases, etc., are some examples of what we mean. This misconception or misinformation about their heart has frequently led patients to contemplate surgery or even a dental anaesthetic, with an apprehension not warranted by the presence of clinical

heart disease. And if some cardiac disorder does exist, its significance, unfortunately, has often been grossly over-emphasized. Every community has its boastful old codger who likes to relate to "all and sundry" how he has outlived the doctor who put him to bed years before with a "bad heart".

To the average layman there is a grave fear of the heart successfully withstanding an operation. This may be due partially to the fact that many deaths upon the operating table and many post-operative fatalities have been attributed inaccurately to a "bad heart". Post-mortem findings have cleared up a lot of these fallacies. True death occurs when the heart stops but the cause of its cessation is frequently found not to be related primarily to the heart.

If, then, your pre-operative examination reveals the presence of a heart malady, it is necessary for the surgeon to determine, right here and now, whether he is about to operate on a patient with heart disease alone or on one with heart failure. The former may be of no more than academic interest. It may be a mitral or aortic leak, an hypertrophy, ectopic beats, hypertensive heart disease, or a congenital abnormality. All of these are only of relative importance if considered as a yardstick to measure the degree of surgical risk. What, however, is important is the presence or absence of cardiac failure. And this, we determine, not by examining the heart but by examining the patient. And this can be determined by careful questioning and a thorough bedside examination. We need no detailed laboratory reports nor elaborate technical equipment to carry out this simple, practical, and very old clinical procedure.

(1) Is there any congestion or oedema either in the pulmonary or systemic circuit, or in both.

(2) Has she or he had previous attacks of nocturnal pulmonary oedema (cardiac asthma so called), a condition symptomatic not of bronchial asthma but of left sided heart failure.

(3) Or have symptoms of right sided heart failure been present in the past or are they now in evidence, such as dyspnoea, cyanosis, enlarged liver, oedema, (sacrum), orthopnoea, basal rales, distended veins, etc?

These signs of right heart failure produce the syndrome of cardiac insufficiency or congestive heart failure, in other words, failure of the heart as a pump. This information then, is much more valuable for the surgeon to know, than the recognition of an existing heart disease which might cause failure signs and symptoms, but so far, thanks to the Bon Dieu, has not. This central type of failure must not be misunderstood to imply the failure of the peripheral circulation. Failure, on the other hand, may be produced by such non-cardiac conditions as avitaminosis, emphysema, subacute bacterial endocarditis, constrictive pericarditis, hyperthyroidism, lues, etc. Once, then, we have settled the question of failure—either present now, or imminent, or having occurred in the past, the next thing to find out is the presence or absence of coronary artery insufficiency. How do we do this? Certainly not by wasting our time examining the patient's heart! Instead we carefully enquire about angina of effort attacks.

Unfortunately, there are no objective signs pathognomonic of this syndrome, but we can make a correct diagnosis if we spend the time to take a careful history. Here we should find a certain pattern of distress. "The pain of a given grade," as Lewis says, "recurs with the repetition of a particular act." It is pain caused by effort and relieved by rest or by nitrites, etc. Emotional upsets may be the precipitating factor. Or cold and exposure; or hurrying back

from lunch on a windy day; or by the excessive use of tobacco and alcohol. These, if the casual factors should produce a pattern of distress which makes for a correct diagnosis of the condition. There is a trigger factor and it is a constant one, and only by careful questioning can we obtain it, but when we do we can be right about our diagnosis. Then too, the family history is worth going into carefully. Osler said many years ago that in certain families, "the vascular tubing was of inferior quality". And it is worth mentioning that many cases of angina pectoris as well as coronary thrombosis occur in patients under forty years of age.

Recently I saw—A. C., a farmer, age 36, who had his first attack of substernal pain in October, 1940. This was a severe attack. He was taken with it while in church; was able to return home and after resting for three days, started to work again. Found himself unable to do heavy work on account of substernal discomfort. He called his physician for the first time in December and I saw him in consultation February 14th. He gave a definite history of previous attacks of angina of effort.

Physical examination of heart showed grade II systolic murmur at apex; accentuated A2; B. P. S. 140/100; no cardiac enlargement, and his electrocardiogram showed classical evidence of a recent posterior coronary infarction. He returned home and his physician tells me that he was found dead in bed four weeks later—age 36.

Therefore, once the diagnosis of an existing heart failure is established, it becomes imperative to institute treatment at once and clear this hazard away before taxing a failing heart with the added burden of a major surgical operation.

So for all practical purposes, what concerns the surgeon is how efficient or inefficient is his patient's heart. What is its functioning capacity? What is the condition of its reserves? How is it now? How much can it stand? And can this be told him? It certainly can.

Sir Thomas Lewis has said, "Of the numerous tests of cardiac efficiency and inefficiency that have been devised . . . there is none that approaches in delicacy the symptom breathlessness . . . for no patient possessing a normal capacity for bodily exercise has grave heart disease."

Then again, eliciting the presence of inspiratory basal rales takes very little time and is well worth the effort. Their presence signifies pulmonary congestion. The x-ray will give you additional information because with a failing right heart, increased hilar shadows are present. Often before any clinical symptoms show themselves, x-ray signs of pulmonary congestion can be found.

Statistics relative to the death rate following operations on cardiac patients vary widely, according to Fishberg:

In 170 patients with heart disease who underwent operations, Sprague found a mortality of 24.7%; in 494 operations on cardiacs, studied by Butler, Feeney & Levine, the mortality was 12.1%. According to the latter, 6.3% might not have occurred if the operation had not been carried out. This is significant for half of these patients died because of the cardiac condition present at the time of operation.

In view of these findings, it is imperative that the surgeon have the heart evaluated from the standpoint of its ability to withstand surgery. If heart disease is present the surgeon must know:

- (A) The heart's functional capacity.
- (B) The state of the coronary arteries.

If, then, heart failure is not present (and again let me repeat, there is a vast difference between heart disease and heart failure)—but a mitral lesion or an aortic leak, let us say, exists, the absence of signs of decompensation should not prejudice surgical interference.

Marvin has summed this up very appropriately when he says:

“A damaged heart, whatever its physical signs, is the equivalent of a normal heart, for anaesthesia and operation, if it is carrying on an adequate circulation under normal conditions of life, with the possible exception of the syphilitic heart” . . . or, to put this another way, no patient with a normal capacity for bodily exercise, can have grave heart disease.

The large number of patients in Nova Scotia with hypertension must always be remembered and while the well compensated hypertensive stands surgery well, there is increasing danger if renal insufficiency is present. The presence or absence of the latter can be rapidly and accurately determined by simple urinary concentration tests.

This test, when properly carried out, gives a great deal of information in a very short time. The patient may have his supper as usual, but thereafter and until 9 a. m. the following day, when the last specimen is passed, he is to have no food or drink. Discard all urine voided between supper and bedtime. At 7 a. m., while the patient still remains in bed, have him completely empty the bladder. Label, “Specimen No. 1”. Collect a similar specimen at 8 a. m. and label. Between 8 and 9 a. m. instruct the patient, if ambulatory, to get out of bed and walk about the room. At 9 a. m. obtain the third specimen and label. Should the patient be compelled to pass water between midnight and 7 a. m., keep this urine and add it to the 7 a. m. specimen.

If these specimens concentrate over 1020, there is no evidence of renal insufficiency. This test is specially adapted to the earliest stages of renal insufficiency and is positive before the phenolsulphonephthalein and excretion is impaired and before nitrogen retention occurs.

As Dr. Levine puts it,

“If a patient has hypertensive heart failure and shows bundle branch block, gallop rhythm, or pulsus alterans, it is better to temporize with a truss than to operate for an ordinary inguinal hernia . . . Removal of tonsils and teeth and procedures such as pelvic operations for prolapse of the uterus or a relaxed pelvic floor, may be avoided when contemplated in those suffering from grave heart disease.”

In making this decision, however, we must of course, distinguish between ordinary and grave heart disease, between heart disease per se, and heart failure present or imminent.

Every surgeon is familiar with the frequency with which heart disease manifests itself by acute abdominal symptoms. Let us consider three or four of the commonest, because they present confusing diagnostic problems. All clinicians agree that in the domain of the upper abdomen differentiation between extra and intra upper abdominal diseases presents extreme difficulties in diagnosis, and tragedy attends improper treatment. You can't hurry the death of an acute coronary much faster than by an operation for an abdominal emergency; you can't hurry the death of a patient with a ruptured abdominal viscus much faster than by treating him for a coronary attack.

Take children! . . . Now rheumatic fever occurs between 5—15 years. The abdominal pain which is such a common manifestation of rheumatic fever

among children simulates acute appendicitis or peritonitis. It is not, however, associated with nausea and vomiting, and the absence of these two symptoms together with a prolonged P-R interval in the electrocardiogram and an elevated erythrocytic sedimentation rate aids in the differentiation. Then too, the pericarditis of rheumatic fever (which occurs in 10—25% of these cases) may manifest itself by sudden acute abdominal pain, with nausea and vomiting. The x-ray and electrocardiogram provides additional information; so too does the presence of Ewarts sign and a friction rub.

Then, in adults we know that acute coronary infarction with epigastric pain, has only too often been mistaken for ruptured gastric ulcer, gall stones, acute pancreatitis, diaphragmatic hernia, etc. This sudden, severe pain localized in the epigastrium, with fever, nausea, vomiting and leucocytosis, calls for careful differentiation, and here the electrocardiogram clears up our doubts at once, for the pattern of an acute coronary is unmistakable.

Take the following instance—

Mrs. D. T.—obese, age 56, was taken acutely ill with nausea and vomiting at midnight while in bed on January 10th, 1940. In the morning she felt better and worked all day as a charwoman. Then again, next night while in bed she had a recurrence of this nausea and vomiting with severe epigastric pain. She was seen by a physician who considered it a gall bladder flare-up. Admitted January 12th to the Yarmouth Hospital.

Temperature 99.50—B. P. S. on admission 140/85. Had previously been 180.

Examination of heart:

Apex beat 5th i. c. s.

Rt. border: 2 c. m. outside m. s. l.

Lt. border: 9 c. m. outside m. s. l.

Heart sounds normal.

No murmurs—no thrills.

Rhythm regular, rate 70.

Here then, is an apparently normal heart and blood pressure. Certainly nothing alarming here. However, her sedimentation rate was greatly increased, 72 mm; her W. B. C. was 14,500. She had slight fever and her electrocardiogram showed the classical pattern of an acute anterior coronary infarction. She made a splendid recovery and at present, seventeen months after, appears quite fit and works every day.

Now we said this patient was obese and obesity is common to both gall bladder disease and heart affections, both have two things in common. The first is obesity, and second, they both appear after middle life. Therefore, it is particularly important that the condition of the heart should be thoroughly investigated in any candidate for gall bladder operation.

Then the possibility of embolic phenomena must be remembered. These emboli dislodged from either a sterile mural thrombus in the auricles or the ventricles may produce an emboli in the renal, splenic, or mesenteric arteries and the resulting clinical picture produces very confusing symptoms. The high W. B. C. ranging from 15 to 20,000 with a moderate degree of fever, and the presence of some form of chronic heart disease, such as mitral stenosis, auricular fibrillation, subacute bacterial endocarditis or a coronary infarction aids in the differential diagnosis.

Then again, the swelling of the liver as a result of passive congestion in beginning failure may produce sudden hepatic pain. This frequently occurs with right sided failure, the type that often accompanies the sudden onset of auricular fibrillation.

This acute liver pain resembles cholelithiasis, being localized in the epigastrium or in the right upper quadrant. It may radiate to the back, spine, or right shoulder. This patient splints his breathing like in pleurisy. Palpation of the liver may be disappointing. One may find the liver border only 1 or 2 c. m. below the costal margin.

