

*Sulfonamide Toxicity

ROBERT M. MACDONALD
Surg. Lieut., R.C.N.V.R.

THIS evening it is my intention to speak on sulfonamide toxicity in general and to mention several cases which illustrate this feature. In considering this subject we will be concerned chiefly with the three related drugs most commonly used at this base, sulfanilamide, sulfapyridine and sulfathiazole.

The lay public as well as the medical profession are aware of the great advance brought about by sulfonamide therapy. Stahle¹ states that the mortality due to pneumonia in U. S. A. has been reduced from an annual rate of 100,000 to 35,000, a saving of 65,000 lives a year. He reports that in a series of 15,000 cases of pneumonia on chemotherapy only three deaths were attributed to the drug. This is sufficient to impress us that the question of toxicity is a relative matter and that the risks occurring from an exaggerated fear of toxic manifestations are greater than the omission of the drug in doubtful cases. The toxic phenomena that occur are many and varied. Fortunately most of them are recognized by careful clinical observation of the cases. What is even more encouraging is the fact that few of the toxic reactions are of serious consequence if recognized and treated early.

NAUSEA AND VOMITING

This complication is a frequent one and most marked with sulfapyridine therapy. The varying statistics of frequency are interesting. Long² states that the more highly integrated the individual, the greater chance of vomiting and nausea. Children and negroes give little trouble in this respect while private patients are notoriously bad. One hesitates from drawing conclusions from the relative mildness of this feature in the navy. At Rockhead Naval Hospital nearly a hundred ratings are on chemotherapy at one time. Nausea, with or without vomiting, is not infrequent with them but it is most unusual to have to discontinue treatment for these symptoms. This is more noteworthy in view of the preponderance of sulfapyridine usage caused by the scarcity of sulfathiazole in recent months.

Cases with nausea and vomiting may spontaneously lose these symptoms after a day or so. Reduction of dosage may allow one to continue therapy uneventfully. The cause of vomiting is chiefly cerebral so that parenteral administration seldom eliminates this untoward reaction. The exhibition of sodium bicarbonate, nicotinic acid and other suggested measures does not often afford relief. If vomiting is severe with sulfapyridine then a change to sulfathiazole may be of help. In cases where vomiting is so severe that the drug is not being retained and the clinical condition warrants full dosage then parenteral administration will give one the required blood level of the drug. Occasionally vomiting may be so severe that an acidosis occurs.

CEREBRAL SYMPTOMS

Headache is a frequent accompanying symptom of nausea and vomiting. In the more severe toxic reactions headache may be a marked feature.

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Dizziness, especially in sulfanilamide and sulfapyridine therapy, is not uncommon. It is not an important symptom in bed patients but it is in ambulatory ones. Such patients should not be allowed to drive a car, pilot an airplane or stand a look out watch. Marked cerebral symptoms of depression, confusion or delirium are occasionally seen but this is usually in more toxic patients where it is difficult to lay the whole blame on the drug. Sulfapyridine appears to be the worst offender.

Peripheral neuritis is a rare complication with the drugs considered here but with uliron and sulfamethylthiazole, both of which had many favorable properties as a chemotherapeutic agent, the incidence of neuritis was high enough to cause the abandonment of them in therapeutics.

RASHES

Rashes are one of the commonest and mildest forms of sulfonamide toxicity. The feature of them is the pleomorphic character. Practically any type of skin rash may occur but a morbilliform type is the commonest. Rashes usually appear between the fifth and ninth day of treatment. Sulfathiazole, which is definitely less toxic in many ways than the other two drugs, shows the highest incidence of rashes; they appear in 5% of cases. This drug causes a nodular type of rash, not unlike erythema nodosum, which is most unusual with sulfanilamide and sulfapyridine medication. A number of observers³ have noted the finding that the rashes are made worse by exposure to sunlight. With cessation of the drug the rash usually clears up uneventfully. However, if the clinical condition requires continuance of the drug the appearance of a rash is not an absolute indication against it. Some cases with a rash on whom therapy has been continued have lost the rash in a day or two and have had no other evidence of toxicity. Very rarely a severe exfoliative dermatitis, which may be fatal, occurs.

DRUG FEVER

Occurring about the same time as drug rashes, and not infrequently accompanying them, is a fever caused by the drug. The diagnosis may be difficult as complications such as empyema may be occurring about this time. A careful clinical investigation must be made before classing a fever as due to the drug. The response to stoppage of the drug is usually rapid. Other symptoms or signs of drug toxicity are of aid in the diagnosis. Like other toxic manifestations fever may occur when the drug dosage has been reduced or even stopped. The following case of drug fever is of interest.

Case 1. A service man, age 22, admitted for pyrexia of unknown origin. One week before he had a septic blister on his hand accompanied by lymphangitis. He was put on sulfanilamide, five grams daily. After forty-eight hours the clinical condition of arm cleared up but the drug was continued. On the fourth day pyrexia occurred and became progressively worse. On admission the differential diagnosis was: 1. encephalitis, 2. septicaemia, 3. typhoid and 4. drug reaction. Physical examination, chest x-ray, urinalysis, lumbar puncture, blood count and agglutination tests did not reveal the cause of the pyrexia. He was acutely ill and was put on intravenous therapy with sulfapyridine one gram four hourly. With this he became more ill, temperature up to 106°, severe headache, vomiting and delirium. After four grams of sulfapyridine the drug was discontinued and within twenty-four hours his temperature was normal. Subsequent progress was uneventful.

KIDNEY LESIONS

Of the more serious complications of sulfonamide therapy involvement of the kidneys is the most frequent. Practically all of the absorbed sulfonamides are excreted by the kidneys either in its pure state or in the acetylated form. The percentage of the drug in the system which becomes acetylated or conjugated varies with the different sulfonamides and with the individual concerned. This form of the drug is of less therapeutic efficacy and is less soluble and more toxic. Crystals of the sulfonamides may appear in the urine with no untoward effects. The minimal sign of renal damage may be microscopic haematuria which may clear up spontaneously or be followed by marked haematuria. This symptom usually clears up rapidly on stopping the drug and forcing fluids. The haematuria may or may not be accompanied by renal or ureteric pain caused by blood clots or by the crystals forming a calculus. The more serious end result may be a nitrogen retention, anuria and a fatal outcome. A number of cases have been reported where recovery was attributed to a cystoscopic catheterization of the ureters and washing out the pelvis to dissolve the crystals. Blood clots at the end of the ureters have been successfully dislodged by the catheters.

With regard to kidney lesions one must remember that in patients with renal insufficiency the excretion of sulfonamides is impaired and toxic manifestations of renal and other origin are more liable to occur.

The following cases are illustrative of the more serious involvement of the kidneys.

Case 2. A rating, age 18 years, was admitted for acute gonorrheal urethritis. He was started on sulfathiazole but responded poorly and after four days was changed to sulfapyridine on which he continued for ten days. The response to this drug was unsatisfactory and he was taken off chemotherapy for a short time and then a further trial of sulfathiazole was made. Within two days he complained of headache, vomiting, bilateral renal pain and haematuria. The patient was acutely ill and could not retain fluids by mouth. The drug was stopped and he was put on intravenous fluids. The response was rapid and he made an uneventful recovery.

Case 3. A rating, age 23 years, was admitted for recurrent gonorrheal urethritis. He received "tablets" for one week at sea a year before. He was started on sulfapyridine but after receiving ten grams he developed haematuria and abdominal pain. The drug was stopped and fluids forced. In the next two days he became much worse with severe abdominal pain, vomiting and anuria. After forty hours of anuria, despite the acute urethral infection, he was cystoscoped. With considerable difficulty the blocked ureters were cleared and following bilateral removal of obstruction progress was uneventful.

HAEMOPOETIC SYSTEM

Cyanosis of some degree occurs in most patients on full doses of sulfanilamide and sulfapyridine. Rarely is it a serious manifestation and seldom calls for treatment. However, methylene blue will relieve the cyanosis by converting the oxidised methaemoglobin to haemoglobin. The earlier exaggerated alarm of cyanosis was based on the belief that it was due to sulfhaemoglobin. This mistaken belief was responsible for the dietary restriction of onions, eggs, etc. Such curtailment of diet is not necessary.

During chemotherapy a slight fall in haemoglobin usually occurs. This also happens in many illnesses with or without drug therapy and is of no consequence. However there is a grave form of anaemia which may occur in the first four days of treatment. It is an acute haemolytic anaemia which may reduce the haemoglobin 50% in as short a time as twelve to twenty-four hours. Gilligan⁴ records a case where the red cell count fell from 3.5 million to 1.2 million in twelve hours. Associated with this acute haemolysis the patient usually has chills, fever, jaundice and leucocytosis associated with an active normoblastic marrow. Haemoglobinuria may occur. The aetiology of the condition is obscure but it is probably a sensitivity type of reaction. Treatment consists of stopping the drug, forcing fluids and transfusions as indicated by the anaemia.

The toxic effect of sulfonamides on the bone marrow is well known. It is of serious consequence. A reduction of the white count during therapy is usual but this is not important. However if an agranulocytosis results the outlook is grave and if not recognized and treated, it will soon lead to death. Agranulocytosis seldom is seen unless cases are under prolonged therapy. It is rare before two weeks of treatment but any case requiring full dosage of the drug should have repeated leucocyte and differential counts. Nevertheless, Spain⁵ recorded a fatal case in a young woman who had only 4.5 grams of sulfapyridine and 4.5 grams of sulfanilamide. Treatment consists of drug stoppage, fluids, transfusions and the use of nucleic acid derivatives.

