

Odds and Ends from Fifty Years in Clinical Medicine.

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INTRODUCTION

I have selected a series of cases taken at random, but illustrating diseases or symptoms from the various systems of the body. A few of them are comparative rarities, a few illustrate diagnostic puzzles we are constantly meeting, a few point the vital importance of not neglecting so-called *minor* symptoms in our examination of a patient. None are without, I think, some small points of interest, but my readers must decide that for themselves. They vary from thirty years back to almost the other day in their occurrence, and were all seen either in my own practice or in consultation with various colleagues in this province. A few were Pensions Board investigations

The Causes of Obscure Fevers. Hepatic Syphilis.

WHERE is no more fascinating problem in clinical medicine than the investigation of the causes of a persistent fever with few or anomalous physical signs. So common are the disorders of the *drainage* system of the liver that we are apt to forget that fever may be an accompaniment of a string of organic affections of the organ itself running all the way from a mild and transient hepatitis to a primary or secondary cancer.

Over thirty years ago a man of forty was seen complaining of symptoms which had led to a diagnosis (in New York) of pulmonary tubercle with gloomy outlook. There were present cough with moderate expectoration, pain in right chest, loss of weight, night sweats, anorexia and a persistent low grade fever at night. Habits were good; he was an abstainer and syphilitic infection was denied, though a long healed gonorrhoea was admitted. Several months duration. No tubercle bacilli were found on examination of sputum.

The liver edge was palpable below the costal margin—the slight enlargement being most marked in left lobe in the epigastrium and was smooth and definitely tender. There were no palpable spleen nor lymph nodes. After a month's treatment marked by slow but steady deterioration the history and findings were revised. A slightly tender node was now found to have developed at one costo-chondral junction. Syphilis was at once suspected and a history of infection ten years before was forced from a reluctant patient. Under treatment by mercury and K. I. the fever disappeared in three days. He gained twenty-two pounds in weight within six weeks, and he remained free from his other symptoms for many years, with only brief preventive courses of similar treatment. The patient died of cancer of prostate after twenty-six years.

To-day our difficulties are greatly simplified in such cases.

I think that it is mainly in the cases where the liver is affected that *fever is most constant, but *any* form of visceral (tertiary) syphilis may be accompanied by fever which may be of any type, constant, intermittent or remittent.

One would still prefer to treat a similar case with Hg. and Iodides for obvious reasons.

Fever of Obscure Origin Chronic Gonococcal Salpingitis.

About twenty years ago the writer was asked to see in consultation a married woman of young middle-age to try to clear up the cause of a low grade

fever of about two months duration. The other symptoms were almost negligible; but she was just beginning to show some fatigue symptoms and lose a little weight. The history showed that she had been married for some years with one pregnancy only, the child dying at birth. Within three months of the consultation she had been examined by two experts, an internist and a gynaecologist of note and passed as sound.

The temperature chart gave a constant night reading of 99.5—100.2 with some night sweats. There was a slight hypochromic anaemia. Findings otherwise negative. A careful physical examination brought out only one positive finding, viz. a marked point of tenderness in right iliac fossa rather lower than the appendix area, but the right tube was not definitely palpated on bimanual examination, nor any special tenderness elicited.

Complement fixation tests were requested: that for syphilis was negative and for gonorrhoea strongly positive. In view of the earlier negative findings the writer's confidential diagnosis of gonococcal salpingitis was received with some scepticism. Later, as the fever continued, a New York opinion was obtained. The gynaecologist consulted, gave it as his opinion that the tubes were the hidden focus of infection and advised operation. This was carried out on her return to Nova Scotia and revealed (a) double hydrosalpinx, (b) marked displacement upwards of right tube into iliac fossa. Resection was followed by disappearance of the fever and recovery of health and weight. It is well to bear in mind that a negative gonorrhoea complement fixation test is useless, but a *positive* may be decisive in diagnosis.

Acute Gonococcal Salpingitis and Ectopic Pregnancy

A girl of sixteen was sent from the country to the care of Dr. W. N. Reh-fuss at the Bridgewater hospital, with the diagnosis of acute appendicitis.