By estimating the height of the venous pressure we can quite accurately say if congestive heart failure is present or imminent in these cases. And here again, the presence of basal rales and a vital capacity record may prove of valuable assistance.

Surgeons are often perturbed by the presence of an arrhythmia. Sometimes this is justified, but much more frequently it is not. Apart from a high degree of block, which, (unless due to toxic doses of digitalis), is generally a manifestation of advanced heart disease, and a paroxysmal ventricular tachycardia, apart from these two—none of the other irregularities are, as a rule, difficult to control either before, during, or following an operation. There is nearly always a history of previous bouts; patients know the sensation of an arrhythmia. Flutter, ectopic beats, bouts of paroxysmal auricular tachycardia, or the sudden onset of auricular fibrillation have caused them uneasiness before; so they know the sensation.

Therefore, their sudden occurrence on the table or following the operation should not come as a surprise to the enquiring surgeon nor should they occasion any great alarm. All can be diagnosed and controlled without much excitement.

Boiled down then—What the surgeon really needs to know is whether *he is or is not* about to operate on a patient in the presence of heart failure, luetic aortitis, coronary artery disease, or hypertensive heart disease with nephritic complications, and it should not take very long to give him this information.

Many surgeons are surprised to find that post-operative deaths have followed as a result of pulmonary complications. Many of these are unexpected for acute cor pulmonale, resulting as it does from complete plugging of the trunk of the pulmonary artery occurs with a sudden and tragic fatality. The first sitting up period after operation is often the time of its occurrence, but many others should be anticipated. The clinical picture in the non-fatal cases shows a combination of shock and engorgement of the venous system due to a failing right ventricle. It can be detected by the electrocardiogram as it presents a consistent pattern, entirely distinct from a coronary.

Clinically, while the sternal pain is agonizing, yet the dyspnoea is so overpowering and outstanding that it often alone makes the differentiation from a coronary occlusion clear. Then the extreme degree of venous engorgement, with cyanosis, plus the bloody sputum and rales aid materially. The emboli responsible usually emanates from the veins of the lower extremities and the pelvis. And because this condition may follow a bout of congestive heart failure or from the presence of mitral stenosis, the pre-operative diagnosis of these conditions is important in order to anticipate it.

Studies made by Aschoff show some of these pulmonary clots measuring 35 to 45 c. m. in length, and "the only vessel", he says, "which comes into play as a possible cause is the femoral vein". Therefore, the pre-operative examination of the veins of the lower extremities is always a wise foresight in bedridden patients. This should never be omitted in prostatic cases and in anticipated operations on the female pelvic organs.

Pulmonary embolism and infarction is easily missed particularly in the presence of congestive heart failure. It is equally often erroneously diagnosed as either pneumonia, heart failure, or coronary thrombosis. And the reason is that with pulmonary embolism we have pain in the chest, fever, leukocytosis, cyanosis, tachycardia, faintness, prostration, dyspnoea and even jaundice. It is missed because most of us are not on the lookout for it. The Massachusetts General Hospital figures show this up very clearly. Dr. Paul White says:

"My own experience is probably typical of that of many who have only in recent years begun to be on the lookout for pulmonary embolism. In 10 years from 1920 to 1930 I made an initial diagnosis of this condition either simulating or complicating heart disease in only 9 cases definitely and in only 7 cases questionably among 4,000 patients; while in the last decade among somewhat fewer patients (3,350) there were nearly 7 times as many such cases diagnosed (66 definite and 39 questionable).

"About one-third of my cases simulated and the remainder complicated heart disease. Of the former (28 in number) one-half (14) showed the signs of the acute cor pulmonale described by McGinn and myself in 1935, including characteristic electrocardiographic abnormalities. In most cases pulmonary embolism is either so mild or so rapidly fatal that such signs are not present or the patients are examined only after the height of the effect of the pulmonary arterial obstruction has passed."

At the Mayo's they found fatal pulmonary embolism had been preceded by one or more mild and atypical attacks. Because the electrocardiogram can identify these minor attacks—the importance of this procedure is obvious. Generally speaking, no elderly person with venous congestion should be considered as a good surgical risk.

In cardiac patients it is wise to avoid overloading the heart with too much intravenous infusions. Pulmonary oedema from an overtaxed right heart has frequently followed.

If then, we group heart disease in a general classification, we may say that from the standpoint of surgery, patients with heart disease do *surprisingly* well, and *extremely* well if we except those with kidney, coronary, luetic, or congestive failure complications.

Any cardiac patient with luetic aortic insufficiency, complete A/V block, aortic stenosis, or coronary artery disease, is tragically close to sudden death at all times, even when at rest and in apparently good health. The thread that holds the sword of Damocles suspended above him is thinning out with every beat of his heart. Why, then, unless the emergency is extreme, should we increase this hazard . . . for already for him the sands are rapidly running out.

And, while delayed surgery may terminate fatally, still it is equally sound judgment to withhold precipitate action if the end result is a live patient. It is sometimes better to let the cardiac keep a gall bladder (stone and all) than to swap the gall stone for a tombstone. For the first object of all treatment is to prevent death.

In conclusion let me say, if surgery must come to your patient, let it come then with the surgeon's full knowledge of how efficiently his patient's heart can withstand it, for, let me repeat, it is not the murmur but the muscle that is important; not the rate but the rhythm that counts; not the presence of heart disease but the absence of heart failure; not surgery because surgery is indicated; but surgery when this particular individual's heart is best prepared to withstand this extra load.

For if we eliminate congestive heart failure, angina pectoris, recent coronary infarction, luetic aortitis, and the very large and very rapid hearts, there are no hard and fast rules contra-indicating surgery. We know that big hearts are likely to do badly.

Every case presents its own individual evaluation problem. For whether the heart functions today or fails tomorrow is frequently a matter of diagnosis and therapy. We cannot, if we expect safe surgical results, neglect the one nor disregard the other. For nowhere perhaps in medicine, is one forced to use finer qualities of discriminating judgment than in estimating the degree of surgical risk. And always let us remember that too frequently, much too frequently, the heart is more sinned against than sinning. For one of the marvels of medicine is not that the heart has failed (as a result of disease and dysfunction), but that it has, for such a long period, been able so efficiently to carry on.

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*Three Troublesome Fractures

R. R. FITZGERALD, M. D.

Montreal, Quebec

BY common consent three fractures have long been considered the worst in the long list of skeletal injuries. These occur in the neck of the femur, the calcaneus, and the carpal navicular. But within the last few years even these disabling conditions have yielded ground before the steady development of surgical practice, and if we can copy the methods of the leaders in this work, and imitate their results, it will be necessary for us to nominate some other fracture to the dubious honour of being the worst in the body.

Our purpose today is to review the advances in the treatment of these three injuries, and to enquire into the possibilities of applying the newer methods in ordinary surgical practice.

THE NECK OF THE FEMUR

X-ray films of this injury in the antero-posterior direction alone give only incomplete information regarding the displacement of the fragments, but when a technique was developed for making films in a lateral plane, it was possible to recognize displacement and angulation unsuspected when only one view was available. Above all, we are now able to tell whether or not the fracture has been accurately reduced before fixation is attempted.

A second advance has been in the classification of fractures into three groups according to the angle of the fracture line across the neck when observed in an antero-posterior plane, with thigh in medial rotation.

When this angle is less than 30 degrees from an imaginary horizontal line, the fracture is impacted, the prospects of union are excellent, and only brief fixation in a short plaster, with knee and foot free, is necessary to obtain union. When examined in a lateral film, the neck in this injury always shows an angle open anteriorly. Only one in every twenty cervical fractures is of this type, but if the new x-ray methods have done nothing more, they have rendered a great service in separating out this particular kind of lesion, with its relatively gentle programme of therapy and its happy prognosis.

If the angle is between 30 degrees and 70 degrees we can hope for bony union in something like 90% of patients by using the tri-radiate stainless steel nail introduced by a "closed" method, as an internal splint.

The evolution of this operation has been a triumph of modern surgical progress. Although surgeons had long dreamed of an internal rigid splint in the femoral neck, and great ingenuity has been applied in the search for such a method, it remained for Smith-Petersen of Boston to point the way by devising a tri-radiate nail, and by using it with success. His "open" method was later amplified to the various "closed" procedures, in which a guide wire is first introduced through a small incision below the trochanter, penetrating the cortex and shaft of the femur, through the intertrochanteric region, up the centre of the neck of the distal fragment, across the accurately reduced fracture plane,

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up the centre of the neck in the proximal fragment, and deep into the centre of the head. The correct position of the guide wire is verified by antero-posterior and lateral x-ray films. A tri-radiate nail with a canal through its centre is slipped over the wire, and tapped into place with hammer blows.

The patient requires no external splint. Bed rest is necessary for three months. Sitting in a chair can then be permitted for three months more. Then a walking machine, or crutches, may be used for a third three-month period. It is the usual experience that at the end of nine months the patient may bear weight on the injured limb, and at the end of a year only a cane is required.

During the past four years, 15 such cases have come under my care. Three have been operated upon in the last four months, and the result cannot yet be estimated. Of the remaining 12, 10 have secured solid bony union, 8 of these have completely satisfactory painless function of the hip. Two cases were failures. In one the nail was too short and non-union resulted. This patient was later treated by osteotomy, and walks fairly well. A second failure occurred in a mentally deranged patient who could not be prevented from standing on the injured limb immediately after operation.

In two patients arthritis of the injured hip has detracted from the success of the result, in spite of solid bony union. Whether the arthritis is a consequence of the original trauma to the joint, or the presence of a foreign body, or of a combination of these agencies, is of little concern. All three seem to be beyond our control or repair, and must be accepted as necessary hazards.

In the third group of fractures, those in which the angle is 70 degrees or greater, the nailing requires supplementing with a bone graft and prolonged fixation before union can be expected.

[THE CALCANEUS

A badly broken heel bone, with displacement of the fragments, usually disables a workman for a year, and leaves a partial incapacity for life. But the less severe injuries are really minor affairs, and great steps forward have been taken in the classification of fractures of the calcis into two groups—the favourable ones (four types) in which early healing and complete recovery is to be expected by simple fixation, and the difficult ones (four groups) in which remodelling of the bone by operation, and prolonged fixation of the fragments transfixed by steel nails is necessary before union can be obtained, with a good arch and movable painless joints.

As in the femoral neck, so in the calcis, films must be taken in two or more planes to reveal the site of the displacements, and, above all, the damage to articular surfaces.

In the ordinary lateral film of the calcis one can draw two straight lines through the three highest points of the shadow cast by the bone, and these two straight lines make an angle of 40 degrees with each other if the bone is normal (the "salient" angle). But when the calcaneus is broken, and the talus sinks down toward the sole, this angle diminishes until, in the most severe cases, it becomes reversed. To reconstruct a crushed deformed calcis, this angle must be restored by mechanical traction methods, the lateral bulging of the walls of the bone must be squeezed together by a compression instrument, and the fragments of the bone must be transfixed with heavy nails, securely embedded in a plaster boot, and left in place for many weeks until solidification can come about.

The following classification is a useful one, because, once the type of lesion is recognized, the appropriate treatment is automatically suggested.

TYPE I

All treated by immobilization in a plaster boot until union is solid

Group 1. Duck-bill fracture of the upper surface.

“ 2. Tuberosity fractures.

“ 3. Sustentaculum tali fractures.

“ 4. Fractures through the body without distortion of the salient angle.

TYPE II

Group 5. Salient angle diminished, and lateral part of the posterior articular facet driven into the calcis.