Although realizing that an agranulocytosis as a drug toxic manifestation is an absolute indication for cessation of the drug one must not consider a pre-treatment leukopenia as of the same significance. Friedberg⁶ described two cases of acute pneumonia that had white blood counts as low as 700 and 2,900 cells. Both cases had multiple lobes involved and were acutely ill. After administration of sulfapyridine to these cases there was a prompt clinical improvement and it was accompanied by a rise in the leucocyte count. He considers that in lobar pneumonia associated with leukopenia sulfapyridine is especially indicated. Finland⁷ also endorses the use of chemotherapy in cases with leukopenia due to a very severe infection of pneumonia. Recently Dameshek⁸ reported two cases of agranulocytosis due to aminopyrine toxicity in which he used chemotherapy. The rationale of this was that death was more likely to have occurred from overwhelming sepsis in a body stripped of its granulocyte defences and that the sulfonamides have a bacteriostatic effect. He considered the possible use of sulfathiazole or sulfanilamide in sulfapyridine agranulocytosis and vice versa but few clinicians would advise this without further evidence of its wisdom.

A rare blood complication is a thrombocytopenic condition which may lead to serious haemorrhages from the mucous membranes. In all of the toxic effects on the haemopoetic system sulfapyridine and sulfanilamide are the more frequent and serious offenders.

JAUNDICE

Jaundice in acute haemolytic anaemia has been mentioned above. In addition to this a mild jaundice occurs in a number of patients under treatment. In untreated pneumonia this condition is seen in a certain percentage of cases so it is difficult to say how much of it is due to the drug. An uncommon yet recognized toxic manifestation is an acute hepatitis. Deaths from this have been reported⁹.

MUCOUS MEMBRANES

Up until about two years ago there were few references to toxic manifestations of the conjunctiva but at this time reports on sulfathiazole were including the observation that injection of the conjunctiva was not uncommon. Long¹⁰ considered this a new type of reaction of the sulfonamide group. Stomatitis is considered a rare complication with any of the sulfonamides. Moore¹¹, in 1940, described a case of a boy, age five years, with pneumococcal meningitis who had one hundred and thirteen grams of sulfapyridine in fifteen days. Twelve hours after the drug was stopped there appeared a morbilliform rash which was profuse within forty-eight hours. Along with this there was a heavy bluish white gelatinoid membrane on the lips, buccal mucosa and gums. This membrane extended to the pharynx. The mucous membrane of the nose and conjunctiva were similarly affected but to a lesser degree. The condition cleared up in six days. The author believed that this was the first record of this manifestation in the literature. Two similar cases, which are to be reported in detail at a later date, are summarized here.

Case 4. A rating, age 27 years, was admitted with a respiratory infection and was put on sulfapyridine. Some initial improvement was followed in a few days by fever, headache, vomiting, urethral discharge, conjunctivitis and stomatitis. These symptoms were getting worse and it was two weeks after admission when a herpetiform lesion of his skin suggested the diagnosis of drug toxicity. On removal of the drug the response was rapid and he made a satisfactory recovery although he was gravely ill due to the persistence of chemotherapy by parenteral routes when he had marked sulfapyridine poisoning.

Case 5. A rating, age 35 years, was admitted in an acutely ill condition with severe conjunctivitis, stomatitis, tonsillitis, bronchitis, urethritis and pyrexia. He gave a history of acute tonsillitis twelve days before which improved after a week but when he was almost ready for discharge it returned and was accompanied by the other symptoms mentioned above. On admission to hospital he was put on sulfathiazole. The next day the cause of the trouble was suspected and enquiry elicited the fact that he had sulfanilamide for most of the previous time that he had been under treatment. At this period there was definite haematuria present. On stopping chemotherapy and forcing fluids the recovery was dramatic.

OTHER MANIFESTATIONS

There are several other unusual reactions to these drugs. Ocular and auditory disturbances, particularly temporary myopia, have been reported. Painful joints, more especially with sulfathiazole, have been noted and in the treatment of gonorrhoea it may lead to extreme diagnostic difficulties.

Mention should be made of hypersensitivity to sulfonamides by previous administration of the drugs. Lyons¹², records that nineteen of fifty-three patients who had sulfathiazole readministered experienced a febrile reaction shortly after the beginning of the second course although no drug fever occurred in the first course. Eight out of ten reacted similarly on a third administration.

It is not possible to be certain how patients who have had drug toxicity will react on the second administration. Some react more violently and rapidly while others do less so. Nevertheless, any patient who has had a

serious reaction from the drugs should not be given another course of treatment without a test dose and if no untoward manifestation occurs with this, then therapy may be continued with particular care and watching.

PARENTERAL ADMINISTRATION

In the administration of the sulfonamides it should be remembered that if parenteral therapy is carried out with the sodium salts of sulfapyridine and sulfathiazole they should never be given subcutaneously as they have a high alkalinity and cause necrosis of tissue. Similarly they should not be given intrathecally as illustrated by the following record.

Case 6. A service man, age 19 years, was admitted to hospital as a post-meningitis paralysis. On examination he had complete flaccid paralysis of his right leg with absent reflexes and cutaneous sensory sensation. In addition he had partial loss of bladder control. He gave a history of being admitted to an outpost hospital one month before for cerebral-spinal meningitis. Following lumbar puncture he was given one gram of sodium sulfapyridine intrathecally and started on sulfathiazole orally. Three or four days later his leg symptoms began and progressed rapidly. It seems most probably that his myelitis was the direct result of the irritating action of the sodium sulfapyridine.

INTRAPERITONEAL ADMINISTRATION

Lesses¹³, has reported two cases that had anaemia, leukopenia and hepatitis from toxicity of massive single doses of sulfanilamide intraperitoneally. He feels that a less soluble drug, such as sulfathiazole, would be less likely to develop these toxic results. It seems reasonable to advocate less massive intraperitoneal dosage and to supplement it with oral therapy which can be stopped if the need should arise.

SULFADIAZINE

At present we have not been supplied with this drug at this base but it is now undergoing extensive clinical trials and gives promise of being the superior and the least toxic drug. In a recent conference on therapy¹⁴, an analysis of four hundred and fifty-seven cases treated with sulfadiazine showed seven patients with haematuria, ten with a rash and one with stomatitis. As further use of this drug is reported more cases of toxicity are being found and they appear to be of the nature described in this paper for sulfonamides in general although probably of less frequent incidence.

SUMMARY

In summarizing it may be said that all the sulfonamides show various untoward reactions in a percentage of cases and that these drugs should not be given without medical supervision. Sulfathiazole gives rise to less nausea, vomiting, headache and dizziness and from the patient's point of view is the drug of choice. However, considering all factors it seems that the toxicity of any of these drugs is not sufficient to prevent the use of the drug of choice as determined by the therapeutic efficacy of the particular sulfonamide for the disease in question. Finally, it may be said that practically all of the toxic reactions, except agranulocytosis, may be detected relatively easily if a close clinical watch is kept on the patient and an understanding of the multiple manifestations of toxicity kept in mind.

I wish to thank Dr. C. MacLeod, Chief Medical Officer of Camp Hill Hospital for permission to quote from the records of cases in that hospital.

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The Treatment of Some Common Cardiac Disorders

C. W. HOLLAND, M.D., F.R.C.P. (C.)

Halifax, N.S.

WHEN I received from your secretary the invitation to present a paper before your society I was rather at a loss to select a subject which should be not only of interest to the general practitioner, but perhaps serve to assist him in his everyday problems. In view of the prevalence and importance of cardiac disease I decided that a review of the treatment of the common disorders of the heart would be acceptable.

Whereas preventive medicine has conquered so many of the ills to which flesh is heir, it is unfortunate that it has achieved so little in the field of heart disease. The disease is usually a chronic one, so that one may say "Once a cardiac, always a cardiac." The purpose of treatment is therefore to relieve symptoms, to improve the mental and physical efficiency of the patient, and, as is customary in the treatment of any disease, to prolong life. The more recent methods of investigating our cases, namely the X-ray, electrocardiogram, B.M. Test, and other laboratory procedures, have thrown a great deal of light on the nature of many of the cardiac conditions which were formerly obscure and often regarded as hopeless, and by aiding us in making correct diagnoses, have enabled us to institute successful treatment for many of them. I do not wish to convey the impression that the above aids are always essential to correct diagnosis for I realize that they are so often not available, but in the hands of investigators they have served to explain certain clinical features and thus to give these latter more significance. For example, the recognition of coronary occlusion as a very definite clinical entity has a scientific basis, so that nowadays praecordial or epigastric pain is less likely to be attributed by the doctor to "acute indigestion" as was the case not so many years ago.

Rheumatic Heart Disease

In Rheumatic Fever there is no specific treatment to prevent cardiac involvement. The *salicylates* have a striking effect on the fever and the joint pains, but none on the actual infection or the cardiac involvement. Streptococcus vaccines have been a failure. In view of the theory held by many that the infection is streptococcal, one would expect that *Sulfanilamide* or other sulfa compound would prove beneficial, but such has not been the case. Some clinicians prefer to continue the patient on a maintenance dose of salicylate for some time after the fever and pains have subsided. For praecordial pain an *ice-bag* over the chest gives some comfort. Digitalis has no effect on the tachycardia and in fact, is only indicated when congestive failure develops.

Rest is the most important therapeutic measure and must be as complete as possible. The length of time during which the patient must be kept in bed will vary, depending on whether or not there is evidence of active infection still present. The heart rate, fever, joint pains, the sedimentation rate, the leucocyte count and the electrocardiogram are all helpful in determining this point. For a child *loss of schooling* may become an important consideration. When possible some teaching by parent or tutor should be instituted.

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Another important matter is the *avoidance of respiratory infections*, which might be conveyed to the patient by visitors, members of the family, or even the nurse or physician.