The initial examination threw doubt on the diagnosis and the apparent urgency of the case, and the discovery of a profuse gonorrhoeal discharge with tubal tenderness changed the label to acute gonorrhoeal salpingitis. About the fourth day of hospitalization it was noted at the morning visit that the girl's condition had changed for the worse. She was pale and anxious looking and sweating, and the pulse rate had rapidly risen. Prompt operation revealed blood shining through the peritoneum and beneath it a ruptured right-sided ectopic pregnancy still oozing freely. Both tubes were inflamed and evidently infected with gonorrhoea. After resection and removal of embryo the convalescence was not particularly stormy, and she left hospital in good condition.

In Copenhagen Krindtson recently observed five cases of *tendovaginitis of flexors of fingers*. In some the recognition of the gonorrhoeal character of the inflammation would have been impossible but for the *complement fixation test*.

Interlobar Empyema

Most of us have our particular bug-bear in matters medical and the writer is no exception. Three times, with an interval of years between them, the problem of a left-sided *interlobar empyema* with *apical* involvement has given him and his associated colleagues an infinity of worry and difficulty. They all occurred as metapneumonic complications in young and previously

healthy subjects—all had prolonged and stormy courses with two or three months in hospital—all recovered with little or no residual pathology, and all, one is pained to admit, developed a broncho-pulmonary fistula during the course of the illness. The internal rupture in one case probably occurred within a fortnight of the first pneumonic symptoms; in one it happened a few days after high external drainage had been instituted, from a block in that drainage, which was too long delayed owing to the repeated failure of needling to demonstrate pus; and in the third case it occurred well on in the illness from the handicap of a coexistent acute fibrinous pericarditis, and the serious general condition. Although nature heals a good proportion of these fistulae, the occurrence of an internal rupture should by no means prevent the establishment of external air-tight drainage as soon as pus can be located, whilst posture may be utilized as the particular conditions suggest. The degree of shock varies greatly—one case nearly choked to death on rupture, whilst in another the symptoms were so mild that it was not easy to assign the precise moment of the accident. In two out of these three cases the tentative diagnosis was correctly made and explorations carried out for some time before the broncho-pulmonary fistula was apparent. The diagnosis is often difficult. Even X-ray may not be helpful. In the last case there was such general blurring over the left chest running into the cardiac shadow in the mid-zone that we were left in the air. Translation of plates being further obscured by the presence of an *extensive fibrinous pericarditis*. The physical signs are often very puzzling, and exploration by needle in the risky upper zone of lung fails to draw pus. That these risks are not imaginary is proved by a case told me by the late Theodore Janeway of New York. In needling for pus in an apical empyema the subclavian vein was unfortunately punctured with fatal results.

The difficulties may be so great that, with the picture of persistent sepsis and loss of weight and strength, as happened to us in the last case I encountered, it may be necessary to do a real exploratory operation in left axilla and resect a bit of fifth rib over the line of the fissure. This manoeuvre with careful finger exploration revealed pus deep in fissure and a loculus which apparently capped the lung apex as well. Slow convalescence to recovery followed.

In diagnosis in a case like the last with one's usual help from X-ray absent or quite indeterminate, and with serial negative punctures what can one do? The condition must be borne in mind and constantly considered in every metapneumonic "hang-fire" with blood and chart pointing to continuing sepsis.

A more or less triangular area of flatness in the upper back (scapular area), or high in the axilla with rather sharp line of demarcation is one of the most constant signs. It is recommended if pus cannot be demonstrated and its presence can be reasonably assumed to take the bull by the horns and *explore* the line of the fissure deliberately. In the mid-axillary line this crosses at the level of the fifth rib which is cut down open and the area of the fissure and *above* this level (to reach an apical abscess) is carefully explored by finger or long blunt forceps. The pleura must be well adherent of course so that uninvolved areas are not broken into. In case *three* this proved finally successful and recovery followed after two months in hospital with no special residual damage from the extensive fibrinous pericarditis. The method seemed much safer than repeated blind exploration in danger areas.

Pneumococcal Peritonitis.

A girl of nine was recently sent into the Bridgewater Hospital under the care of Dr. W. N. Rehfuss with the diagnosis of ruptured appendix with peritonitis. An obviously acute abdomen operation was done without delay. Extensive generalizing peritonitis was present most intense in the lower zone, but the appendix did not appear to be specially involved and the yellow-green colour of the exudate along with the absence of odour strongly suggested another causation. Examination of the pus showed pure culture of pneumococcus. The writer saw the case on fifth or sixth day of illness—there was still a free discharge of pneumococcal pus from the abdominal incision, but the child still running a rather high continuous fever with a rapid pulse rate did not look as desperately ill as one expected at that stage of the disease.