“ 6. Salient angle diminished, and the whole of the posterior articular facet depressed.

“ 7. Group 6—with subluxation at the mid-tarsal joint.

“ 8. Group 6—with shattering of the anterior end of the calcaneus.

All treated by—

1. Driving a nail through the calcaneus.

2. Driving a second nail through the tibia.

3. Applying a “distracting” force by a mechanical apparatus attached to the two nails, until the salient angle is restored.

4. Applying lateral compression to the bone to squeeze its walls together until it has the same thickness as the calcis on the uninjured foot.

5. Embedding the foot, leg and protruding ends of the nails in plaster, allowing the plaster to set before the removal of the limb from the traction apparatus.

6. Allowing the plaster to remain in place for from 6 to 10 weeks until the arch is again restored by ossification of the remodelled calcis.

Here the films of the following three patients were presented to show the progress of badly comminuted heel bones under this method.

Case 1—Farmer— Group 5—Restored after 9 months to his work with 5% incapacity.

Case 2—Miner— Group 6—Back at mining in 6 months with 10% incapacity.

Case 3—Stevedore—Group 7—Working again without incapacity.

THE CARPAL NAVICULAR

If this fracture is recognized early, and splinted efficiently and uninterruptedly by encasing the forearm, wrist, carpus, metacarpus as far as the knuckle, and the thumb as far as the distal joint, in a non-padded plaster, union can always be expected. But we have had to learn from sad experience that recognition and splinting must be immediate. The least delay is dangerous, and we must be alert for the trap of the fractured bone that looks normal in the first films. All sprained wrists should have two x-ray examinations, one on the day

of injury, and one three weeks after splinting. Too often the neglected "sprain" becomes a beginning non-union after a month's interval, and many of us have gone through the experience of finding an obvious fracture with signs of non-union in a wrist that was pronounced normal when the first films were taken, although a magnifying glass may show a hair-line crack in the bone when the film is reviewed after the damage is done.

As an alternative to the prolonged fixation method, a great service has been done by Dr. Gordon Murray of Toronto by his work with bone graft for the carpal navicular fractures. A fine peg of tibial crest is driven into a hole drilled into the two fragments, and the period of disability cut down from months to weeks.

To think and speak of success is a pleasant thing, and there is some satisfaction to us all to feel that in reviewing the present developments in the case of the three worst fractures, we have "by taking thought added a cubit to our stature".

*Parathyroid Tumours and Hyperparathyroidism

G. S. FAHRNI, M. D.

Winnipeg, Manitoba

DR. FAHRNI'S remarks were confined to an abstract of the records of eight people suffering from this disease. After briefly stating the general character of the disease with its symptomatology and course, lantern slides were shown illustrating extensive decalcification of the skeleton which is usually present. Two cases represented multiple giant celled tumours which have been found to be not uncommon in this disease.

In the series there were two patients in each of whom two tumours were found.

Where a preoperative diagnosis of hyperparathyroidism has been made and no tumour palpable, the speaker stressed the importance of a thorough search of not only the suspected area of the neck but the mediastinum also. An embryological explanation was given for the comparatively common occurrence of parathyroid tumours in the mediastinum and an explanation was also given for one parathyroid tumour which was found entirely buried in the left lobe of the thyroid.

Two cases manifested stones in the kidney and the speaker closed by suggesting a careful serological investigation whenever decalcification of bones, either local or general, was found or where stone involved the urinary tract. He pointed out that in all cases at some time during the disease at least the serum calcium will be elevated and the serum phosphorous lowered.

*Résumé of Dr. Fahrni's paper presented at the annual meeting of the Medical Society of Nova Scotia, "Cornwallis Inn", Kentville, N. S., July 9, 1941.

Case Report

IDIOPATHIC GANGRENE OF THE SCROTUM

Now and then there occurs a case which seems worth reporting for its curiosity value, such as the one to be described here. It had never come to my attention that such a thing could occur, nor to that of the other doctors who have seen the case with me. It is possible that the condition, in this case, may have been secondary to influenza, but be that as it may it has been labeled Idiopathic.

A man of about twenty-five, previously healthy, had been ill for a few days. When seen he seemed to be suffering from influenza. His temperature was 104 and bronchial rhonchi were heard over the chest. He was treated with sulfathiazole and in a day or so his temperature came down and he felt better. But two days later for part of one night he had pain in the scrotum which, he says, was not very severe. On being seen a couple of days later nearly the whole of the scrotum was gangrenous. It sloughed, leaving the tunica vaginalis exposed.

The constitutional reaction was slight: pain was only moderate, the tongue was clean, appetite good, and the inguinal glands were only slightly enlarged. When the sloughing was completed there was a margin of an inch or more of the base of the scrotum remaining. Now, two weeks later, the raw area is well granulated and it seems that only time is required to complete the healing, although an attempt has been made to shorten the man's stay in hospital by drawing the skin edges toward one another with sutures. The rugose nature of the scrotal skin is helpful in providing new covering, and the end result will probably give quite a snug little repository for the testicles.

The patient affirms that he never had syphilis or gonorrhoea, and that he never had occasion to contract them. Kahn test and urethral smear were negative. A soft rubber catheter passed easily into the bladder. Urinalysis was negative.

The fact that the scrotum of a healthy young man can become gangrenous and slough causes one to ponder the cause further. This condition may have been influenzal. Dr. Chisholm of Springville had a case of influenza with gangrene of the phalanges of the fingers, but this was in an oldish woman. Chemotherapy. This man was treated with sulfathiazole, but in all he received only a dozen half-gram tablets. Gas gangrene, malignant oedema, phagedena, diabetic gangrene, and Raynaud's need only be considered to be dismissed. Cancrum or noma can affect the vulva in young children, but could not be considered here. Embolic gangrene. The blood-supply of the scrotum is bilateral, and both sides would not likely be plugged with no other part affected. It seems that the diagnosis is idiopathic gangrene—a surgical curiosity.

T. W. MACLEAN, M. D.

88th Annual Meeting of The Medical Society of Nova Scotia, 1941

FIRST BUSINESS MEETING

THE first general business meeting of the 88th annual meeting of the Medical Society of Nova Scotia was held at the "Cornwallis Inn", Kentville, N. S., on Wednesday, July 9, 1941, at 11.45 a.m.

The meeting was called to order by the President, Dr. A. B. Campbell.

The President advised that all the various items that were dealt with by the Executive would be published in the BULLETIN and that only the most important matters would be brought up at the present meeting.

It was moved by Dr. H. K. MacDonald and seconded by Dr. D. J. Mackenzie that the minutes of last year's meeting as published in the MEDICAL BULLETIN in September, 1940, be accepted as read. Carried.

The first communication was one from Dr. Routley of April 10th, as published in the Executive minutes re Industrial Medicine. It was moved by Dr. Eric W. Macdonald and seconded by Dr. H. K. MacDonald that the Canadian Medical Association, Nova Scotia Division, consider the scope of the Committee on Industrial Medicine of the Canadian Medical Association should be extended to cover all the provinces of Canada; also that a Committee on Industrial Medicine be formed in our Division. Carried.

The next letter was one from Dr. Routley of July 3rd advising that he had broken his arm and would not be able to be present, the action of the Executive being that we should send a letter of regret to Dr. Routley that he had had this injury and that we missed him very much here.

The next letter was from Dr. M. J. Macaulay, Secretary of the Cape Breton Medical Society asking the Society to go to Cape Breton next year. At the meeting of the Executive it was passed that this matter be referred to the Nominating Committee.

It was moved by Dr. G. F. MacAskill and seconded that this invitation be accepted. Carried.

The reports of the various standing committees had been dealt with by the Executive, but there were a number which were referred to the general meeting.

Dr. K. A. MacKenzie, Chairman of the Medical Museum Committee: "We have not received any contributions to our Museum this year. I would like to take this opportunity of asking the members of this Society to look up things, such as old instruments, and send them along. I am making an appeal now for a little more interest in collecting articles for our Museum."

Report of the Committee on Public Health.

To the Executive and Members of the
Canadian Medical Association
Nova Scotia Division

The chairman of your committee on Public Health apologizes for the fact that a report was not rendered in time to be presented at the annual meeting

which was held at Kentville on the 9th and 10th of July, 1941. The burden of the failure in this regard must be accepted by the chairman who desires to hereby present, on behalf of the committee, a brief belated report in order that the files of the Society may be maintained as completely as possible.

During the period 1940 to 1941 the usual public health problems presented themselves, some of which were accentuated due to the period of stress through which we are passing. Throughout the years it has been observed that following mobilization of forces certain communicable diseases, notably cerebrospinal meningitis, diphtheria, measles, mumps, tuberculosis and venereal diseases show a tendency to increase. During the present war this tendency has been evident although perhaps not so much so as in past ones.

In the fall of 1940 a sharp outbreak of diphtheria occurred in Halifax city and surrounding districts. From this area it spread to other parts of the province. The abnormal increase in shipping and the constant movement of a large proportion of the population naturally made the matter of control more difficult. In mapping out plans for control it was necessary to give consideration to war-time movements and the importance of as little interference as possible with national defence effort.

The appearance of this disease in epidemic proportions naturally stimulated interest in our weapons for the prevention of its spread. Toxoiding clinics were organized all over the province and many thousands were given the protection thus afforded. There was some disappointment in the response to immunization on the part of the public in the Halifax area. In the rest of the province the results were satisfactory. It is thought that the difficulties in Halifax will soon be overcome. A competent full time Commissioner of Health has been installed here and as soon as he is given the necessary trained personnel all will be well. In addition to the Health Officers very many of the medical practitioners throughout the province threw in their weight with a will. For this contribution, so nobly given, they are to be most heartily commended. In putting over the toxoid lesson the general practitioner and the medical specialist occupy unique positions, so much so that without their cooperation the whole programme will fail. A word of encouragement from those as they go about their work in the homes is worth ten times as much as the written word or the efforts of the orator.

Cerebral spinal meningitis appeared but it did not assume epidemic form in any given area. This disease has been robbed of its terror by the newer method of treatment. The results following Chemotherapy has been spectacular. Whereas the mortality from this disease in the last war was alarmingly high, in this one it has been low.

With the advent of war our efforts for the suppression of the venereal diseases were intensified. At the principal port in the province a special representation committee to aid in this connexion was named by the Hon. Dr. Davis, Minister of Health. In other sectors also the machinery was strengthened. Difficulties were naturally encountered in this the most difficult of public health problems. In the main it may be said that definite progress has been made. Many sources of infection were either rendered non-infectious or brought to justice. To those who gave of their time in this worthy cause we extend our thanks.

Tuberculosis is slowly but surely being conquered. Each succeeding year finds us in a more preferred position with respect to this disease. Both beds

for care and isolation and workers for prevention are on the increase, so that we look to the future with greater confidence than ever.

Sanitation has received due consideration. Water and milk supplies and sewage disposal have been given attention. This is as it should be in a province making a strong bid for summer visitors. The tourist is now sanitary conscious, consequently we must make our province a sanitary one. Our typhoid fever rate is low. This is satisfactory. It must be kept low. All cases of typhoid occurring have been intensely investigated as to source with excellent results. Practically all have been found due to carriers. Some 36 of these carriers have been discovered. After discovery these have given little trouble.

In retrospect we say much has been accomplished but much remains to be done. In the future development of the public health we look for and have every hope of procuring the sympathetic understanding and assistance of every member of the medical profession.

Respectfully submitted on behalf of the committee,

P. S. Campbell, M.D., Chairman

The Report of the Editorial Board Committee was read by the chairman, Dr. H. W. Schwartz, as published in the Executive minutes.