The *diet* should be liberal and nutritious with ample vitamin content.

In view of the association between tonsillitis and rheumatic infection one would naturally conclude that tonsillectomy would have a beneficial effect, both as a prophylactic and a curative measure. Statistical studies indicate that rheumatic fever is somewhat less likely to occur in children who have had their tonsils removed than in those who have not. Sometimes in the course of the disease when mild symptoms are persisting a tonsillectomy is performed in the hope of eradicating the assumed focus. The results may be satisfactory or the reverse. I can recall the case of an eight year old boy with advanced rheumatic valvular disease, who had been attending my heart clinic for some time. He was having repeated sore throats and I was always afraid he would have a real flare-up of his rheumatism. I advised tonsillectomy and finally the parents consented. A few weeks after operation the boy developed a severe attack of rheumatic carditis, and died from congestive failure in a short time. The parents of course blamed the operation for the child's death, and who would deny that probably their attitude was warranted?

There is apparently no proof that dental infection is an etiological factor in Acute Rheumatism, but of course it may have a direct bearing on the development of subacute bacterial endocarditis, by providing a portal of entry for invading bacteria.

The avoidance of exposure, chilling and common colds is important in preventing the first attack of rheumatic fever, or subsequent ones. Parents should see to it that their children are properly clad, that they get sufficient rest, and proper diet.

It has been observed that children who are overweight are less likely to develop rheumatic fever than those who are average or underweight. Again, those who have had an attack and subsequently gain are less liable to subsequent attacks. These observations indicate the advisability of encouraging a certain degree of overweight in children.

Though climate is an etiological and aggravating factor in this disease, it is rarely feasible, even though desirable, for a family to seek a more suitable locality for the sake of the health of one of its members.

The physician is frequently confronted with the problem of deciding how much activity, athletic or otherwise, a patient with heart disease should be permitted. This is not difficult where there is a history or evidence of cardiac failure, or advanced disease. It is the patient with a mitral systolic murmur who causes the dilemma. It is most important to differentiate organic from functional disorders. When in doubt, I think it advisable to regard the case as functional. The physician may, through an error in diagnosis or judgment, restrict the activities of the patient to such an extent that an unhappy cardiac invalid is the unfortunate and unnecessary result. As Director of the Students' Health Service at Dalhousie, I frequently have occasion to decide on what forms of exercise may be suitable for a student. When possible I endeavour to minimize the heart condition in order to give the student the needed assurance that he is not headed for an early demise. On the other hand, if I hear of a student with mitral stenosis turning out for football practice, I naturally hasten to curb his athletic ambitions.

Congestive Heart Failure is a problem which we meet so frequently and one which demands prompt treatment.

The first measure to be instituted should be complete bed-rest. The physician must be prepared to overcome all arguments of the patient who may not at first appreciate the necessity of being in bed all of the time.

Make the patient comfortable in bed by means of pillows and backrest. If a hospital bed can be rented so much the better. An overbed table is a valuable adjunct, as orthopnoeic patients can lean forward and rest their elbows on it. Most men resent using a bed-pan and will plead with the doctor for bathroom privileges. I believe the commode chair provides a suitable compromise. *Visitors* should be banned at first, and when later permitted, should be requested to make their visits short in order not to tire the patient. For amusement the patient may be permitted light reading or the radio.

The diet must be light at first. A useful one at the start is the Karell diet—200 c.c. of milk four times daily, plus a little water. This is particularly useful if the patient is overweight or has hypertension or oedema. (It reduces the BMR, B.P. and pulse rate and thus lightens the load on the heart and improves the circulation).

It used to be customary to purge the patient in order to get rid of some of the oedema. The patient doubtless lost more strength than water by this procedure. A mild laxative or enema every day or two is usually given.

During the first few days or nights it is often advisable to use sedatives. Morphine or pontopon hypodermically are very effective. Later, some milder drug is desirable, such as bromide, chloral hydrate or one of the barbiturates, given orally.

Digitalis, the cardiac's friend, though in use for 150 years, has only recently been used on a scientific basis. Much has been written about the use and abuse of this wonderful drug. It was formerly taught that it should not be given in the presence of fever, high blood pressure or aortic valve disease. We now know that it can and should be prescribed in all states accompanied by congestive failure. It is most valuable when auricular fibrillation is present, but can be given if the rhythm is regular. There are numerous preparations available, practically all of them being standardized. One should select an inexpensive form of known potency and acquire the habit of using one or two preparations only. It is important to know the exact amount of the drug given and for this reason the solid forms have an advantage over the liquid ones. There prevails a common misconception that 1 drop of the tincture is 1 minim. A useful preparation is the capsule or pill of $1\frac{1}{2}$ grs. which is 1 cat. unit.

For digitalization the average adult requires about 25-30 grs. of the powdered leaves, or 6 or 7 drams of the tincture. The initial dose depends upon the urgency of the case. If the patient has not been receiving digitalis, one might start with 3-6 grains, repeated in four hours and then gr. $\frac{1}{155}$ every four hours until there is evidence of the desired effect or toxicity. After two or three days a maintenance dose of gr. $\frac{1}{155}$ may be all that is required.

A point worth remembering is that nausea and vomiting may be due to the congestive failure and not to digitalis. The indication in this event is for more, not less, of the drug.

Sometimes a patient is unable to take it by mouth. This may be real or merely prejudice. For such an individual digitalis can be given per rectum. The total daily dose should be given at one time, and preferably at bedtime.

When speed of action is required, digitalis can be given intramuscularly or intravenously, but with caution. We often prescribe it subcutaneously but some of the preparations are very irritating and slowly absorbed.

The physician should be on the alert for indications to diminish or omit digitalis. These are, 1, the desired therapeutic effect, 2, toxic effect. Subjective symptoms are anorexia, nausea, vomiting, diarrhoea and yellow vision. Objective symptoms are coupled rhythm, heart block and electrocardiographic evidence.

Other drugs with a digitalis-like action may be tried, but they are less effective as a rule. Strychnine and camphor are not of much value. Caffein and coramine have their place as quickly acting stimulants. Adrenalin and ephedrine may be useful for dyspnoea due to asthma or emphysema. We have recently heard of a newcomer in the therapeutic field, viz. cortison. To date I have had no experience with it.

Diuretics.

For oral use such preparations as theophylline or diuretin are often satisfactory, though they may cause gastric irritation. Mercurial diuretics are becoming more popular. They are usually combined with theophylline, aminophyllin, etc. I have employed salyrgan and neptal mainly, either intramuscularly or intravenously. Great care must be taken to avoid getting these irritating substances outside the vein or muscle, as sloughing may result. It is advisable when using the intravenous route to dilute the preparation with sterile saline. Kidney function should be determined as reasonably good before the mercurials are given. Normal kidneys do not seem to suffer any damages from these preparations. The diuretic effect is sometimes striking. I recently had a patient who received repeated intramuscular injections every five days, the urinary output varying from 150—210 ozs. in 24 hours, a very gratifying result. If the output is disappointing one might try a preliminary course of ammonium chloride (enteric coated) 15 grains four times daily for a few days prior to the injection. Suppositories of the mercurials are much less effective.

Diuresis can also be obtained by using urea (2 or 3 oz. daily) or by replacing the sodium chloride of the diet with potassium chloride.

One must bear in mind that in some cases of heart failure there is also renal disease and failure. Diuretics in these may prove disappointing or even harmful. One should not forget the possibility of the urine being retained in the bladder as the explanation of the apparent failure of a diuretic to produce results.

Certain mechanical methods must sometimes be employed for the removal of fluid. Southey tubes have unfortunately fallen into disuse. Paracentesis of the thorax or abdomen are frequently indicated.

Phlebotomy may prove beneficial if the patient has distended cervical veins, marked cyanosis, pulmonary oedema, or a distended liver.

Some advocate the application of tourniquets to the limbs as an emergency measure.

A few years ago thyroidectomy was tried as a measure to relieve chronic congestive failure, but I understand that it has been abandoned.

(Quinidine is a dangerous drug particularly in cases of mitral stenosis with auricular fibrillation. It can, however, be employed with comparative safety in cases of transient or paroxysmal fibrillation, paroxysmal tachycardia or troublesome extrasystoles.)

Eventually the physician must decide when improvement in the patient's condition is sufficient to safely permit some activity. In making this decision many factors, physical, mental and economical must be considered.

Congenital Heart Disease.

For the majority of these cases there is no treatment. As subacute bacterial endocarditis and pulmonary tuberculosis are common complications an effort should be made to maintain general bodily resistance to infection. The elimination of foci of infection is proper but not without risk. Recently an operation for patent ductus arteriosus was introduced. The results have been encouraging but there have been operative fatalities too.

Syphilitic Heart Disease.

If congestive failure develops in this condition, the response to treatment is likely to prove disappointing. Antileptic therapy should not be employed until improvement is obvious, and then no arsenicals should be given. If the disease is diagnosed before failure or angina occurs, potassium iodide, bismuth or mercury may be used. At a later time, arsenicals may be tried, but cautiously.

Subacute Bacterial Endocarditis.

All the chemotherapeutic agents have been tried for this disease. Reports in the literature are conflicting but an occasional recovery has occurred. Sul-fapyridine seems the drug of choice. If the early response is encouraging the drug should be continued for weeks. Frequent blood counts are, of course, imperative. Heparin and hyperthermia have apparently failed. Transfusions and iron are only palliative.

Angina Pectoris.

I think one should avoid the use of the term in discussing the condition with the patient, but it is advisable to inform the next of kin. Tell the patient the pain is due to a tired or impoverished heart-muscle.