On the morning of eighth day after onset an attempt at crisis occurred, the pulse rate falling by twenty-five beats and the temperature three degrees, although it did not come to normal. The child continued febrile and the wound continued to discharge pus, though in lessening amount.

In beginning of third week a blood picture showed still a moderate leucocytosis, with a left shift and no return of eosinophiles. It was inferred from the picture that the fight against the infection had not yet indefinitely turned in the patient's favour. This view was justified as she continued febrile and gradually the signs of a residual pelvic abscess appeared, some tenderness and bulging being detected in the rectum. At this stage the writer lost touch with the case and has not yet heard the final result.

A few comments on this condition seem worth while. It is not common, yet not a particular rarity. It is much more common in female children between five and eight years. Invasion is most probably by way of the fallopian tube. It is as often as not primary, i.e., no other pneumococcal focus is in evidence at its start or during its course. It has a high mortality, 50%, whatever treatment is adopted. It is usually discovered accidentally after operation as in present case, but the diagnosis *can* be made in many cases if the condition is always borne in mind especially in girls and children.

It is said to be usually accompanied by diarrhoea (unusual in appendix cases), but this assistance was not present in this case. The temperature tends to be more persistently elevated and rigidity less marked than in other types. A crisis may occur from fifth to ninth day as in pneumonia. They do not look as septic as in other peritoneal infections. In most cases, if recognized in time, operation is better withheld (recent Year Book of Medicine) until a residual well-localized peritoneal abscess forms. The general treatment of pneumococcal infections is indicated.

Painless Coronary Thrombosis.

So constant is the association of coronary clotting with severe *pain*, that it does not seem generally known that the accident may occur, even in its more severe grades, without pain being present at all. One might guess that this happens in 1%—2% of severe cases. Four years ago the writer saw with a colleague in the Halifax Infirmary such a case on the second or third day of a sudden illness in a stout, middle-aged woman. The presenting symptoms had been marked prostration with *sudden onset of severe dyspnoea*, but without any complaint or acknowledgment of *pain*. There was orthopnoea, cyanosis,

feeble rapid pulse, rales over both lower lobes, and marked prostration, distant faint heart-sounds, and slight tenderness of liver margin. Her previous health had given no evidence of disease and she was stricken whilst attending to her family duties including the care of several children. A tentative diagnosis of coronary thrombosis was agreed on. Despite the absence of pain proof was forthcoming in due time by the appearance of *fever* for two or three days, *leucocytosis with left shift*, and a transient *pericardial friction*. She gradually improved under complete rest and finally left hospital in fair condition. This gain in health and strength was maintained and she is now carrying on her household duties without serious discomforts. At various times she was closely interrogated as to the pain symptom by self and colleague, but could never be got to admit that actual pain was ever experienced either at the onset of the great dyspnoea or during her stay in hospital. That one of the main vessels was involved, was not doubted by either of us who witnessed the great gravity of the early symptoms.

A word of warning on the use of morphine for the pain of coronary thrombosis. Its *free* use in full doses is so often stressed as important. Some of us have a suspicion that *the last dose given*, under the stress of an emergency with anxious relatives spurring us on, may in fact *have turned the scale against the patient*. It is *not* necessary to kill *all* the pain, but merely to make it easily bearable. It should be remembered that opium and its alkaloids at first *stimulate the vagus*, and a great increase of vagus tone may not be desirable in such a critical condition.

As to digitalis, the writer avoids this drug at all stages of the illness if he possibly can do so. Risks of dislodging a mural clot seem always great and in the middle stage of the attack stimulation *must* increase the chance of ventricular rupture. As a *preventive* small doses of *thyroid*, in an attempt to regulate the underlying serum-albumin, serum-globulin balance of the blood plasma, appeals to the writer as worth more extensive trial.

Vascular Crises

Ever since the classical paper of Pal of Vienna came to his notice the writer has been interested in the varied phenomena resulting one presumes from intermittent local spasm or claudication of arteries.