The president stated that the BULLETIN is probably one of our most important activities, the one thing that reaches everyone.

The Secretary advised that the Executive had received and adopted Dr. Schwartz's report, and voted the sum of \$150.00 to be paid to the trained workers who have compiled the index for the BULLETIN.

It was moved by Dr. H. W. Schwartz and seconded by Dr. P. S. Cochrane that the general meeting endorse the action of the Executive in giving directions to the Treasurer, Dr. Muir, to pay the sum of \$150.00 from the Contingent Fund to the trained workers on the completion of the index, as an honorarium. Carried.

The report of the Medical Economics Committee, as published in the Executive minutes, was read by the Secretary.

Dr. J. R. Corston: "Mr. President and gentlemen: speaking to this report to the Executive meeting yesterday I brought it to their attention that since that report was completed a very important development in the field of economics has come to light. Briefly, it was something to this effect. Early in June at Ottawa the Dominion Council of Health had its meeting; this is a statutory body consisting of some fifteen members. To this Dominion Council of Health meeting were invited a number of outside people and officials: Dr. Duncan Graham, President of the Canadian Medical Association; Dr. T. H. Leggett, Chairman of the Council of the Canadian Medical Association; Dr. Penfield, President of the Royal College of Physicians and Surgeons of Canada; Dr. Harvey Agnew, the Associate Secretary of the Canadian Medical Association; a representative of the Life Underwriter's Association, and others. At this meeting an important announcement was made by the Deputy Minister of Health, Dr. R. E. Wodehouse, to the effect that at the coming meeting of the Dominion Parliament there will be introduced a National Health Insurance Bill. I received this information more or less confidentially as a report to the Executive of the Canadian Medical Association. The representatives of the Canadian Medical Association felt it their duty to report to the Executive of the Canadian Medical Association, and I felt it my

duty to report it to you. The statement was that a bill will be introduced. As you are no doubt aware, the Canadian Medical Association has been studying this question of National Health Insurance for many years, and had laid down eighteen principles in number. At the moment we do not know whether this proposed bill embodies these principles or not. Dr. Wodehouse informed us that the Canadian Medical Association would have an opportunity of discussing this bill and presenting their views after the second reading. The Canadian Medical Association would have no opportunity to present their views before the drafting of the bill."

Dr. A. B. Campbell: "This is probably the most important matter which is to come up. In view of the report of Dr. Corston there does not appear to be much we can do at present, but the matter is open for discussion."

Dr. G. S. Fahrni: "This is a question of vital importance. I am very glad that Dr. Corston has brought this matter before the Association. It seems to be the big need of the hour. This matter has been sprung on us rather quickly. We have recognized that health insurance was coming, and the different divisions had tried to meet it. We did not feel that it was liable to be sprung so suddenly. I think one of the biggest things that hits us is the inference that Dr. Corston drew from the remarks of the Deputy Minister that we would be given an opportunity to discuss this bill and possibly criticize it only after the second reading. I think it is a tremendous challenge to us. In the letter to the officials which Dr. Corston mentioned, it stated that the Deputy Ministers of Public Health across the continent were invited; they are members of the medical profession. It would seem to me that it is the Departments of Public Health across the country who are trying to put this thing through. After talking to the Deputy Ministers it looks to me as if these people were going to try and cover the whole field. We have opposed for a number of years anything in the way of controlled medicine or the standardization of medicine. The very poor get along very well, the wealthy can pay, but the middle class find it very difficult. We recognize that and feel that health insurance is the answer. I was opposed to any form of health insurance up to six or seven years ago. It looks to me now as though it might be forced on us."

Dr. O. B. Keddy: "We should give this afternoon to the discussion of these matters instead of golf."

Dr. F. R. Davis: "In the first place I was very glad to hear Dr. Campbell's remarks in regard to the interest which is shown in public health matters. On the other hand, it would be very unfair to ask him to make a complete report on the activities of the Department. Each year we send out a report to each medical man. Everyone here will have some idea as to the activities we carry on. With regard to health insurance I am rather inclined to think we are going off half cock on this. Dr. Campbell attends the public health meetings at Ottawa, and was called up this year in the usual way. He did come back with the report that they were very much interested in the insurance scheme; they were working on it; they had called in the Canadian Medical Association officials and it was discussed, and the probability was that it might be legislated this fall, but nothing to indicate definitely that that was to take place. If the Government have done that, they have gone a long way towards taking that body into their confidence. I do not think there is a doubt but

that it will be a cooperative matter between the Government and the profession. I doubt very much whether it would be a good thing if this body did draft a health insurance act. There is definitely a need for secrecy in Government legislation. We can readily understand that. A bill is introduced as a Government measure after it has been reviewed and approved by the caucus of the House. Before that stage Dr. Wodehouse or no one else can say whether it will be given to the House this fall. There is no discussion until after the second reading and at that time only the principles of the bill can be discussed. You can argue for or against health insurance. Then it is sent to a committee. When a bill goes to the committee it is not a finished production. If this bill is introduced this fall and goes to a committee, it may come out in a form that you will hardly recognize. I am trying to look at it in an unbiased way. I think that the Government has been fair to the Canadian Medical Association in taking them in their confidence at this stage, and if they have given them the information that the bill is going to be introduced this fall, they have given them time to make up their case."

Dr. A. B. Campbell: "I think we are all grateful to Dr. Davis for speaking on this matter. This body is the Nova Scotia Division of the Canadian Medical Association, and our main function would be to back up any stand the Canadian Medical Association would take up in this matter."

Dr. Reid: "Could Dr. Corston give us any information as to what the Canadian Medical Association has done or is prepared to do."

Dr. J. R. Corston: "The Canadian Medical Association has been endeavouring to study this question for a considerable number of years, and as you will recall I mentioned the principles which were drawn up in 1934 and amended in 1937. In recent years, about two years ago, the Canadian Medical Association retained the services of Hugh Wolfenden, an actuary and consultant for the purpose of having his advice on the actual picture of health insurance. He has written twelve articles on health insurance which appeared in the Canadian Medical Association Journal during the last two years, and have been compiled in a booklet which is now available. At this recent meeting of the Canadian Medical Association as has been intimated, this subject was received with the greatest interest and considerable concern. The Association felt that it had very little to go on just now, as we have here this morning, and we have no bill to consider. The Canadian Medical Association appointed two of its members to act as its representatives in this matter and to receive such information as is available, these two representatives being Dr. Routley and Dr. Leggett. May I suggest this discussion should be kept from undue publicity."

Dr. J. G. B. Lynch: "In connexion with any legislation that goes before Parliament, the numerical strength of a body is very important to those who are going to present their case. Therefore, it behooves us to see that we increase our membership and make it a hundred per cent."

Dr. H. G. Grant: "Since hearing Dr. Davis speak and explain the usual Government procedure I do not know that I feel the way I did yesterday. With all due respects to the members of the Department of Health at Ottawa, I do not think they have anyone there who could of himself draft a health insurance act and I think they have consulted the literature of the Canadian Medical Association which has been quite extensive for a number of years. I think we should advise our Committee on Economics to keep in touch with

the Committee on Economics of the Canadian Medical Association to see that the views of the Canadian Medical Association are submitted to the Federal Government at the proper time."

Dr. A. B. Campbell: "The matter has been left by the Canadian Medical Association in the hands of Dr. Routley and Dr. Leggett. Is it the view of this Society that we should endorse their action and place such a motion as Dr. Grant has suggested?"

Dr. J. R. Corston: "I would move that our Committee on Economics be instructed to take note of such information as has come before us and to keep in close touch with the Medical Economics Committee of the Canadian Medical Association, and further to consider the distribution of Mr. Wolfenden's pamphlet among our members, and to take any other methods which may occur to them to increase the knowledge of our members regarding health insurance."

This was seconded by Dr. Dan Murray and carried.

Dr. A. B. Campbell presented the names of the Nominating Committee, Dr. Eric W. Macdonald, Chairman, Dr. A. McD. Morton, Dr. P. S. Cochrane, Dr. A. E. Blackett, and Dr. G. V. Burton.

The Financial Report, as published in the Executive Minutes, was presented by Dr. W. L. Muir. Dr. Muir moved the adoption of this report which was seconded by Dr. J. G. B. Lynch and carried.

It was moved by Dr. H. W. Schwartz and seconded that the general meeting concur in the action of the Executive regarding increased membership. Carried.

It was moved by Dr. H. W. Schwartz and seconded by Dr. O. B. Keddy that the expenses incurred in the collection of dues be shared by the Canadian Medical Association. Carried.

It was moved by Dr. W. L. Muir that the meeting adjourn at one o'clock.

SECOND BUSINESS MEETING

The second business meeting of the Medical Society of Nova Scotia was held on the morning of July 10, 1941, at the "Cornwallis Inn", Kentville, N. S. The meeting was called to order by the President.

The first item was the report of the Nominating Committee as given below.
Place of meeting, 1942, Sydney, N. S.

President, Dr. J. G. B. Lynch, Sydney.

1st Vice-President, Dr. W. A. Curry, Halifax.

2nd Vice-President, Dr. J. C. Wickwire, Liverpool.

Treasurer, Dr. W. L. Muir, Halifax.

Secretary, Dr. H. G. Grant, Halifax.

Legislative Committee, Dr. J. G. MacDougall, Halifax, Dr. G. H. Murphy, Halifax.

Editorial Committee, Dr. H. W. Schwartz, Dr. J. W. Reid and Dr. A. L. Murphy, all of Halifax.

Cancer Committee, Dr. S. R. Johnston and Dr. H. B. Atlee of Halifax and Dr. M. G. Tompkins of Dominion.

Public Health Committee, Dr. P. S. Campbell and Executive of the Nova Scotia Health Officers Association.

Insurance Committee, Dr. T. A. Lebbetter of Yarmouth; Dr. L. R. Morse of Lawrencetown and Dr. J. V. Graham of Halifax.

Historical Committee, Dr. H. L. Scammell and Dr. H. W. Schwartz of Halifax and Dr. T. C. Lockwood of Lockeport.

Workmen's Compensation Board, Dr. H. K. MacDonald of Halifax; Dr. J. J. Roy of Sydney, Dr. C. Miller of New Glasgow; Dr. J. H. L. Simpson of Springhill and Dr. D. K. Murray of Liverpool.

Medical Museum Committee, Dr. K. A. MacKenzie; Dr. H. L. Scammell and Dr. R. P. Smith, all of Halifax.

Cogswell Library Committee, Dr. J. R. Corston, Dr. A. L. Murphy and Dr. J. W. Reid, all of Halifax.

Medical Economics Committee, The Executive of the Medical Society of Nova Scotia.

Narcotic Drug Committee, Dr. F. V. Woodbury and Dr. C. W. Holland of Halifax and Dr. M. G. Burris of Dartmouth.

Industrial Medicine Committee, Dr. J. G. B. Lynch of Sydney; Dr. H. K. MacDonald of Halifax and Dr. S. W. Williamson of Yarmouth.

It was moved by Dr. Eric Macdonald and seconded by Dr. P. S. Cochrane that this report be adopted. The report was passed unanimously.

The only other business was the report of the Secretary which had not been read at the first business session, and which was published in the Executive minutes.

DOCTOR WANTED

For general practice in large town, with view to permanent location in partnership. Good salary offered. Apply to the Secretary.

Correspondence

184 College Street
Toronto 2, July 17, 1941

TO THE SECRETARIES OF DIVISIONS

Dear Doctor:

Re: War Benevolent Fund

At our Winnipeg meeting recently concluded, Doctor Wallace Wilson of Vancouver brought forward a suggestion which was received favourably by the General Council.