For the treatment of the attack nitro-glycerine seems preferable to amyl-nitrite. A tablet of gr. 1/200 or gr. 1/100 placed under the tongue will usually relieve the attack in a few minutes. The patient should be instructed to always carry some of these tablets with him. He should be warned about the possible unpleasant effects. Make sure the tablets are fresh as they tend to lose their potency in time. In addition to serving as a therapeutic measure, they may be used as a therapeutic test. The patient may use as many as ten or twelve tablets daily and apparently indefinitely without harm. The patient usually learns to omit or to curb the act which brings on the attack. If this is impossible a nitro-glycerine tablet should be employed to prevent the pain. In some cases it is advisable to put the patient to bed for a few weeks in order to curb both mental and physical activities.

Many of the patients are overweight and require a reducing diet with sufficient vitamins. Relaxation and rest after a meal will serve to prevent the tendency to attacks so frequently observed after eating. The frequency of belching and "gas" with the attack account for the commonly expressed explanation by the patient that the pain is due to indigestion, and for the reluctance to accept the diagnosis of heart trouble. The belching may be due

to swallowed air, but on the other hand it may indicate an organic condition in the gall-bladder, stomach or duodenum. Tobacco should be forbidden. Drugs to lessen the frequency and severity of the attacks include the so-called coronary dilators. Aminophyllin gr. $\frac{1}{155}$ three times daily often gives excellent results. Bromides and barbiturates are used to counteract the emotional element. Potassium iodide is helpful in syphilitics. Digitalis does no good. Recently testosterone propionate intramuscularly has been reported favourably. Surgical measures include thyroidectomy, cervical or dorsal sympathectomy, and the more spectacular procedure of sewing the pectoral muscle to the heart. I have had no personal experience with these measures but my impression from reading the literature is that some commend while others condemn them.

Coronary Occlusion.

The first indication is the relief of pain. Morphine gr. $\frac{1}{4}$ - $\frac{1}{2}$ hypodermically should be given at once, and repeated in one half to one hour if the pain is not subsiding. Some authorities now advocate combining atropine with the morphine. Occasionally the victim quickly loses consciousness and becomes pulseless. For this alarming condition adrenalin (1-1000 sol.) .5-1cc. is given and may help to restore consciousness.

If the case seems critical he should not be moved or undressed until some improvement is apparent. It is not unusual for the physician on his arrival to find the patient pacing the floor, or exhibiting marked restlessness, activities which though natural for a person in pain, must nevertheless have a deleterious effect on the heart. Once safely in bed both patient and relatives must be impressed with the necessity for complete rest, both physical and mental. The nursing care is, of course, most important. Morphine, nembutal or seconal should be employed to induce sleep for the first few nights, while during the day small doses of phenobarbital will serve as a suitable sedative. The diet should be liquid at first, and later of a lighter character, unless there is abdominal distension laxatives and enemata should be postponed for two or three days. Very often the commode is preferable to the bedpan. If pulmonary congestion, marked dyspnoea and pain persist oxygen may give considerable relief. If complete heart block develops it may be remedied by adrenalin. Rarely paroxysmal ventricular tachycardia is a complication and quinidine is indicated. Some advocate the giving of coronary dilators. Of these aminophyllin seems the one of choice.

Tobacco is best avoided, though it is difficult and often impossible to persuade a patient to give it up. Digitalis should only be employed if congestive failure supervenes.

The question of the length of time in bed will be a constant one for the physician to answer. The minimum period should be four or five weeks and preferably longer. The process of getting up should be a gradual one. The patient should be permitted to sit on the side of the bed, then a few days later in a chair for a short period, and so on. The matter of returning to work will depend on the nature of the person's occupation and temperament, and the response to treatment. It is usually wise to continue the coronary dilators, and sedatives. Avoidance of overweight and tobacco must be stressed. It seems to be generally conceded that an occasional drink is not harmful, though I feel this is debatable.

Thyroid Heart Disease.

In thyrotoxicosis the common cardiac abnormalities are tachycardia and auricular fibrillation. Some cases develop congestive failure. For the latter condition the customary measures are employed with the addition of Lugol's Solution—min. x t.i.d. The patient will usually respond to these measures so that operation can be performed with reasonable safety. The cardiac complications are toxic in origin, and their removal depends upon the removal of the toxic focus, that is subtotal thyroidectomy, which in some instances is preceded by a ligation.

I would like to stress a point which I think is worth remembering. It sometimes happens that a patient with auricular fibrillation is treated with digitalis of known potency and in appropriate dosage, and the expected response to therapy is not forthcoming. One should consider the possibility of hyperthyroidism being the underlying cause of the arrhythmia, and proceed to investigate the case for this condition.

In *Myxoedema* the heart may become enlarged and congestive failure develop insidiously. Conversely, in treating congestive failure the possibility of thyroid deficiency being the aetiological factor must not be overlooked. In treating myxoedema one should proceed cautiously as sudden elevation of the metabolic rate may throw sufficient strain upon the heart to cause praecardial pain, dilatation and even sudden death.

Paroxysmal Tachycardia.

There are two types, auricular and ventricular, the former being far more common.

Treatment of the Attack. There are many simple procedures which should be tried, viz. holding a deep breath, the adoption of a certain posture, e.g. the knee-chest position, bending over suddenly, or bending over and suddenly straightening up; jumping up and down. Swallowing a piece of ice or a large bolus of food (bread). The induction of vomiting is often effective.

Carotid sinus pressure. I have used this method a great many times with dramatic success, and on one memorable occasion with tragic failure. The latter was the case of an elderly man who was admitted to hospital with a history of rapid heart action for three days. Thinking that prompt relief would be welcome I applied pressure to the left carotid sinus and the patient suddenly expired. I can find no reference in the literature to a similar case. In fact, the authorities on cardiac disease describe carotid sinus pressure as a safe procedure.

Pressure over the Eyeballs.

This is a painful method and one which I have never employed. *Quinidine sulphate* is a useful preparation which I have used many times. I have never given it any way but orally. Digitalis in large doses may sometimes terminate a stubborn attack. More recently methyl choline has been employed successfully.

To prevent the attacks. If the patient is aware that certain act, such as stooping suddenly, is liable to precipitate an attack, he will naturally try to avoid it. I once had an elderly patient who was absolutely incapacitated by

daily attacks which would last for hours. This distressing state of affairs was controlled by quinidine sulphate grs. XV daily, which he took for two years. Sometimes digitalis will satisfactorily prevent attacks.

In heart disease as in any other variety, successful treatment depends upon accurate diagnosis. We should bear in mind that the natural tendency of all tissues in the body, including the heart, is to recover from pathological states. This is particularly true in the case of acute rheumatic and even acute coronary heart disease. Therapeutic measures may be given credit for what might have occurred naturally. New drugs and methods should be employed cautiously, lest the patient be overtreated and even killed with kindness.

Presidential Address

J. G. B. LYNCH, M.D.
Sydney, N. S.

Ladies and Gentlemen:

The honour of having been appointed President of the Nova Scotia Medical Society, I consider very great. I am only sorry that it was beyond my ability to meet all the medical men in the Province and to try to help solve some of our difficulties, but I may say that I have attended meetings of most of the branches from Yarmouth to Cape Breton and I have found the men active and vitally interested in the well-being of their communities and the active prosecution of the war.

In the past it has been the custom of those in the Chair to delve into ancient history and to discuss not only the greatness of our profession but also the masters who have carried it on since the beginning. The number of masters that our profession has produced or who have benefitted medical studies is far beyond the human ken and many of them are not noted in history, and therefore I feel that at the present time, with the idea becoming generalized that there will be a new order following the present struggle, we should not only look to the past and to the present, but to the future, and I am going to deal for a few moments with these different angles.

At present the world is in a terrible turmoil. Things are far from good and our only pleasant thought is that they could be worse. The present demand for scientific investigation and for very close application of medical science is one that we all should accede to, because the responsibilities of looking after our fighting forces are very great. These responsibilities fall on the shoulders of the men who have had the courage, the vision and the forethought to enlist to help in winning the war; and if, in the disasters of the near past, some catastrophes have been averted by the devotion of these men to their duties, may God bless them. However, the great majority of those here to-day belong to the lay-practitioner class and it is their duty, their responsibility and their every thought to keep the civilian population in such a physical condition that they will be able to produce the sinews of war which are so necessary to defeat our enemies. These are the men who quietly and unpretentiously go about their duties and are too soon forgotten, and call to mind a few lines from Kipling's *Recessional*:

The tumult and the shouting dies;
The captains and the kings depart:
Still stands Thine ancient sacrifice,
An humble and a contrite heart.

We, one and all, must realize that our responsibilities do not rest with our practice alone, but we must take upon our shoulders the duties that have been left behind by those who have enlisted in the Services and I can assure the public that we, the general practitioners, will gladly assume this duty.

As to the future of medicine, it is hard to foretell. As you know, social changes and social legislation are world-wide, and, of course, it is only natural that the profession that comes closest to the home and to the individual is

the one that the public would expect to be regimented first. An attempt at regimentation has already begun but with indifferent success because it was taken upon the shoulders of the laity without due consideration or consultation with the members of our profession.

The people who enter the medical profession to-day solely from a mercenary standpoint are making a great mistake because the responsibility of any future government control rests upon them. In the past, as it will be in the future, the practice of medicine has been a highly scientific humanitarian employment and it was not until the marked financial desire on the part of some members of the profession became noticeable that the government began to interfere.

There is one particular thought that I would like to leave in the minds of not only the members of the Nova Scotia branch but also those who are representing the Canadian Medical Association here to-day. In their declining years very many general practitioners find that they have been unable to set aside enough to protect themselves and their families and I would like to suggest that a sincere effort be made to canvass the situation and to find out if a pension scheme cannot be put into effect to assist those members of the profession who are unable to look after themselves. Of course, the older men of to-day unfortunately would not benefit materially by such a scheme, but I think that the future of the profession is one to be guarded and protected.