Although this view of focal arterial cramps has been generally accepted, some authorities, e.g. Kinnear Wilson in England, demur to this explanation and prefer, if I rightly understand their view, to substitute a simple impaired *vis a tergo* in what is usually a diseased vessel to explain the altered function in the affected part. The following case is an interesting example of these so-called vascular crises.

*A. An apparently healthy military officer of about forty had been curling in cold, damp weather. He got thoroughly chilled and uncomfortable. On returning home he had a scratch meal in which tinned fish of some sort figured. He slept badly and could not get properly warmed up. On dressing next morning he was suddenly seized with loss of power on right side and found he could not speak to his wife. Within two hours of attack was seen in consultation with two colleagues. He once or twice during that time had recovered at least partially the power in right arm and leg and was able to speak with fair distinctness. He was a healthy looking rather lean and muscular man—of rather swarthy type. His previous medical history was negative except for a family history of *migraine* paternal and maternal. He was said never

to have had migraine himself and no such history could be elicited. He was now clear headed but showed slight signs of a residual right haemiplegia. There was still a tendency to extensor plantar reflex on right, and the right side of the body and right limbs were distinctly warmer than left, and the blood pressure on right side was 120 systolic as against 140 on left. The viscera all seemed healthy. The condition soon cleared up under expectant treatment.

A few weeks afterwards he informed us that now for the first time he could "tell you all about migraine". He had suffered a classical attack accompanied by homonymous haemianopia.

The primary haemiplegic attack due to transient spasms of the middle cerebral had now transferred itself to the posterior cerebral. One might translate the episode thus. A subject with a natural tendency to hepatic insufficiency gets a "liver chill", eats a thoroughly indigestible meal (tinned fish), the liver fails to handle the dose sent up to it via the portal vein and permits toxic substances capable of inducing arterial spasms to leak through to the general circulation. The migraine heredity supplying the spasmogenic element.

Vascular Crises "Abdominal Angina".

B. About twenty-six years ago an elderly farmer was seen in consultation. His complaint was of attacks of violent abdominal pain attended by bloating of the stomach: attacks which apparently had little relation to meals but were more closely related to physical exertion or emotional upsets. The duration of the symptoms a few months.

The patient was a lean, raw-boned, rugged-looking man whose physical examination revealed no very gross pathology, except on the circulatory side. There were signs of *marked generalized arterio-sclerotic thickening* and both systolic and diastolic pressures were raised. There was a quite moderate enlargement of heart without much else worthy of note. The writer was fortunate in witnessing an attack in which there was sudden onset of severe gripping pain in the epigastrium, definitely not substernal whilst the stomach rapidly distended with gas and could be seen and percussed with ease, the bowel small and large being quite free from the bloating. When 1=100 gr. *nitroglycerine* was placed in the sublingual space, in a brief time the swelling subsided altogether with the bringing up in explosive fashion of a great amount of gas and relief of all pain. After a review of all the circumstances a diagnosis of so-called abdominal angina was made and treatment was prescribed on these lines. The result of treatment was highly satisfactory. Vaso-dilators, iodides and more rest were the chief points. The attacks were soon controlled and he remained in satisfactory health for some years, when he was lost sight of. What was the mechanism involved? The coeliac axis at the flexion point of the body is a known site-of-election for arterio-sclerotic changes. It was surmised that such changes, either in the short trunk vessel or in its *coronary branch*, were the site of intermittent spasm (or following Kinnear Wilson et al) of defective flow from narrowing under calls for a better blood supply. A temporary ischaemia of the stomach resulted followed by a rapid paralytic gas distension of the organ. The prompt relief under nitroglycerine strongly supports this view.

A few years later the writer saw the report of a Vienna case with a similar clinical picture in which the diagnosis of sclerosis of the coeliac axis was made before death. At autopsy gross disease of this vessel was the main pathologica₁

finding and was taken as fully explaining the symptoms so closely resembling those in the above noted case.

The syndromes of *visceral* arterio-sclerosis seem to have attracted much more attention from continental writers than from the British and American schools. Difficult as they may be to translate they are well worth bearing in mind in cases presenting obscure abdominal symptoms.

The Technique of Abdominal Examination.