As we are all aware, many members of the medical profession in Great Britain have suffered loss of home, property and all material possessions by the destruction which comes from the air. To aid such victims, the British Medical Association has established a War Benevolent Fund. It was the feeling of our General Council that many members of the medical profession in Canada would be glad of an opportunity of subscribing to this fund. Already many hundreds of dollars have been subscribed in British Columbia.

Having in view the handling of the fund in a national way, the Canadian Medical Association is establishing a fund to be known as the Canadian Medical Association Fund in Support of the War Benevolent Fund of the British Medical Association.

All moneys shall be distributed at the direction of the Treasurer, War Benevolent Fund, British Medical Association.

Due publicity of the purposes of the fund will be made by the Editor in the Canadian Medical Association Journal.

The Honorary Treasurer of the Canadian Medical Association shall be appointed Honorary Treasurer of the fund.

Cheques should be made payable to the order of the fund and remitted to the Honorary Treasurer, Dr. D. Sclater Lewis, 3640 University Street, Montreal, Quebec.

The War Charities Board has been requested to grant permission for the fund to be established.

Each Division in the Association is now asked to take such steps as it sees proper to invite subscriptions to the fund. There can be no doubt that all of the financial assistance which we can send to our hard pressed medical brethren in Britain will be highly appreciated.

It is hoped that each Division will give this matter early consideration and attention.

Yours sincerely

T. C. ROUTLEY

General Secretary

TCR/T

184 College Street
Toronto 2, August 13, 1941

TO THE SECRETARIES OF DIVISIONS

Dear Doctor:

Re War Benevolent Fund

In further reference to my letter of July 17th, I am now in a position to send you the enclosed copy of letter and pamphlet from Dr. Anderson of the British Medical Association.

You will be interested to know that we have been duly registered by the Department of National War Services under the War Charities Act, which gives us the necessary authority to proceed to collect for this fund.

Yours sincerely

TCR/MN
Encl.

T. C. ROUTLEY
General Secretary

BRITISH MEDICAL ASSOCIATION

British Medical Association House
Tavistock Square
London, W. C. I.
July 31, 1941

AIR MAIL

My dear Routley:

I have your very kind letter of June 30th and greatly appreciate this fresh evidence of the magnificent generosity of our Canadian colleagues.

I am sending you a statement about the Medical War Relief Fund which will give you the necessary details. Although we have already raised a considerable sum—more than £30,000—the rate at which we are spending it suggests that much more will be required before the war is over. The figure I have had in mind as a first objective is £50,000, but it is impossible to set a limit as no one can foresee how much longer the war will last or how much more damage and loss of life it will cause. I ought to make it clear that if the money collected exceeds our requirements, the surplus will be distributed, at the discretion of the Committee, among the benevolent funds of the profession which deal with cases of distress in normal times. You may be sure that any surplus would be well used.

With grateful thanks and all good wishes,

Yours sincerely

(Signed) G. C. ANDERSON
Secretary

Dr. T. C. Routley
General Secretary
Canadian Medical Association
184 College Street
Toronto, Canada

DOCTORS HARD HIT BY THE WAR

Help from Medical Relief Fund

He was decorated for gallantry in the last war; and when an incendiary bomb set fire to his house some months ago, destroying his furniture, clothes, books, instruments, spare cash, and other possessions, Dr. A. could "take it", though the financial consequences were very serious. He is a general practitioner who has been carrying on under difficulties in a much-raided district from which many of his patients have departed. He bought the practice only a few years ago. His bank, which provided the necessary capital, holds his investments as security for the loan. He has found that rent, rates, taxes, bank interest, insurance premiums, and other expenses, professional and domestic, absorb almost the whole of his diminished war-time income. But Dr. A has been carrying on, paying his way.

When the bomb fell Dr. A. was determined to continue carrying on. But how to continue paying his way? There were vague reports in the Press about a proposed Government Bill to provide compensation for air-raid damage. At some remote date Dr. A. might perhaps be able to recover at least part of his loss. Meantime he had to pay for board and lodging for himself and his wife. And he urgently needed new clothes, new instruments, and a second-hand car.

Fortunately for Dr. A, the Medical War Relief Fund had recently been established. He seemed just the sort of man, involved in wartime misfortune through no fault of his own, that the Fund was designed to help. He was granted a substantial gift of money to provide for immediate needs, and in addition a loan which he is expected to repay, without interest, when he is in a position to do so. The Fund has received from him the following letter: "I am overwhelmed with gratitude and cannot express to your Committee the heartfelt thanks I wish to offer them. My case is probably typical of many others, but I have never been dealt with so kindly in all my life. I will now be able to buy some clothes, and I shall use the money to the very best advantage. I am enclosing a separate letter accepting your loan, free of interest, and I undertake to pay it back when I receive my next panel cheque. I may at some time probably be able to let you have the whole of this amount back, when more peaceful times arrive. For the moment I cannot say more than 'Thank you'. Your gift has cheered me up tremendously."

Dr. B is a comparatively young man who practises as a specialist. It was a high-explosive bomb that came his way, seriously damaging his house and wrecking his garage. His private practice has largely vanished. His children are at boarding schools and his educational expenses are heavy. He has a few National Savings Certificates, but most of his savings have been invested in life insurance policies. In acknowledging a loan from the Medical War Relief Fund Dr. B wrote: "I feel that my colleagues have come to my rescue in a noble manner, and the keen edge of anxiety is removed. I shall of course repay the loan when I am in a position to do so."

Dr. C is a man of advanced age with a small practice and correspondingly modest expenses. His income has been reduced owing to loss of patients through evacuation, while his expenses have temporarily increased as a result of his house having been seriously damaged by enemy action. This exceptional expenditure presented a difficult problem to a man of slender means who was just making ends meet. The Medical War Relief Fund has solved the problem with a gift which will tide Dr. C over the emergency.

Dr. D is a general practitioner in middle age. He has been handicapped by health troubles, but in the years immediately preceding the war his professional income increased steadily, and although his house was heavily mortgaged his financial affairs were not such as to cause alarm. He is a veteran of the last war, and in his circumstances many a man would have been content in September, 1939, to consolidate further his position in civilian practice, leaving the uniform of the R. A. M. C. to the younger generation. Not so Dr. D. He served in France, but after Dunkirk he was obliged to relinquish his commission on the ground of ill-health. Meantime the income from his practice had diminished, and there was an awkward interval between the date when his Army pay ceased and the date when professional accounts would become payable. He was in need of a considerable sum of money for current expenses and for the payment of pressing debts. The Medical War Relief Fund gave him the necessary amount, partly as a loan and partly as a gift, as it was thought that an obligation to repay the full sum would prove an unduly burdensome addition to his other commitments. Dr. D has written: "I wish to express my sincerest appreciation and thanks for your very generous gift and loan to enable me to re-establish myself in my practice after my discharge from the Army. I shall be refunding the loan at the very earliest opportunity to enable you to help others who may find themselves in my late predicament."

Dr. E, an elderly general practitioner, has given his life on the Home Front. The bomb which killed him destroyed his home and all his possessions. His reduced practice, situated in a relatively vulnerable area, is unsaleable. The Medical War Relief Fund could not undertake to contribute towards the maintenance of his widow for the remainder of her life, but it gave her a substantial sum to meet immediate necessities, and also assisted her to

obtain a very satisfactory pension from another organization. She has left the committee of the Fund in no doubt as to her gratitude.

Dr. F was killed by a bomb when on duty at a first-aid post. Other bombs damaged his residence and his surgery. The widow will receive a pension of £1 17s. 3d. a week from the Government, and there will be little addition to this even if it is possible to sell the practice when the surgery has been repaired. Mrs. F has no relatives who can assist her financially, and she cannot at present undertake remunerative work as there are children to be cared for. The Medical War Relief Fund has granted her a gift which will be paid in annual instalments over a period of five years. The money has been handed to the Royal Medical Benevolent Fund for administration, and this body will therefore be able to maintain contact with the family and advise Mrs. F if at a later date additional help is required for the completion of the children's education.

AIMS AND CONSTITUTION OF THE FUND

It might happen to any one of us, though we are not all exposed to equal risks. It would be good to know that there would be help for our wives and children if they should be numbered among the unfortunate; to know that our colleagues had created a fund to which they could appeal without humiliation, a fund which we ourselves had helped to establish, a fund that could come to the rescue in a manner worthy of a generous profession. It is to achieve this object that the Medical War Relief Fund has been instituted, and the above cases illustrate the work that is being done.

The purpose of the Fund is defined as the temporary assistance of registered medical practitioners and their dependents who find themselves in financial straits as a direct result of war conditions. Applicants must be "registered members of the medical profession, British subjects domiciled in England, Scotland, Wales, the Isle of Man, the Channel Islands, and Northern Ireland, and such of their dependents as the Committee may determine." Assistance takes the form of a gift or a loan free of interest, or may be given partly as a gift and partly as a loan. The Fund is administered by a Committee representative of the British Medical Association, the Royal Colleges, and the Royal Medical Benevolent Fund. The cost of administration is very small and it has not been necessary to acquire special office accommodation or to appoint a special staff. The Honorary Treasurer and Honorary Secretary of the Fund are officials of the British Medical Association and the cost of their work, which includes much correspondence connected with the collection of subscriptions is defrayed by the Association. A Distribution Subcommittee has been appointed to consider applications and vote awards. The Royal Medical Benevolent Fund was invited to nominate a number of the members of the Subcommittee, and the Secretary of that body acts as Secretary of the Subcommittee.

MORE SUPPORT NEEDED

The subscription lists already published show that many individual practitioners, B. M. A. Branches and Divisions, Local Medical War Committees, Local Medical and Panel Committees, and other professional organizations have responded to the appeal in a magnificent way. At the end of March, 1941, the contributions exceeded £20,000, and more than £4,000 had already been expended since the date of the first awards—that is, during a period of four and a half months. Further subscriptions will certainly be needed, for the number of applicants is increasing and will doubtless continue to increase as the war goes on. Every member of the profession is asked to send a contribution, however modest. Collections are being made in many areas, but any practitioner who has not received a local appeal may send his subscription to the Honorary Treasurer of the Medical War Relief Fund at B. M. A. House, Tavistock Square, W. C. 1. Cheques should be made payable to the Medical War Relief Fund. The latest list of contributions is published in the Supplement this week.

Doctors will not fail to discharge their responsibilities, whatever the risk, and it seems inevitable that many of them will suffer. Is it not both a duty and a privilege to ensure that in their hour of need they will be able to echo the words of one who has been helped by the Fund and say that they too are "proud of their profession"?

Society Meetings

VALLEY MEDICAL SOCIETY

THE thirty-fourth annual meeting of the Valley Medical Society was held at the Cornwallis Inn, Kentville, N. S., on July 10th, 1941. This meeting was held in conjunction with the annual meeting of the Medical Society of Nova Scotia.

Dr. V. D. Schaffner presided. Present were Drs. J. P. McGrath, A. B. Campbell, A. R. Chisholm, S. Bishop, L. E. Cogswell, J. E. Hiltz, G. R. Mahaney, O. B. Keddy, A. F. Miller, R. A. Moreash, L. A. Rosere and V. D. Schaffner.

Owing to the lateness of the hour the minutes of the last meeting were not read.

The meeting decided to donate the sum of \$25.00 to help defray expenses incurred through holding the annual meeting of the Medical Society of Nova Scotia in Kentville. This was moved by Dr. Miller and seconded by Dr. Hiltz.

A nominating committee was appointed from the chair. This committee was composed of Drs. McGrath, Campbell and Chisholm. This committee brought in the following slate of officers which was adopted by the meeting.

President—Dr. I. R. Sutherland, Annapolis Royal.