The future of the human race depends upon the active co-operation between the scientific investigator on the one hand and the practical administrator or general practitioner on the other, and it would be a sad day for the world at large if we ever became a body politic and were controlled by people who might use us or our profession as a foot-ball to gain power. We, therefore, must organize not only for the benefit of the medical profession but for the benefit of the human race, to carry on our scientific activities and to properly apply our scientific discoveries. There is no doubt that if such does take place, we will have a more satisfied, a more healthy and a more intelligent race in the future. So, I shall leave this thought with you, Gentlemen, the thought of the necessity of organizing for the purpose of protecting people against themselves and I hope that it will be the responsibility of each and every one of you to see that the Canadian Medical Association becomes one hundred per cent strong in the Province of Nova Scotia.

Editor's Column

THE ANNUAL MEETING

THE meeting at Sydney was in every way one of the most successful the Society has known. Even the weather smiled on us.

On Tuesday afternoon the executive met with most branch societies represented. The business of the year was discussed and resolutions were adopted for consideration by the general meeting to be held the following morning. Dr. J. G. B. Lynch, the retiring president, entertained the executive at dinner at the Isle Royale Hotel on Tuesday evening.

On Wednesday morning in the absence of Mayor MacLean we were given a hearty welcome to Sydney by Alderman Hines. He paid tribute especially to Dr. G. H. Murphy and Dr. F. R. Davis for their excellent accomplishments in improving the health of the people of Nova Scotia.

The first paper was given by Dr. A. T. Bazin of Montreal. It was a scholarly and practical consideration of cancer of the large bowel. He began with the development of the gut, the blood supply, and lymphatic drainage. He went into symptomatology in a practical manner and gave us the benefit of his long experience as a surgeon in the matter of choice of operation. In all it was an excellent presentation of a most important subject. Dr. W. Alan Curry briefly discussed Dr. Bazin's paper.

Dr. F. H. McKay followed with a most interesting discussion on common lesions of the spinal cord. Starting in the cervical region he continued down to the cauda equina, stopping here and there to emphasize or to bring out some special point about common lesions. In dealing with sciatica he stated that in his experience dislocated nucleus pulposus constituted the primary cause in a very high percentage of cases. In conclusion he spoke on infantile paralysis and dealt with the prophylaxis and epidemiology. He did not advocate the use of convalescent serum for therapeutic purposes but felt in the absence of anything better it should be tried. Regarding the method of transmission he spoke of the evidence accumulating which indicates that infantile is filth-borne as well as transmitted by the secretions of the nose and throat. He advocated training young children in sanitary habits especially at this time of year.

The meeting was then addressed by Dr. A. E. Archer, the President of the Canadian Medical Association. Dr. T. C. Routley, the General Secretary did not attend. He was detained at Ottawa to set up the machinery for the newly formed Canadian Medical Procurement and Assignment Board. Dr. Archer spent Tuesday night in travelling by plane from Ottawa to Sydney so that he could attend our meeting. He spoke to us in a pleasing and yet convincing manner on recent developments at Ottawa in order to secure more physicians for the armed forces; he brought us up to date on Health Insurance, and he pointed out the importance of increased membership in the Canadian Medical Association. He told the meeting of the establishment at Ottawa of the Canadian Medical Procurement and Assignment Board whose duty it will be to secure immediately for the armed forces as many physicians as it is possible, due consideration to be given to the needs of the civilian population, staffs of hospitals and medical schools. He said in each province there will be a branch

of this board to advise the central body; that at Ottawa the Board is made up of representatives of the several branches of the armed forces and of the Canadian Medical Association. In Nova Scotia the chairman of the Divisional Medical Advisory Committee will be a member of the local advisory board. The Central Board is under way now and will consider within a short time the assignment of all physicians in Canada who come within the scope of the military act and are not now in uniform; also the cards of some three hundred members of the Canadian Medical Association who have already offered their services. Dr. T. C. Routley has set up an office at Ottawa and will be in communication with our Divisional Advisory Committee within a few days. Dr. Archer told us of recent conferences between the Committee of Seven of the Canadian Medical Association and the Department of Pensions and National Health on Health Insurance. He said that there had been considerable pressure brought to bear on the Federal Government, chiefly by Labour, from all parts of Canada and that there was no doubt the Federal Government would put such an act into force. He did not feel the act would be introduced for some time, perhaps a year or two. He advised that we crystallize our thoughts on Health Insurance at once so that the Canadian Medical Association could present clear cut recommendations to the Government. Particularly did he ask us to finalize our opinions on the place of the specialist in such a scheme; the costs, and the remuneration to the physician. He assured the meeting that the relations between the Canadian Medical Association and the Department of Pensions and National Health were satisfactory, and that when legislation was finally enacted the medical profession would be justly dealt with. Dr. Archer concluded with a request for one hundred per cent membership in the Canadian Medical Association from Nova Scotia. He told us how membership difficulties had been solved in his own province, Alberta. There they have an annual registration fee collected by the College of Physicians and Surgeons from every doctor in the province and from this fee the dues of the provincial association and the Canadian Medical Association are paid.

The first business session was dealt with in a most efficient manner by President Lynch. Only a few of the reports were brought to the attention of the general meeting—all will be published in the BULLETIN.

On Wednesday there was luncheon at the Isle Royale Hotel at which Mr. Frank Rowe, Chairman of the Workmen's Compensation Board gave an address. Mr. Rowe went into the history of compensation for workmen; traced its development in Canada, dealt with the salient features of the Nova Scotia Act and defined the duties of the Board. He thanked the members for the fairness with which they treated compensation cases and assured the Society that the Board had always endeavoured to deal with the doctors justly. His speech was received with much interest, in fact it might well have been given before one of the general sessions.

Following the luncheon the men went to golf at Lingan, the ladies to tea at Stewart McDonald's Farm. The golf tournament this year was rather disappointing. On account of the lateness of the hour it was only possible to play nine holes. The caddies were few and far between, most of them having joined up. However, quite a number of the diehards carried their bags for nine holes in a vain attempt to wrest the championship from Yarmouth. Lou Morton retains the trophy for another year. While the men were working

away with the mashie and niblick the ladies were entertained at a delightful tea at the farm of Mr. Stewart McDonald on the shore of the Bras d'Or Lake, about five miles from Sydney.

Wednesday evening began with a reception at the Yacht Club followed by a banquet at the Y.M.C.A. There were over one hundred in attendance at the dinner, including guests from the Army, Navy, the Air Force, Canadian Medical Association and Judge Neil McArthur of Sydney. Speeches were given by Dr. Archer, Dr. Lynch and the speaker of the evening, Judge McArthur. The judge gave a most inspiring and encouraging address basing his prediction of a happy future for Canada on the hardships and trials overcome by our ancestors. It was given in his own inimitable style interspersed with many amusing stories of Cape Breton. After the dinner some fifty of the younger set attended the dance at the Yacht Club.

The second business session was held on Tuesday morning and as with the first, there was nothing controversial before the meeting. The nominating committee brought in its report and Dr. J. G. B. Lynch retired handing over the chair to Dr. W. Alan Curry of Halifax, the newly elected president.

The first paper was on Quinidine by Dr. K. A. MacKenzie of Halifax. Dr. MacKenzie gave the meeting a comprehensive talk on the place of Quinidine in the treatment of heart conditions, illustrated with case reports and electrocardiograms.

Surgeon Lieutenant Commander J. W. Macleod, R.C.N.V.R., followed with a paper on the use of the Miller-Abbott Tube. He began with a résumé of the body changes due to peritoneal infection; and obstruction, acute and chronic. He showed the tube, mentioned the indications for its use and told of the difficulties sometimes encountered in passing the tube. This paper, given by a physician, was a most valuable contribution to surgical procedure.

One of the most interesting and practical papers of the meeting was that of Dr. R. E. Powell of Montreal. He spoke on the prophylaxis and treatment of venereal disease. In dealing with the treatment of acute gonorrhoeal urethritis he spoke most enthusiastically of the value of sulphathiazole and sulphadiazine. These drugs properly used he said had resulted in 85% of cures. He spoke of the experience at Montreal with the five day continuous drip treatment for syphilis. He told of the unfortunate experiences when this method of treatment was more or less in the experimental stage but assured us that now it was a satisfactory and safe method of treatment.

Dr. R. O. Jones of Halifax gave a paper on Shock Therapy for Depression. He dealt with several methods of inducing shock but gave preference to the use of the electric current. He illustrated his paper with several case histories. His work so far goes to show that shock treatment is a most valuable therapeutic method of relieving depression.

The next two papers did not receive the attention they merited. The hour was getting late and there were rumours in the audience of a lobster boil at McDonald's Farm. Dr. Eric W. Macdonald of Reserve Mines gave an excellent though necessarily hurried talk on the treatment of diffuse peritonitis of appendiceal origin. He dealt with the preoperative care, the nature of the operation, and post-operative care. It was unfortunate there was no time for discussion as his paper covered the subject in a masterly manner, and was of great interest to many in attendance.

Dr. C. J. W. Beckwith of Sydney spoke on the relationship between the Department of Health and the general practitioner. In the short time at

his disposal he outlined the activities of the Provincial and District Health Departments and suggested a very practical working arrangement between health officials and the physician.

The scientific programme was one of the best we have had for many years. There were, however, too many papers and consequently no time for discussion. In future we should either have fewer papers with sufficient time for discussion of each paper or carry the programme through another half-day.