Many years ago, through the illness of a colleague; now deceased, I was asked to look after a case of his just admitted to the Victoria General Hospital.

On examination of this young divinity student, from the classical *Murphy sequence* of symptoms at the onset, plus rather *slight*, but as it seemed to me, *definite* physical findings, I concluded he had acute appendicitis and at once called one of our then leading surgeons in consultation, a man known to possess a fine pair of hands. My points apart from the history were (a) slight rigidity, (b) slight *rectal* fever, 99.5°, (c) slight leucocytosis, 10,000+. To my surprise my colleague could not agree that there was a surgical emergency, and did not wish to operate, and took the same view at a second review which I called for within another twenty-four hours. As I remember it the chief point of contention was the presence or absence of muscular guarding—the man's pulse was only about sixty and regular.

I was so worried that late at night I made an extra visit, and now the urgency of the case was so evident from the pinched anxious look (pulse still under seventy) that I hastily looked round for the first surgeon available. The late Dr. Chisholm at once removed a much swollen, stinking and entirely gangrenous appendix which was not yet ruptured and closed the wound *without* drainage. Uneventful convalescence followed. It was found later from relatives that he had always had an abnormally slow and regular pulse—congenital sinus bradycardia.

For many years in the attempt to establish presence of *slight* degrees of abdominal rigidity the writer has used the method advised by the late *Mr. Barker of London* in preference to the usual flat fingered technique. In suspected appendix the tip of right index finger is gently pushed into skin and subcutaneous tissue until the muscular layer is reached and then a gentle little push is given to test the real degree of tension. The order is from left lower rectus to left upper rectus, then right upper rectus and finally right lower, the suspected area. With practice one finds that even a faint increase of tension in right lower segment is clearly brought out. Patient has eyes closed and is not questioned. Degree of pain elicited may also be judged by the facial response. I believe that the superiority of Barker's method was responsible for difference in our findings, certainly not any lack of skill on the part of the surgical palpator. To-day one would as routine have tried for Britain's sign (Philadelphia School). In the gangrenous but unruptured appendix in the male there is claimed to be a sharp, decisive retraction of the right testicle right up to the ring on pressure over *McBurney's point* (or a little above it if appendix is high). In "*American Journal Medical Sciences*" the original article quoted about three hundred cases where this sign was checked up with the pathological findings. It was summed up as generally reliable.

The Cantile Tuning Fork in Examination of Liver and Left Heart.

In the *examination of the liver* enlargements are generally established with ease. *Diminution of size* is not so simple. For a long time the writer has used the big G* tuning fork bearing the name of Cantlie (Hong Kong and London) to map out the whole outline of the liver. The stethoscope is kept over the known liver area and during auscultation the vibrating fork is brought by degrees from surrounding organs above and below noting and marking the points where the note rises strongly as it comes over the solid liver. It is a vast improvement in accuracy and ease over the complete percussion of the liver. One gets, as usual, speed and precision by practice.

Through neglecting his tuning fork the writer fell down on the real diagnosis of a difficult case in which the marked shrinking of the liver discovered at autopsy might easily have suggested the lethal complication of cirrhosis, viz. thrombosis of the portal vein which was found to be present.

The only other point I might refer to is the neglect of systematic auscultation of the abdomen. Time does not allow of reference to illustrative cases.

Acute Traumatic Hyper-Thyroidism

So important an organ as the thyroid surely demands one little case. Here it is. Some years ago the writer saw with his friend, Dr. Rehfuss, a young and vigorous man who had recently suffered a sharp blow at base of neck (I think it was from a base-ball). The swelling and pain in the neck was followed promptly by a state of extreme nervousness with palpitation and some neck swelling. At the time of my examination he showed definite bilateral exophthalmos, a rapid pulse, marked tremor and sweating. The thyroid was moderately enlarged, irregular in outline and still somewhat tender on firm palpation, especially over the right lobe. There was marked general "nervousness". The diagnosis of rupture of some of the vesicles by violence was obvious. Recovery under rational expectant treatment was gradual, but, I believe, complete. I remember no similar case in my limited experience.

Hodgkin's Disease.

1. Some years ago Simmers of New York in an important review of this subject ("American Journal of Medical Sciences") stated his conviction that in Hodgkin's Disease the *internal glands are always the first affected*, however, much these may be overshadowed by the later growth of the superficial groups.