Vice-President, Digby—Dr. J. R. McCleave, Digby.

Vice-President, Annapolis—Dr. G. R. Mahaney, Bridgetown.

Vice-President, Kings—Dr. T. A. Kirkpatrick, Kentville.

Secretary-Treasurer—Dr. R. A. Moreash, Berwick.

Executive to the Medical Society of Nova Scotia—Dr. P. S. Cochrane, Wolfville and Dr. H. E. Kelley, Middleton.

It was decided to hold the semi-annual meeting at Annapolis.

On motion the meeting adjourned.

R. A. MOREASH, Secretary-Treasurer.

CAPE BRETON MEDICAL SOCIETY

THE Cape Breton Medical Society held a meeting on September 11th at the Glace Bay General Hospital. There were thirty members present and a most interesting evening was held. The programme for the evening was given by the Glace Bay doctors and was as follows—

Bacterial Endocarditis—Dr. Devereaux

Regional Ileitis—Dr. F. G. Macaskill

Wilms Tumor of Kidney—Dr. Calder

Orbital Cellulitis—Dr. L. Land

Prolapse of Rectum—Dr. M. G. Tompkins

M. J. MACAULAY, Secretary-Treasurer

Abstracts From Current Literature

THE PROBLEM OF RHEUMATISM AND ARTHRITIS. Editorial committee of The American Rheumatism Association. *Ann. Int. Med.*, 1941, 14: 1383-1448. Review of American and English Literature for 1939.

Treatment of Gonorrhoeal Arthritis with Sulfanilamide—Keefer and Rantz divided 14 cases of gonorrhoeal arthritis into three groups: (1) those of infected synovial fluid; (2) those of sterile synovial fluid; (3) those without effusions. They gave 4 to 5 gm. of sulfanilamide daily. Best results were obtained in group 1 (five cases); infected fluids were sterilized in three to seven days; despite this, damage to synovial membrane apparently delayed clinical recovery. (Those patients averaged the longest hospital stay). The four patients in group 2 recovered without articular disability or deformity. Treatment required an average stay in the hospital of 30 days in group 3 (five patients), as compared to 50 days in a similar hospitalized group in which the older methods of treatment were used. Keefer and Rantz noted (1) that concentrations of the drug were about equal in synovial fluid and blood, (2) that often, but not always, the local focus was clinically and culturally cured, (3) that synovial fluid cell counts diminished and fluid accumulated less rapidly than with other remedies, and (4) that sulfanilamide did not hinder formation of immune bodies.

The literature of the past three years indicates that best results have been obtained in the treatment of gonorrhoeal arthritis when large doses of sulfanilamide were given at regular intervals, day and night. The fluid intake should be kept constant (2,000 c. c.) and a blood level of 10 to 15 mg. per cent should be maintained. If there is no obvious improvement within 48 to 96 hours, the case is probably "sulfanilamide resistant" and will require some other form of therapy, (alone or in conjunction with sulfanilamide).

Reports concerned specifically with the treatment of gonorrhoeal arthritis with sulfapyridine did not appear in the literature reviewed. Certain workers advocated its use in sulfanilamide resistant cases.

In view of the value of sulfanilamide, fever therapy continues to play a subordinate role.

Several physicians considered the combined use of fever therapy with chemotherapy better than either alone and recommended this combination in cases of sulfanilamide-resistant gonorrhoeal arthritis.

RHEUMATIC FEVER

Cardiovascular Symptoms—Electrocardiographic studies were made in cases of inactive rheumatic heart disease. In 48 per-cent of 100 cases studied by Ritchie the auriculoventricular conduction time was greater than 0.19 second, or bundle branch block or partial a-v block was present. Rheumatic cardiac cases with persistently prolonged PR interval are much more likely to develop auricular fibrillation than those whose PR interval is normal.

Arthritis—Formerly it was thought that growing pains indicate rheumatic fever, but this is often not the case. Nonrheumatic pains of children tend to come on at the day's end, are in muscles of legs and thighs rather than in joints, seldom involve upper extremities, and are not associated with other signs of rheumatic activity or with abnormal sedimentation rate, leucocyte count or hemoglobin. These pains usually represent muscle fatigue from overactivity. The subsequent incidence of carditis in children with nonrheumatic "growing pains" is no greater than that in the general juvenile population.

Differential Diagnosis—One of the most useful diagnostic measures is the therapeutic test, the response of patients to adequate doses of salicylates. The differentiation between the so-called growing pains and mild rheumatic polyarthritis was already mentioned. Syngé emphasized the importance of considering systolic murmurs significant only when accompanied by a definite history of rheumatic fever, cardiac enlargement or diastolic murmurs. A specific test for rheumatic fever is badly needed. In the absence of such, the sedimentation rate of erythrocytes is the most delicate nonspecific index of rheumatic activity.

Etiology and Pathogenesis—It is generally agreed that infections, especially of the upper respiratory tract, commonly initiate rheumatic arthritis, but it is not agreed that such infections are specific provocatives.

Hemolytic Streptococci are considered the commonest provocative of the disease. Studying the significance of prolonged streptococcal antibody formation in rheumatic fever, Coburn and Pauli concluded that it indicated continued subclinical activity of hemolytic streptococci. In 8 out of 9 cases of rheumatic fever hemolytic streptococci were isolated by Green from gross lesions on cardiac valves but not from heart blood; in the ninth case streptococcus viridans was obtained. In 5 cases from the throat during life were isolated hemolytic streptococci serologically identical with those isolated from cardiac lesions after death. Collis obtained similar results in 17 fatal cases of rheumatic fever.

Factor of Bacterial Allergy—Green noted miniature rheumatic attacks which he considered allergic phenomena, following subcutaneous injections of hemolytic streptococcal endotoxin. He was prepared to admit that certain manifestations of rheumatism such as flitting joint pains may be attributed to allergy, but he could not believe that allergy alone can account for gross changes in tissue. Levinthal believed in an anaphylactic (not an allergic) mechanism underlying not only rheumatic fever but also various forms of arthritis and gout.

Relationship between Atrophic Arthritis and Other Diseases—Rheumatic Fever. English and American physicians are more likely to regard atrophic arthritis and rheumatic fever as separate entities than are Germans and Scandinavians, many of whom think that the two diseases have a common etiology and that atrophic arthritis often results from rheumatic fever. Regarding both as manifestations of allergy, Levinthal and Pagel consider them closely related. But after comparing the connective tissue reactions of the two diseases Collins noted enough differences to state "If experienced clinicians are prepared to dissociate, (the two diseases) the pathologist is not yet in a position to dispute them."

TREATMENT OF ATROPHIC ARTHRITIS

Management of Foci—Since the infectious theory remains unproved, since the removal of an infected focus is rarely the sole form of therapy and is only occasionally followed by prompt improvement, the whole matter remains controversial. The majority favor the removal of infected foci without delay unless the patient is seriously ill; some postpone removal until after a preliminary build up. Removal of foci is advocated as a measure to improve the patient's general health.

Vaccines, Antigens, Filtrates—Crowe and his colleagues continue to be enthusiastic advocates of vaccine therapy. Results with vaccines have disappointed most European physicians, who consider them nonspecific and relatively ineffective except as a form of psychotherapy. Tegner states after a survey of American and European Clinics "In the present state of our knowledge of rheumatism in general, and of rheumatoid arthritis in particular, the use of vaccines cannot be either endorsed or rejected. Results with foreign proteins were no better or no worse than those with specific vaccine.

Autohematotherapy.—Ishmael reported that autohematotherapy (10 to 20 c. c. of blood) reinforced with artificial fever, provoked complete remissions in all of 7 cases of juvenile Still's disease. Results in atrophic arthritis of adults were poor.

Chaulmoogra Oil—Unusual results, at times "truly astonishing" were reported by Stanley. Of 23 cases of atrophic arthritis thus treated results were "100 per cent complete relief" in almost 40 per cent (nine cases), marked (80 to 95 per cent) relief in 26 per cent (six cases,) moderate (50 to 75 per cent) relief in 17 per cent (four cases), less marked in the rest, (four cases). Patients received from one to 45 injections (each 1 to 5 c. c.) intramuscularly. Reactions lasting 24 hours were often produced. (Fever, headache, malaise, urticaria). Results were less notable in cases of mixed or hypertrophic arthritis. Sterile abscesses occurred in 8 per cent of the cases. The originator of this method of treatment has never made a second report upon it.

Bee Venom—Various types of acute and chronic arthritis were treated with bee venom by Ainlay, with "good results".

Vitamins—Chronic arthritics do frequently exhibit deficiencies of vitamins in their diets. Such deficiencies lessen resistance to infection, and infections apparently lessen utilization of vitamins. Hence diets adequate in vitamins are indicated in arthritis. Most physicians advocated the supplemental use of vitamins, in ordinary doses, especially cod liver oil and brewers yeast, but the value of vitamins in massive doses is unproved.

Farley noted marked relief from the use of massive doses (50,000 to 700,000 U. S. P. units daily) of Vitamin D (ertron), but he was almost alone in his enthusiasm.

Intestinal Therapy—Those few physicians who consider the reduction of intestinal toxicity possible and important approved the following: preparations of belladonna for colon spasm, paraffin oil, hot fomentations for constipation or diverticulosis, colonic irrigations, potassium permanganate enemas, etc. There is no satisfactory evidence that abnormalities and structural irregularities of the colon are the cause of the disease.

Endocrines.—The use of thyroid extract was advised for patients with low metabolic rates. Estrogenic hormones have been used in some cases accompanied by the menopausal syndrome with good results.

Sulphur Preparations.—Sulphur therapy rests on an elusive theoretical premise that the sulphur content of hair and nails is low in some arthritics. Colloidal sulphur given intravenously or intramuscularly has been used. After a review of the literature on the subject Comroe accorded Sulphurtherapy very faint praise.

Gold—Chrysotherapy has been approved in English, European, and American reports. Amenable for such therapy are cases of active atrophic arthritis with elevated sedimentation rates, but not inactive cases. Cases of ankylosing spondylitis were considered unsuitable for this treatment. The remedy is not helpful in hypertrophic or the specific arthritides or in fibrositis and is contraindicated for patients with atrophic arthritis who have or have had, hepatic or renal disease, hemorrhagic diathesis, anemia, ulcerative colitis, or chronic skin disease. Results: Marked improvement has occurred rather consistently in 60 to 70 per cent of English and European cases. American results have been less striking, either because of greater conservatism in their appraisal, or the tendency to use gold in fewer early and more late, resistant cases, or to use smaller, less toxic doses. Key treated 53 patients with myochrysin. The disease of only 6 per cent was arrested, 34 per cent of patients were improved markedly, 25 per cent moderately, the rest little or not at all. Snyder, Traeger and Kelley gave gold thiosulfate to 50 patients with these results:—2 per cent were cured, 10 per cent obtained "good", 36 per cent "fair", 52 per cent "poor" results.

Mode of Action—The mode of gold's action is not known; it may produce mild but prolonged shock therapy, stimulating reactions of toxins. It may be a catalytic stimulator of the reticuloendothelial system or the general defense mechanism. In normal animals gold is deposited in the cells of the parenchyma of many organs (liver, kidneys, spleen, bone marrow), but in animals with chronic infections, it is deposited almost entirely in the cells of the defensive reticuloendothelial system.

Chrysotherapy is not a cure-all nor should it be adopted as a general measure, according to Tegner. Because of its toxicity, it may not be here to stay, but when properly handled, it is a valuable method of treatment for ambulatory patients; it will often stop or notably affect the disease within 6 months. It should not be used to the exclusion of other measures. According to Goldie, every patient should be given the opportunity of benefitting from this treatment at the earliest stages.