The last social event, the lobster boil on Thursday, was another example of true Cape Breton hospitality. You may have pleasant memories of broiled lobster at Mader's in Halifax, of lobster newburg at the Ritz Carlton in New York, or of lobster thermidor at Scotts in London, but your epicurean education is incomplete until you have experienced one of the famous Cape Breton lobster boils. The day was perfect and the setting beautiful, a lovely field on the shore of the lake at Stewart McDonald's farm about five miles from Sydney. And there was no long period of waiting for the main dish, no toying with the ever present hard roll, the sipping of bouillon or tomato-juice. Our hosts knew we would be tired from the morning's work and that consequently the gastric mucosae would be in no condition to do justice to the meal to come. So appetizers were provided and pleasant conversation flowed until out of the mist of the boiling cauldron appeared one Hector Cy McDonald. Some who visited Cape Breton for the first time might have thought he was two, but he was just one of those massive types of muscle and brawn for which Cape Breton is famous. He was armed with a long pole with a scoop at one end and forthwith from the cauldron he produced lobsters; little lobsters and big lobsters, all lobsters of quality—and such a quantity. There was no calling the head waiter, it was every man for himself. Some used the Pietou style of opening but most copied Cy who demonstrated the Cape Breton technique. Every one managed in some way to open the lobsters. Food for the Gods—hot lobster meat, sprinkled with condiments and dipped in hot butter, with hot rolls, and coffee. Charles Lamb once wrote an essay on the merits of roast pig—would that he had been with us to eulogize the crustaceans.

We are indebted to the Cape Breton Medical Society in particular to Dr. Eric W. Macdonald, their president, to Dr. Lynch our past president, to their several committees and especially to the ladies for a most delightful meeting.

H. G. G.

REGISTRATION

89th Annual Meeting The Medical Society of Nova Scotia

July 8th and 9th, 1942

Y.M.C.A., SYDNEY, N. S.

- Dr. J. G. B. Lynch, Sydney
Dr. K. A. MacKenzie, Halifax
Dr. H. K. MacDonald, Halifax
Dr. L. M. Morton, Yarmouth
Dr. J. E. Hiltz, Kentville
Dr. J. E. LeBlanc, West Pubnico
G. H. Murphy, Capt., R.C.A.M.C.
(C.A.), Sydney
Dr. M. G. Macleod, Whyecocomagh
W. C. MacKenzie, Surg. Lt. Cmdr.,
R.C.N.V.R., St. John's, Nfld.
Dr. F. L. Hill, Parrsboro
Dr. H. G. Grant, Halifax
Dr. F. O'Neil, Sydney
Dr. C. J. W. Beckwith, Sydney
Dr. D. F. McInnis, Shubenacadie
Dr. R. M. Benvie, Stellarton
W. D. Rankin, R.C.A.F., Sydney
Dr. A. L. Cunningham, New Germany
G. H. Graham, R.C.A.F., Sydney
Dr. L. F. Doiron, Digby
C.M. Oake, Surg. Lt. Cmdr., R.C.N.V.R.
Dr. J. G. Cormier, Sydney
Dr. A. W. Ormiston, Sydney
Dr. H. R. Corbett, Glace Bay
Dr. J. C. Morrison, New Waterford
Dr. Lewis Thomas, Halifax
Dr. G. A. Dunn, Pictou
Dr. H. D. Roberts, St. John's, Nfld
Dr. J. S. Breaun, Mulgrave
Dr. W. L. Muir, Halifax
Dr. P. McF. Carter, Sydney
Dr. E. D. Sherman, Sydney
Dr. J. R. McLellan, Sydney
Dr. A. Gaum, Sydney
Dr. J. B. Reid, Truro
Dr. C. B. Crummev, Trenton
Dr. P. O. Hebb, Dartmouth
Dr. W. A. Curry, Halifax
Dr. F. R. Davis, Halifax
Dr. C. MacLeod, Halifax
Dr. G. W. Sodero, Sydney
Dr. W. W. Patton, Glace Bay
Dr. H. L. Knodell, Port Hawkesbury
Dr. W. G. J. Poirier, Cheticamp
Dr. A. I. Mader, Halifax
Dr. A. L. Sutherland, Sydney
Dr. D. S. McCurdy, Truro
- Dr. S. A. Green, Glace Bay
Dr. B. R. Maxwell, Glace Bay
Dr. H. A. Giovannetti, Sydney
Dr. P. E. Belliveau, Meteghan
Dr. P. S. Campbell, Halifax
Dr. J. S. Robertson, Yarmouth
Dr. E. L. Eagles, Windsor
Dr. M. G. Tompkins, Dominion
Dr. H. J. Devereux, Dominion
Dr. D. J. Mackenzie, Halifax
Dr. H. J. Pothier, Weymouth
Dr. A. C. Gouthro, Bras d'Or
Dr. Hugh MacKinnon, Halifax
Dr. C. J. Sparrow, Reserve
Dr. G. J. Wherrett, Ottawa
Dr. J. F. Macaulay, Sydney
Dr. S. R. Johnston, Halifax
Dr. D. B. Wilson, New York
Dr. F. R. Shankel, Windsor
Dr. G. W. Turner, Windsor
Dr. J. C. Wickwire, Liverpool
Dr. D. R. MacRae, Sydney Mines
R. H. Sutherland, Military Hospital,
Sydney
Dr. E. M. McDonald, Sydney
Dr. G. C. Macdonald, Sydney
Dr. R. O. Jones, Halifax
R. M. MacDonald, Surg. Lt., R.C.N.V.R.,
Halifax
Dr. F. G. MacAskill, Glace Bay
Dr. G. G. Simms, Pictou
J. W. Macleod, Surg. Lt. Cmdr.,
R.C.N.V.R., Halifax
Dr. D. W. Archibald, Sydney Mines
Dr. C. P. Brown, Ottawa
Dr. W. I. Bent, Sydney
Dr. M. J. Macaulay, Sydney
Dr. P. S. Cochrane, Wolfville
Dr. R. A. Moreash, Berwick
Dr. S. E. Bishop, Kentville
Dr. A. E. Archer, Lamont, Alberta
Dr. Eric W. Macdonald, Reserve
Dr. R. E. Powell, Montreal
Dr. A. S. Kendall, Sydney
Dr. A. T. Bazin, Montreal
Dr. H. J. Martin, North Sydney
Dr. F. H. McKay, Montreal

Abstracts From Current Literature

VITAMIN D IN TREATMENT OF INFECTIOUS ARTHRITIS. Slocumb, C. H.:
Ann. Int. Med., 1942, 16:241.

Slocumb states that large doses of vitamin D have partially controlled the symptoms of infectious rheumatoid or atrophic arthritis in 7 of 14 cases in which twenty-five courses of treatment (daily dose from 52,500 to 386,000 units for twelve days to fifteen and a half months) were administered. If there was no immediate clinical improvement the administration of the vitamin was continued for at least one and a half months. There was little objective effect. The beneficial effects were only transitory, as the symptoms usually recurred after treatment was discontinued. There was some risk of renal damage. However, the occurrence of toxic symptoms or renal damage was not necessary for clinical improvement to ensue. There was no definite correlation between the clinical improvement and toxic symptoms or renal damage and retention of urea. Gastrointestinal upset was the most frequent warning sign of toxicity, though in one case the urea became elevated without any gastrointestinal upset.

TREATMENT OF BURNS. Penberthy, G. C., and Weller, C. N.: Surg. Gyn.
Obs., 1942, 74:428.

Penberthy and Weller epitomize the present management of the severe burn. The factors influencing their prognosis are general care, combating disturbances in general tissue metabolism, adequate treatment of shock, the correction of hemoconcentration, combating dehydration, raising the blood pressure to normal, restoring and maintaining capillary tone and preventing toxicity. An extensive burn is comparable to a large open wound and deserves rigid aseptic surgical care, thorough cleansing and debridement. Failure to adhere to the basic surgical principles in preparing the burned area, especially in war zones, has led to adverse criticism of the tannic acid method. Uniformity of opinion on the development of toxemia in severe and extensive burns is lacking. On the basis of bacterial invasion of the local lesion and the presence of concurrent infections the authors instituted chemotherapy in 1939 with close clinical observation for complications or unfavorable reactions. There have been no deaths or serious reactions in 75 severely burned patients treated to date by the addition of chemotherapy. The local use of certain sulfonamide derivatives may aid in preventing local infection or in retarding bacterial invasion, and as the drug is absorbed, it may have beneficial effects on septicemia. Local therapy is not without danger, however, as the rate of absorption is not controlled, high blood levels may occur and acetylsulfathiazole crystals may form in the renal pelvis. Further experimental study of local therapy is indicated. The use of a freshly prepared 5 per cent aqueous solution of tannic acid has stood the test of time. The use of a 10 per cent solution of silver nitrate and a 5 per cent solution of tannic acid applied either as a spray or as a jelly is of distinct value. Methylrosaniline in a 1 per cent aqueous solution is preferred for infected burns or for burns of more than

forty-eight hours' duration. Burns involving the perineum, the hand and the foot, those encircling an extremity or those in the region of a joint should be treated with methylosaniline, as the more pliable coagulum obviates splitting of the protective coating over articulations and permits increased freedom. The dye may be used after tannic acid when the coagulum has separated and infection about the edges of the coagulum is present. The combination of methylosaniline and silver nitrate produces a firm coagulum, drying is more rapid and staining is lessened. Also the antiseptic properties of methylosaniline appear to be increased by the silver nitrate. Tannic acid jelly may be used effectively for certain burns of the hand and face, but in other instances it may be best to apply saline compresses or a water soluble jelly to which has been added 2 to 5 per cent of sodium chloride followed by pressure bandages. After the coagulum has separated, early grafting of extensive granulating surfaces has saved the lives of many patients. It should be done as soon as the local lesion is sufficiently prepared to assure success. This also minimizes scarring and deformity.