Vasodilators (Histamine, choline), sulfanilamide, and bile salt therapy have very few advocates on account of poor results.

Rest and Physical Therapy are considered as routine treatment in this disease. The urgent necessity of supplementing professional physical therapy with home treatment was again stressed. A 30 or 40 minute baking or short wave treatments 3 times a week will cause very little increase in the circulation in the fingers, but if this is supplemented by home treatment with hot packs, heating lamps or other measures, much more adequate treatment is rendered. Massage and hydrotherapy are also included under the heading of physical therapy.

Roentgen Therapy—Scott again strongly recommended local and wide-field Roentgen therapy. In atrophic arthritis local irradiation was used for palliative purposes, widefield irradiation for its constitutional effects. After local irradiation, possibly 20 per cent do well but the number of unsatisfactory results is disconcerting. The effect is frequently delayed 2 or 3 months. Other appraisals of this therapy are pessimistic.

Fever Therapy—Reports on this treatment by various authors indicated poor results in arthritis.

Nonsurgical orthopedic methods.—The usual methods to prevent deformities and relieve muscle spasms are advocated.

Psychotherapy—Booth and Gordon regarded psychotherapy as an important adjunct to other remedies. The patient's recovery and freedom from relapses depend largely on the degree of his emotional stability and on the satisfactoriness of his philosophy of life. "Chase out the 'jitterbug' and other bugs won't find it nearly so easy to thrive." This can be done by altering his feelings of frustration through combined medicinal, physical and physiotherapy.

E. D. SHERMAN, M. D.

Sydney, N. S.

Yesterday

CIRCULAR No. 1

DIPHTHERIA

OFFICE OF THE BOARD OF HEALTH

Halifax, June, 1890

The following circular is issued for the purpose of more widely extending the knowledge of a few well attested facts concerning Diphtheria, and reminding all persons that greater care should be exercised to prevent the spread of this much-dreaded disease.

Diphtheria is contagious and infecticous, and may be easily communicated, either directly or indirectly, from person to person.

It may be conveyed directly in the act of kissing, coughing, spitting or sneezing, or indirectly by infected articles used as towels, napkins, handkerchiefs, &c.

The poison clings with great tenacity to rooms, houses, articles of furniture and clothing, and may occasion the disease, even after the lapse of months.

Diphtheria attacks all classes, at all ages, and at all seasons of the year. By preference it attacks children, and those who are debilitated from exposure to filth, dampness or foul air from whatever source.

When a case of Diphtheria occurs in any family, the sick person should be placed in a room apart from the other inmates of the house, and should be nursed, as far as possible by one person only.

The sick chamber should be well warmed, exposed to sunlight, and well aired; its furniture should be such as will permit of cleansing without injury, and all extra articles, such as window and table drapery, woollen carpets, upholstered furniture, and all hangings, should be removed from the room during sickness.

The physician and the nurse, as a rule, should be the only persons admitted to the room.

Visitors to the infected house should be warned of the presence of a dangerous disease therein, and children especially should not be admitted.

All clothing removed from the patient or the bed, should be at once placed in boiling water, or in a tub of disinfecting fluid (8 oz. Sulphate of Zinc, 1 oz. Carbolic Acid, and three gallons of Water) by the nurse before being carried through the house or handled by any other person. They may be soaked in this fluid for an hour, and then placed in boiling water for boiling.

It is better not to use handkerchiefs for cleansing the nostrils and mouth of the patient, but rather soft rags, which should be immediately thereafter burned.

All vessels for receiving the discharges of the patient should constantly contain some of the disinfecting fluid—4 oz. of Chloride of Zinc to a gallon of water will be effectual and without odor.

Water closets and privies in the house should be disinfected daily with a solution of Copperas—two pounds to a gallon of water.

Every kind and source of filth in and around the house should be thoroughly removed, and disinfectants freely used. Cleanliness tends both to prevent and mitigate the disease.

Children in the family should not attend school, nor mingle with other children until the patient has wholly recovered and all infected articles have been disinfected.

On the recovery or death of the patient the most thorough disinfection should follow. The room and all articles in it should be at once subjected to the fumes of burning Sulphur, as follows: close the room tightly and burn 2½ lbs. of Sulphur to each thousand cubic feet of space.

After from six to twenty-four hours, open the room and expose it to the air and sunlight for a week. Anything that can be boiled without injury may be so treated. The walls or ceilings should be dry rubbed or lime-washed and the floors and all wood work washed with soap and water, to which may be added a little Carbolic Acid.

When death occurs the body should be immediately placed in the coffin with disinfectants, and the coffin *tightly* and *finally* closed.

No public funeral should ever take place at the house where the patient died, nor elsewhere, unless the coffin remains securely sealed.

THOS. TRENAMAN, M.D.
City Medical Officer

Personal Interest Notes

DR. D. L. MACKINNON and family of Truro have returned from a summer holiday spent at his summer cottage at Lake Ainslie, C. B. A trip around the Cabot Trail was enjoyed before bidding farewell to his native county for another year.

Dr. R. M. Benvie of Stellarton was the guest speaker at the Truro Rotary Club on September 19th. Dr. Benvie's subject was a sketch of the life history of the man of the hour—Winston Churchill—and this biography was presented in the attractive and interesting way characteristic of Dr. Benvie. He delighted his audience.

Dr. and Mrs. J. B. Reid and daughter, Helen, of Truro recently visited Montreal where in addition to enjoying a holiday Dr. Reid spent a few days in clinical work at the Montreal General Hospital.

The marriage was solemnized on September 12th in King's College Chapel, Halifax, the Rev. Dr. A. Stanley Walker, President of King's College, officiating, of Eirene Margaret Walker, daughter of Mr. and Mrs. Richard T. Walker, and Surgeon Lieutenant-Commander Harvey Douglas Hebb, R.N.V.R., son of Mrs. Frances M. Hebb and the late W. E. Hebb, all of Halifax. Both bride and groom are graduates of Dalhousie University, the former in Arts and the latter in Medicine ('34).

The BULLETIN extends congratulations to Dr. and Mrs. G. D. Tulk (Dr. Helen Spurr), Bishop's Falls, Newfoundland, on the birth of a son, George Davey, on September 11th.

Dr. W. Arthur Young of Dingwall, N. S., has taken up residence in Hubbards where he has commenced to practise. Formerly physician for the National Gypsum Company at Dingwall he is a graduate of McGill, ('36). He also spent two years in post-graduate work in Bellevue Hospital, New York.

Dr. J. E. Hiltz, Assistant Superintendent at the Nova Scotia Sanatorium, Kentville, and Mrs. Hiltz recently enjoyed a holiday at Crystal Farm, Antigonish.

Dr. and Mrs. W. A. Hewat and daughters, Gretchen and Pat, of Lunenburg, recently enjoyed a holiday spent in Yarmouth and other Maritime towns.

Dr. O. R. Stone of Bridgetown is at present on a three week's trip, during which he will visit various hospitals in Montreal and Toronto, and will possibly go further West.

The marriage took place in Halifax on September 5th of Mary McIsaac, daughter of Mr. and Mrs. Roderick McIsaac of New Waterford to Dr. James Russell McLellan (Dal. '37), of Sydney son of Dr. and Mrs. J. A. McLellan of Sydney.

Thirty nurses were graduated from the Halifax Infirmary School of Nursing on September 18th at the Nova Scotian Hotel. The address to the graduates was given by Dr. T. B. Acker and Dr. J. V. Graham also spoke briefly.

Twenty-two nurses were graduated from the School of Nursing of the Victoria General Hospital at the commencement exercises held on September 4th at the Nurses' Residence. The Hon. F. R. Davis, M.D., Minister of Public Health, presented the diplomas. C. J. Burchell, K.C., recently appointed Canadian High Commissioner to Newfoundland, was chairman for the evening, and Major C. B. Smith, K.C., was the special speaker.

Obituary

TRURO has lost one of her most prominent and respected professional men and one of her best citizens in the death on September 6th of Dr. Charles Clifford Archibald, Eye, Ear, Nose and Throat specialist.

Dr. Archibald had been in failing health in recent years, but recently he left with his wife and daughter on a trip around the Gaspé Coast and a visit to his son in Montreal. On reaching Montreal he entered the hospital having been taken quite ill. In spite of expert medical attention, he did not rally but passed to his rest and reward.

Dr. Archibald was 63 years of age. He was born in Musquodoboit, but early in his life the family moved to Harmony, Colchester County. His early life was thus associated with that county and there he received his early education.

On graduating from Colchester Academy he entered Dalhousie University for his medical studies. After a successful course he graduated in 1902, and took up the practice of his chosen profession first in Labrador. After that he removed to Bear River, N. S.

It was while he was in Bear River that the Great War of 1914-18 broke out and he answered the call of his country and enlisted in the Army Medical Corps.

When that war ended, having taken a course fitting him to specialize in Eye, Ear, Nose and Throat, he began this specialized practice in Charlottetown, where he served with success for sixteen years.

In December, 1934, he removed to Truro where many old friends gave him a hearty welcome.

Dr. Archibald in his life time was associated with many good causes. He was a great churchman. The cause of christianity always received his sincere and enthusiastic attention. The work among the young as represented by the Sunday School and Boy Scout activities enlisted his intelligent and expert interest. In Trinity United Church, Charlottetown, he was a tower of strength to the whole cause of the church and the same applied in Truro. There he served as superintendent of the Sunday School of First United Church until failing health compelled him to relinquish that post.

He is survived by his wife, one daughter, Muriel, who has been Superintendent of Nurses at Springhill Hospital, and one son, Manning, an electrical engineer engaged with a firm in Montreal. He is also survived by three brothers, Richard of Hantsport, N. S., Dr. Eben of Vancouver, B. C., and George of Halifax, and by a sister-in-law, Mrs. McLintock, who made her home in recent years with the Archibalds and who was the doctor's office assistant.

The funeral service was held in First United Church, Truro, on Tuesday, September 9th, at 2.30 p.m., conducted by the minister, Rev. W. McN. Matthews, and under Masonic auspices.

The following is part of an appreciation written by Rev. Mr. Matthews.

"Dr. Archibald was more than a professional man. He was one who

had very high ideals of human conduct and high ethical standards in his profession. He was a friendly man in the best sense of that term. He was interested in human beings.

"Now that he is gone, there are multitudes who mourn his passing. Many, many hundreds of lives were made better because of his services. They are glad that he passed their way and, under the Divine Healer, he was used to cure some of their ills. There are many people who thank God because he was used to enable them to see better. Not only did he enable them to see physically, but he helped them to see spiritually.

"In his passing, a fine spirit has been called to higher service and in the places that knew his activities he will be greatly missed. But the many who knew his works and his worth will thank God that such a man was loaned to earth for a brief space—even less than man's 'allotted span'."

Dr. William Roderick Dunbar, former mayor of Truro and medical practitioner there for forty years, died at the home of his sister, Mrs. Alexander Wilson, in New Glasgow on September 12th. Death followed an illness extending over the last two years.

The doctor was widely known in his native county, his adopted town and throughout the province. He was possessed of a friendly nature, was an active churchman ever interested in the welfare of his profession, took an active part in various fraternities and had a special flare for public life.

He was born in Abercrombie, Pietou County, seventy-one years ago. He studied medicine at McGill, graduating in 1897, and moved to Truro 45 years ago, shortly after his graduation. The doctor became very much a part of the town of Truro. His fellow citizens honoured him with six terms in the Mayor's chair. He served in that capacity in 1917, 1918, and then from 1926 to 1929 inclusive. He was chairman of the Truro Electric Commission, served on the Truro School Board, was President of the Truro Board of Trade and the Maritime Board of Trade as well as being President of the Medical Society of Nova Scotia, 1931-32, and at the time of his death was an honorary member of that Society. He was greatly interested in the Masonic and Orange orders and held high rank in both. He was Past Master of Truro Lodge No. 43 A.L. and A.; Past High Priest of Keith Chapter No. 4 Royal Arch Masons; Past Preceptor of Malta Preceptory No. 27 Knights Templar; a former member of Philae Temple A.A. D.N.M.S. He was Past Grand King, Grand Chapter of N.G., Past Provincial Grand Prior of Knights Templar in Nova Scotia and Prince Edward Island.

Twice he ran for the provincial legislature, the first time in the general election of 1908 teamed with Robert Kennedy and then again in 1928 with Dr. D. L. MacKinnon as his running mate.

Dr. Dunbar was a highly valued member of the United Church. He was elected an elder of First United Church in 1934 and held office up to the time of his passing.

The deceased was active until two years ago when he took ill and was forced to retire from professional life. He returned to his native county and made his home with his sister, Mrs. Alexander Wilson, where his passing took place.

His wife predeceased him six years ago.

The funeral was held September 15th, at 2.30 p.m. from the First United Church. Rev. W. McN. Matthews officiating, Masonic honours being extended, and interment in Robie Street cemetery.

One of the oldest medical practitioners in Pictou County, Dr. Alexander Ross, died at his home in Westville on August 27th, following a long illness. Dr. Ross, well known throughout the county, was born 80 years ago at North Earltown and as a young man graduated from Dalhousie School of Medicine in 1896. He practised for a number of years at Merigomish and vicinity and thirty years ago went to Westville where for many years he ministered to many in the community. A few years ago he retired from active duty but was able to be about, although in failing health. Death was not unexpected as he has been critically ill for some time.

Mrs. Ross predeceased him a number of years ago and there survive him one son, Kelvin of Quincy, Mass., and two daughters, Carmina, with whom he resided and Dorothy, wife of H. C. M. Gordon. One brother, George Ross, North Earltown, and one sister, Mrs. Charles Smith, Merigomish, also survive.

Dr. John Wier, retired physician, who spent most of the years of his practice at Doaktown, N. B., died in hospital in Ottawa on August 13th, following a lengthy illness. He was eighty-three years of age and was born at Brookfield, N. S.

Dr. Herbert Huntington Banks of Barrington Passage died at his home on August 5th following a comparatively short illness. Dr. Banks was born seventy-five years ago in Barrington Passage, the son of Nehemiah and Sophia Cunningham Banks. He was a graduate of King's Collegiate School and Dalhousie University, and received his M.D. from Harvard in 1889. At the conclusion of his studies he returned to Barrington Passage where he had since practised, retiring from active work in 1939, having completed fifty years in the medical profession. In the same year the Western Nova Scotia Medical Society honoured him in recognition of this lengthy service to the community.

During his many years of practice his many fine human qualities won for Doctor Banks the implicit confidence of his patients and the affection of innumerable friends.

Dr. Banks is survived by his wife, the former Margaret C. Robertson, and three daughters and one son, nine grandchildren and one brother.

The funeral service was held on August 7th in the Anglican Church with the Masonic Order conducting the burial rites.

Prominent American physician and uncle of the co-discoverer of insulin, Dr. Oliver Fletcher Best, died in his home in Florida early in August. Dr. Best was born in Kings County, spent one year in Arts at Dalhousie University, and attended Bellevue and Knapp Memorial Hospital Medical Schools in New York City. He set up practice in Providence where he specialized in eye, ear and throat. He retired a few years ago and was in the habit of spending the summer in Yarmouth and the winter in Florida. While Dr. C. K. Fuller was post-graduating in Europe some years ago, Dr. Best took over his practice for the year. Dr. Best is survived by his wife and daughter, Mrs. William Bailey, and a sister, Mrs. Grant Foote, Waterville, N. S.

LABOUR PAY HIGHER THAN PHYSICIANS'

(J. W. S. McC.)

The Journal of the American Medical Association says, "The highest rate of pay given appears to be that for a bricklayer who is a skilled foreman. He receives \$1.79 an hour. Next comes an iron and steel worker, who gets \$1.65 an hour and after that an ordinary bricklayer who gets \$1.62 per hour.

There are still some other occupations which are more remunerative than that of the physician such as marble setter and polisher at \$1.60 an hour, and plasterer at \$1.55 an hour.

In the next group come the doctors. Amongst those who are allowed \$1.51 an hour are the air-compressor operator, the power-shovel operator, the dredge-operator, the pump and roller operator, the architect, the statistician, the lawyer and the physician.

All of the foregoing reminds us of a friend who worked in New York during the summer season as a carpenter to gain sufficient money to allow him to attend the medical school in autumn and winter. He was no great carpenter but he drew \$11.00 a day all through the season. Finally he was graduated, spent a year in Bellevue as interne and then put up his shingle. He was barely able to live on his income during the first year, so he went back to carpentering until he had saved enough money to enable him to carry on until practice improved.

Under present circumstances it takes six years of college and from three to 5 years more of post graduate study before a young man or woman feels sufficiently qualified to begin the practice of medicine. Then he or she has to find the practice. Why not be a bricklayer foreman?—*Bridgetown Monitor*.

MANY DOCTORS IN THE MORSE FAMILY

Lawrencetown, July 28—The people of Lawrencetown and community are much pleased to know that Dr. Frank W. Morse, youngest son of Dr. L. R. Morse, has returned to Lawrencetown to associate himself with his father in his medical practice. Dr. Frank graduated from Dalhousie Medical School in 1938, and since graduation has been a member of the staff of the Montreal General Hospital. Dr. Frank is the seventh member of this family to receive a Medical Degree, and is the fourth member of the family to practise medicine in Lawrencetown, immediately succeeding his brother, Dr. Lewis R. Morse, who has practised with his father for the past two years, and having only recently left for Montreal to further specialize in Urology. It is worthy of note that in the year 1860 this community was being served by Dr. Leander Rupert Morse father of the present Dr. L. R. Morse, and that since 1860 the community has been continuously served by a doctor who was a member of this family. Other members of the family who have established for themselves a high name in the medical field are: Dr. W. Reginald, who died in 1939, and for many years a Medical Missionary in China; Dr. Ellen M., at present practising in Detroit, and Dr. Garnet, now practising in Vancouver.—*Bridgetown Monitor*.

It would only confuse our argument to give details of the progress of social reform in the past century. With a certain ebb and flow, the stream has gone on broadening and deepening, especially in the last few years. Is it not written in libraries of blue-books and specialist treatises? But one of the three main branches, that of national health, illustrates in a curiously complete way that co-operation of different nations and various departments of human activity which it is our special business to consider. Among the most certain and important facts in the social history of the time, facts which find no place in the ordinary text-book and teaching of history, is the enormous advance in public health and the average expectation of life, in our own and other civilized communities of the West. Some diseases, such as typhus, have almost disappeared and nearly all show a notable decline. The one striking exception is cancer. Now the whole of the statistics of health, on which this conclusion is based, which justify experiment and direct public action in the matter, date from the decade which we noticed as the beginning of serious and continued effort at reform. The Registrar-General's records of the death-rate and its causes date in England from 1836, just four years after the death of Bentham and the passing of the first Reform Bill. The records kept have constantly become more extensive and scientific ever since, until quite recently, on the initiative of France, an international Nomenclature of Diseases has been drawn up, which has already been accepted by about a score of different nations or communities. Here is a case of the direct application of scientific knowledge to the amelioration of life with immediate and palpable advantage, and neither one science, nor one nation, marches alone. Statistics involve high mathematical capacity, and sanitation, with all the mechanics, physics, and chemistry it contains, has contributed probably as largely as pure medicine to the improvement in public health which has been attained. All civilized peoples are engaged in alliance on the same task: West aiding East in those heroic and successful attacks on disease, in which many great lives have been already spent, France and England conspicuous with Pasteur and Lister. —Quoted from Marvin, (*The Living Past*, page 250).

As we picnicked upon some small ledge, scanning the towering rock walls, in Cappadocia, Turkey, where volcanic pinnacles are honeycombed with hermit cells and monasteries, our vigil often would be rewarded by seeing some venerable anchorite let down a rope ladder from a tiny aperture, descend to the monastery church for prayers, get a week's ration of black bread and perhaps olives, oil, and raisins or dried figs, and climb back up to his cell for another week of isolation.

One of the many recluses, his cave situated behind a narrow ledge on a sky-scraping cliff, was of special interest. Daily he descended on his rope ladder, scraped from the valley a little soil, and with the burden well strapped to his back, climbed the sixty or more ladder rungs.

By dint of such strenuous efforts he finally deposited enough earth to make a tiny hanging garden. Here he planted some onions, radishes and fennel with which to flavor his scant morsel of black bread. From a small rock-cut cistern, fed by the winter rains through runnels, this strange gardener sparingly watered his bed of herbs.—John D. Whiting in *National Geographic Magazine*, Washington, D.C.

The Significance of Haemoptysis

J. E. HILTZ, M. D.

Nova Scotia Sanatorium

LET us begin with a definition. By Haemoptysis we mean the expectoration of an appreciable amount, usually a half dram or more, of pure blood unmixed with sputum. Lesser amounts which may be brought up mixed with mucus or purulent sputum are called 'blood streaked sputum'.

The statement should be emphasized that both these symptoms—haemoptysis and streaking—deserve the most careful follow-up investigation that the patient can be given. Too often the expectoration of blood is dismissed as coming from the nose or the back of the throat without a careful general examination of the patient or even a search for a possible bleeding point in the condemned breathing passages.

A haemoptysis may be confused with haematemesis, but can often be distinguished by the fact that in haemoptysis the blood is coughed up; it may be frothy due to mixture with air on its way up the bronchi and trachea, and the patient often experiences a peculiar bubbling sensation in the side of the chest from which the haemorrhage is coming. During a haematemesis, the blood is vomited; it may be mixed with food particles and there may be gastric discomfort or a history of definite gastric symptoms.

There are many obscure causes of haemoptysis such as the blood dyscrasias, echinococcus, vicarious menstruation, the self-evident trauma, or the more common cardiovascular diseases, especially mitral stenosis, but the present discussion will be confined to the common conditions that involve the lung itself.

J. M., a man of 31 years, was admitted to the Nova Scotia Sanatorium with a history of loss of weight and strength, cough, and an ounce of sputum daily. This was blood streaked on occasions. Careful investigation of the sputum did not reveal any evidence of tubercle bacilli, but fairly numerous spirochaetes were noted. Lipiodol investigation had not revealed any evidence of bronchiectasis. He was placed on a course of intravenous arsenic, and left the Sanatorium against advice after four injections. Six months later he was readmitted with a history of a definite haemoptysis amounting to 3 ounces and repeated smaller bleedings. Once again numerous spirochaetes were demonstrated in the sputum. This, presumably, was a case of spirochaetal bronchitis.

Mrs. H. S., age 31, is a similar case. She came to the Sanatorium complaining only of pain, which suggested a dry pleurisy, in the left side of her chest. The x-ray revealed scattered infiltrations throughout both lungs. Repeated sputum tests failed to disclose any tubercle bacilli and the tuberculin test was negative, (both strengths of P. P. D.) and, therefore, tuberculosis was eliminated as a possibility. Numerous spirochaetes were demonstrated in the sputum. Arsenic therapy was initiated, but again the patient refused to remain at the Sanatorium for treatment, feeling that she was not sufficiently sick to require it and being so greatly relieved to know that she did not have tuberculosis. About 1½ years later, however, she returned for examination as an out-patient.