GALLBLADDER DYSPEPSIA. Moser, R. H.: Amer. J. Dig. Dis., 1942, 9:49.

Moser and his co-workers analyzed the histories of 49 patients who returned to the clinic because of the persistence of dyspeptic symptoms following cholecystectomy for a calculous gallbladder. A comparison of preoperative and postoperative symptoms with the micropathologic study of the gallbladder showed no correlation between the degree of pathologic change and the expectancy of an operative cure. Among the patients having dyspepsia post-operatively many had severe cholecystitis with stones. This fact suggests that there is little or no relationship between the dyspepsia in disease of the gallbladder and the pathologic degree of cholecystitis. The symptoms of 33 patients were considered to be due to an irritable colon, superficial gastritis, chronic pancreatitis, biliary dyskinesia and chronic inflammatory disease of the pelvis. There was nothing in the histories of the 49 patients to differentiate the dyspepsia from that originating from other sources. Only one observation seemed important: If the dyspepsia was associated only with the acute attack, then relief was likely to follow cholecystectomy. While it is not suggested that the diseased gallbladder with stones should not be removed, the patient should be informed of his chances for obtaining relief from dyspepsia. The true cause of the dyspepsia should be determined before operation and, if possible, measures should be instituted to correct it. The colic due to disease of the gallbladder is generally relieved by cholecystectomy; dyspepsia is not and should not in itself be an indication for cholecystectomy.

PREVENTION OF TOXEMIA OF PREGNANCY. Colvin, R. A.: Amer. J. Obs. and Gyn., 1942, 43:183.

Colvin and his colleagues attempted to prevent true toxemia of pregnancy by the administration of thyroid or iodine. Basing their reasoning on the premise that thyroid or iodine limits or prevents a cholesterol-vascular change in the placental vessels and thus lessens the incidence of infarction and toxemia, they have employed this therapy in 273 cases. Iodine proved much more potent than thyroid in preventing true toxemia (as differentiated from vascular disease) of pregnancy. The administration of iodine to patients with vascular

disease of pregnancy failed to lower the already low incidence of toxemia among such patients, but when iodine was administered to normal pregnant women the frequency of toxemia was reduced almost 75 per cent. The ophthalmoscope is a most valuable aid in differentiating true toxemia of pregnancy and vascular disease during pregnancy. A low basal metabolic rate is a predisposing factor in true toxemia pregnancy. Hypercholesteremia, induced both by pregnancy and by a lower basal metabolic rate, predisposes to cholesterol-vascular change in the placental vessels. This change is the probable antecedent to thrombosis, infarction and true toxemia of pregnancy. Lipiodine (Ciba) is a pleasant, well tolerated form of iodine; it does not require an initial or subsequent determination of the basal metabolic rate and, if one tablet is given daily from the end of the third month of pregnancy to full term, an immense reduction in the frequency of true toxemia of pregnancy may be anticipated.

E. DAVID SHERMAN, M.D.

Sydney, N. S.

Society Meetings

HALIFAX MEDICAL SOCIETY

The annual meeting of the Halifax Medical Society was held at the Nova Scotian Hotel, April 29th. The retiring president, Dr. J. V. Graham, conducted the first part of the meeting, and the retiring secretary-treasurer, Dr. Kenneth M. Grant, reviewed the developments of the past year. Officers elected were:

President—Dr. H. A. Payzant, Dartmouth.

Vice-President—Dr. W. G. Colwell, Halifax.

Secretary-Treasurer—Dr. D. M. MacRae, Halifax.

Executive—Dr. E. T. Granville, Dr. A. E. Murray, Dr. A. R. Morton and Dr. A. M. Marshall.

Dinner guests of the Society were twenty medical men of the Army, Navy and Air Force.

VALLEY MEDICAL SOCIETY

The 35th annual meeting of the Valley Medical Society was held at Western Kings Memorial Hospital, Berwick, on Thursday, May 28, 1942, at 3.00 p.m.

Dr. I. R. Sutherland presided. Present were Doctors F. G. Mack, C. W. Holland, H. G. Grant, G. R. Mahaney, J. P. McGrath, H. E. Killam, L. B. W. Braine, R. A. Young, C. S. Bezanson, R. O. Bethune, L. E. Cogswell, P. S. Cochrane, R. A. Moreash and some doctors from the Aldershot Military Camp.

The minutes of the last meeting were read and approved. The financial report was read and adopted.

A minute's silence was observed in tribute to the late Dr. L. J. Lovett of Bear River.

Dr. Sutherland in giving the presidential address stressed the need of the general practitioner knowing more about the treatment of cases involved in airplane accidents and that of the psychological attitude of the flyer.

Dr. Frank Mack of Halifax was the next speaker. He spoke on "Kidney Tumours." He cited several cases. In each case a short history was given. Blood examinations were always made. In some cases a series of blood transfusions were given in order to get the patient in condition to stand the contemplated operation.

In the cystoscopic examination the condition of the bladder mucosa was noted. Each ureteral orifice was examined. The best time for cystoscopic examination is when there is actual bleeding from the kidney. The time of the appearance of the dye on each side was noted. Pyelograms were made and the findings at operation were given. The paper proved very interesting to the meeting and much discussion followed.

Dr. Holland then gave his paper. His subject was "The Treatment of Some Common Cardiac Disorders." This paper was very complete considering

the short time available for its presentation, and contained much information. It provoked much discussion and Dr. Holland was called upon to answer many questions. It is understood that this paper will soon appear in the NOVA SCOTIA MEDICAL BULLETIN.

Dr. P. S. Cochrane gave several case reports on osteomyelitis. In one case when the condition started the patient was a small child and when she was finally free from any bone infection, she had reached maturity. The treatment of this case involved several operations some of which were of a very minor nature.

Dr. McGrath, on behalf of the Society, thanked Doctors Mack, Holland and Cochrane for their papers.

A nominating committee was appointed from the chair. Doctors McGrath, Mahaney and Bezanson formed this committee. They later brought in the following slate of officers for the coming year:

President—Dr. H. E. Killam, Lakeville.

Vice Presidents—Kings—Dr. C. S. Bezanson, Aylesford; Annapolis—

Dr. L. B. W. Braine, Annapolis; Digby—Dr. J. R. McCleave, Digby.

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

Representatives to The Medical Society of Nova Scotia Executive—Dr.

P. S. Cochrane, Wolfville and Dr. C. F. Messenger, Middleton.

There was some discussion as to the advisability of holding meetings during the war. It was decided to hold them since we have meetings only twice a year.

Dr. Grant again urged all those who were not members of the Canadian Medical Association to become members. Some members joined the Canadian Medical Association following the meeting.

On motion the meeting adjourned

Dinner was served in the Rebekah Hall.

R. A. MOREASH, M.D.

Secretary-Treasurer

Valley Medical Society

Personal Interest Notes

DR. and Mrs. J. W. MacIntosh and family of Halifax have been visiting the latter's parents in Sydney, Dr. and Mrs. MacLaughton. Dr. MacIntosh has returned to Halifax and his family will spend the summer in Cape Breton.

Dr. W. O. Coates of Amherst has returned from an extended visit to the Canadian West. En route home he attended the Canadian Medical Association convention at Jasper Park Lodge, Alberta.

Dr. B. Roy Maxwell (McGill, 1938) of Glace Bay began duties July 1st as radiologist for a group of Cape Breton hospitals including Glace Bay General Hospital, Hamilton Hospital, New Waterford General Hospital and Harbour View Hospital. Dr. Maxwell has been taking a special course in radiology at the Royal Victoria Hospital, Montreal.

The BULLETIN extends congratulations to Dr. and Mrs. J. R. MacLean of Halifax on the birth of a son, John Raymond, on June 7th.

Dr. and Mrs. J. G. MacDougall of Halifax have purchased the residence of Mr. and Mrs. L. D. Murray, 17 Parkwood Terrace, and expect to move there in August.

Dr. and Mrs. Hazen C. Mitchell of St. Stephen, N. B., were recent guests of the former's brother, Mr. and Mrs. L. E. Mitchell, Imperoyal. Dr. Mitchell graduated from Dalhousie in 1940, and the young couple were married very recently.

The marriage took place in Halifax on June 20th of Shirley Marie, only daughter of Dr. and Mrs. H. W. Kirkpatrick of Halifax and Dr. John Roland Kerr, youngest son of Mr. and Mrs. R. Gesner Kerr of Fox River, Cumberland County. Dr. Kerr and his wife left on a trip through the Province and are now residing in Halifax for the summer. Dr. Kerr graduated from Dalhousie in May, 1942.

Dr. Samuel Marcus addressed the Registered Nurses' Association, Lunenburg County Branch, at their annual dinner held at the Fairview Hotel, Bridgewater, June 19th. Dr. Marcus spoke on the subject "The Status of Women in a Democracy." Dr. H. A. Fraser, representing the medical profession, also spoke briefly.

"Mechanical Ears," prescribed like glasses, new discovery, by Howard W. Blakeslee, Associated Press Science Editor, Atlantic City, June 10.—New mechanical ears, the start of a medical art by which doctors can write prescrip-

tions for hearing aids the same as they now prescribe eye-glasses, where shown to the American Medical Association to-day.

Six types of these artificial ears were shown, the fruits of discoveries of the last two years, which include vacuum tubes the size of the end of lead pencils and alloys which pick out the sounds a deafened person needs.

The basis of the new art is a report by the United States Public Health Service showing that the country's more than 10,000,000 hard-of-hearing persons fall into six broad classes, each of which can be fitted for its special needs. Men, this study shows, mostly hear low tones well, and are likely to be deaf only to medium high tones. Women mostly are deafened through all ranges of sound. Each class is further divided into three, one needing sounds amplified 1,000,000 times, the other two much less.

The tubes have some war value due to standing rough handling without breaking. The tubes make two things possible—one, unlimited amplification of sound; two, amplification of the sounds in which a person is deafened more than those he still hears well.

These sounds reach the ear through a diaphragm, like a doll size telephone receiver, or by vibrating against the bone behind the ear. In either case, the vibrating metal plates are made of alloys which transmit some sounds better than others, and the plates are chosen to fit the deaf person's needs. *Halifax Mail*, June 10, 1942.

The marriage took place in Montreal on April 25th of May Elinor Thompson, daughter of Mr. and Mrs. Brook Thompson of Westmount and Dr. Donald William Ramsay, son of Rev. Dr. and Mrs. J. A. Ramsay of Moncton, N. B. Mrs. Ramsay before her marriage was a member of the staff of the X-ray Department of the Montreal General Hospital. Dr. Ramsay graduated from Dalhousie in 1938, following which he spent three years in post-graduate work in the Montreal General Hospital, and has been practising in New Glasgow for the past year.

Dr. and Mrs. F. D. Charman of Truro spent a week in Montreal the latter part of June.

Qualify to Practise Medicine

Dr. J. Fenton Argue, Registrar of the Medical Council of Canada, has made public the names of 117 men and women who were successful in council examinations at Montreal and Halifax and who have qualified to practise medicine. The successful candidates included:

Halifax

Prince Edward Island—Wm. Cameron Annear, Lower Montague; Donald I. Campbell, Red Point; George S. A. Inman, Summerside; Reginald I. McKenna, Oyster Bed Bridge; Israel Rachmelis, John A. Ritchie, Charlottetown; E. Leigh Ramsay, Northam; Lewis B. Woolner, North Rustico.

New Brunswick—Eli Davis, Saint John; S. Allan Hopper, Moncton; Roderick S. Ideson, St. Andrews; James S. Jamieson, Campbellton.

Nova Scotia—Robert W. Begg, A. Browne Crosby, Edward M. Fogo, H. Gordon Quigley, Donald S. Robb, Ian S. Robb, Henry B. Ross, Halifax; Douglas C. P. Cantelope, Lunenburg; Peter D. Ferguson, Cleveland; J. Albert Fownes, Baddeck; E. James Gordon, Melvern Square; R. Cedric Griffin, Antigonish; Waldo E. Hirtle, River Hebert; John R. Kerr, Fox River; Wilfred Leith, Archibald A. McVicar, Arthur W. Ormiston, Sydney; James W. Long, East Dalhousie; Frederic C. Macarthur, Stellarton; Austin A. Macdonald, Neil's Harbour; James G. MacLean, Glace Bay; D. Russell MacRae, Sydney Mines; Gerald B. Nichols, Aylesford; E. Paul Nonamaker, Mahone Bay; Killem Seaman, Liverpool; Arthur G. Shane, J. Raymond Van Horne, Yarmouth; James H. Watson, Truro; R. Clarence Young, Pictou.

Montreal

Nova Scotia—Herbert R. Giberon, Sheet Harbour; John B. Lynch, Walter H. Martin, Sydney; Emile R. Melanson, Ste. Anne du Ruisseau; Miriam F. Miller, Carleton.

Prince Edward Island—T. Muncey Tanton, Summerside.

Dr. O. Carvell Macintosh and Dr. Gordon Hawkes, Toronto, are holidaying at Jintown, Antigonish County. Dr. Macintosh graduated from Dalhousie in 1940, and recently completed a year's work in pathological surgery at the Banting Institute; he will shortly enter the R.C.A.F.

Dr. E. M. Fogo of Halifax, who graduated from Dalhousie in May, 1942, has been appointed to the post of Assistant Commissioner of Health for Halifax.

The BULLETIN extends congratulations to Dr. and Mrs. Matthew Allison Curry of Rothesay, N. B., and formerly of Halifax on the celebration of their fiftieth wedding anniversary on June 14th. Dr. and Mrs. Curry made their home in Halifax for many years, where the former practised, and was also one of the oldest members of the medical college staff at Dalhousie. At the time of his retirement he officiated at the opening of the new Dalhousie Medical-Dental Library. He was also one of the oldest members of the Victoria General Hospital Board.

OBITUARY

The death occurred on June 21st of Charles Galitzan Marsters of Bass River at the age of fifty-two when his car ran off the highway into a ditch at Portapique. Dr. Marsters suffered a fractured skull and other injuries and died immediately following the accident. He graduated in medicine from Dalhousie in 1920 and served overseas with the Canadian forces in the First World War, going over with a Dalhousie contingent. He practised in Montserrat in the West Indies for a time and in Bass River for the last eighteen years. He was keenly interested in athletics, and earlier in his life, was active in baseball, and throughout his residence at Bass River did much to aid the development of baseball among the boys. He was also enthusiastic as a tennis player. Dr. Marsters married overseas, his wife being a native of Aberdeen, Scotland. She survives together with two daughters, Elizabeth and Margaret, and a son, Ashley, at home. Mrs. Helena B. Walker of Regina, Saskatchewan, is a sister.

Black Fever

Cured Five Times as Quickly by British Research Chemist's Discovery

ROBERT WILLIAMSON

THOUSANDS of children will be saved from a lingering death by black fever as the result of the discovery of a new drug, *diamidino stilbene*, or M. & B. 744, by British research chemists.

Black fever is prevalent on the southern and eastern coasts of the Mediterranean, in Morocco, Turkey, Yugoslavia, Palestine, the Sudan and even as far afield as India, Malaya and South America. Most of its victims are children between the ages of one and three, and in some areas as many as 8 in 10 of them die.

A closely related drug is being tried on cases of sleeping sickness in West Africa, and preliminary results show that there 'diamidine' compounds are effecting rapid and spectacular cures.

The disease, of which there are various types, is caused by the infection of the spleen with a body known as *Leishmania donovani*. Previously treated with antimony, experiments have shown striking results from the new drug. It was developed by Dr. Ewins, of May & Baker, Ltd., after long research by Professor Warrington Yorke, of the Liverpool School of Tropical Medicine, and Dr. H. King of the National Institute of Medical Research, had shown that diamidine compounds had important effects upon the organism which causes the disease. The discovery is thus a triumph for the collaboration between British commercial pharmaceutical concerns and academic research workers.

The new drug, which gives its better results with a fiftieth of the dose in a fifth of the time and at a tenth of the cost of the other drugs, is injected into the veins, the dose being calculated on the body weight of the patient. It must be administered slowly to avoid a fall in the blood pressure.

One of the first cures was that of a Hindu seaman age 26, from Calcutta, who given a total of 400 mgm. over eight days was able to leave hospital six weeks later.

In another case of Sudanese natives treated at Khartoum, the medical officer reported that after treatment his patients "had been clamouring for their discharge from hospital, and in fact had used it only as a sleeping place from which they issued daily on a round of revelry and generally beating the place up".

The doctor added, "while I personally pay more attention to weight records, blood counts and spleen punctures, the fact that these patients were able to behave in this fashion is regarded locally as convincing evidence that they have been very effectively restored to health and strength."

TEN TIMES QUICKER

Britain Speeds Up Production of Surgical Instruments

Surgical instruments for the battlefield and for civilian hospitals are being made much more quickly to-day by new methods worked out in a British factory.

While surgeon's knives and specialised delicate instruments are still hand-forged and receive individual treatment, most of the essential instruments at present in use are standardised, especially as nearly all of them are for the British and Russian Governments.

The many varieties of surgical forceps can therefore be made from drop forgings. Uniformity in these stampings is the aim so that the instruments may be machined and set, and, after minor adjustments from a skilled operator, turned out with perfect workmanship.

Apart from a considerable reduction in cost, production is now ten times as quick. Instruments for Russia have a special coating of copper as an additional protection against corrosion.

GARDENS OF ENGLAND'S KINGS

Growing Herbs for Chemists and Housewives

Deadly nightshade (belladonna) is being cultivated at Kew's Royal Botanical Gardens in Surrey to let Britain's manufacturing chemists have the 2½ tons of the medicinal herb needed for rheumatic ailments. Kew is also growing colchicum another anti-rheumatic herb, from bulbs collected by Boy Scouts in the English countryside.

Once the private gardens of England's kings, Kew has also set out to show the British housewife what can be done with the traditional English herbs. Dill, fennel, sage, chervil, marjoram and thyme are some of the many herbs now being grown there, and all of them provide attractive flavourings for soups and other war-time dishes.

In the midst of its 288 acres, where 24,000 different species of plants from all climates flourish as they do at home, Kew has now a regulation 10-rod allotment with a woman gardener in attendance to help amateur food-growers with their problems of raising potatoes, swedes, parsnips, carrots, onions and other vegetables.

Facts from: The Royal Botanical Gardens, Kew.

Dr. Harvey Clare, Medical Superintendent of Homewood Sanitarium, Guelph, has retired owing to ill health. Dr. Clare spent 19 years in psychiatric practice in the service of Ontario Mental Hospitals, and the last 17 years with Homewood. His methods of diagnosis and treatment gained him an enviable reputation as a psychiatrist, and his opinions were widely sought, often by the Dominion Government.

Succeeding Dr. Clare, Dr. F. H. C. Baugh has been appointed Medical Superintendent. Dr. Baugh has been prominent in psychiatric work for many years.

Dr. A. L. MacKinnon, also prominent in psychiatric work, has been appointed Assistant Medical Superintendent.

In 1941 Dr. MacKinnon was awarded the Meyer Memorial Prize for his paper on "The Psychoneuroses" delivered before the Canadian Medical Association.