In 1920 the writer was asked by his friend, Dr. Crockett (later Inspector of Sanatoria for Scotland), to examine with him a case just sent in to the Bridge of Weir Hospital as tuberculous. We found a middle-aged ex-soldier in fair physical condition whose presenting symptom seemed to be cough plus a degree of dyspnoea out of all proportion to what one would expect in early tubercle. In addition, there were no *gross* changes to be quickly detected in the upper lobes. A small group of glands, painless, discrete, and non-adherent to skin was noted on one side of neck. As facilities were right at hand, he was put before the X-ray screen when quite a massive shadow showed up in the central area of mediastinum. Further investigation of blood, etc., and biopsy on an excised gland confirmed our mutual snap diagnosis of Hodgkin's Disease. The sputum proved at all examinations free from tubercle bacilli. It is wise in eliminating Hodgkin's to examine *all* parts for enlarged glands.

Screen and plate the chest and palpate the abdomen with care for possible early visceral enlargement.

This case is introduced for the benefit of the pathologist as its terminal events illustrate what I gather is one of the rarest of occurrences, viz. the picture of *gradual compression to the point of obliteration of the superior mesenteric artery*—about nine have been clearly described.

2. A woman of sixty-five was observed closely from the detection of the first group of glands on the right side of the neck to the time of her death at seventy. A trifle older than the oldest patient in Sir William Gowers original list. The main interest of case centres on the terminal stages when a mass of glands had formed a tumour in upper central abdomen giving rise to much pain and disorder of bowel action.

At the last she developed for a week an insuperable constipation, succeeded then quite abruptly by a week of uncontrollable diarrhoea. This gradually became blood-stained and for the last two days of life she was passing small amounts of almost pure blood.

At autopsy a mass of glands was found to have compressed the middle mesenteric vessels to the point of obliteration. The area of distribution of the artery was indicated with anatomical precision by intestine deeply discoloured and gangrenous in parts, and the lumen was filled with dark grumous looking bloody material. The earlier glands showed the characteristic (Lucy Reed) picture of Hodgkin's Disease, as did the early ones (biopsy) in the neck.

Osteo-arthritis of Spine with Nerve Symptoms.

To label a painful condition in the arm a *brachial neuritis* or pain in the distribution of the *sciatic* nerve "*sciatica*" and treat it on stereotyped lines is often bound to lead to disappointment and loss of repute. To-day one regards the skillful and thorough investigation into the exact cause or causes of these conditions as a test of one's knowledge of clinical medicine. It is only of late years that our knowledge of the peripheral symptoms caused by interference with the emerging nerve roots by osteo-arthritis plus fibrositis of the spine in the later periods of life has been more or less clarified. The writer has in mind two elderly men still active in business and first cousins who well illustrate the type of disability that may result from these spinal changes resulting from age plus undue postural stresses over long periods.

A. Five years ago a man of seventy-one was seen complaining of pain, numbness, tingling and other paraesthesiae of hands and arms. By exclusion methods attention was soon concentrated on the cervical spine. His posture was characteristic—head poked forward and shoulders humped. His occupation, aided by a marked myopia, had established and crystallized this minor deformity.

Infections and other elements could be excluded.

The X-ray of upper spine showed marked lipping and other osteo-arthritic changes in cervical region with especial narrowing of the intervertebral foramina between C. VIII and D. I. Several segments were affected but the chief sensory involvement was in ulnar area of hand and arm and chiefly pain and numbness. There was not much difference between the two sides.

General examination showed a man in good health considering age.

Battle Creek rather ignored the spinal element in this case. Later Penfield of Montreal agreed in the diagnosis. Varied methods of treatment in-

cluding heat, manipulation, massage, etc., gave varying degrees of relief with tendency of course to relapse.

B. The second case, seen recently in consultation, was a man of similar age, but looking ten years younger, who following a successful cholecystectomy (bladder full of small stones) complicated during third week with a bronchopneumonia (traced to direct infection from a visitor) was seized with a *double sciatica*. It was early evident that this was a high (radicular) sciatica and the X-ray pictures supplied possible causes for irritation of the roots of the lumbo-sacral cord. Notably there was disappearance of disc between 5th L. and sacrum, and a slight spondylolisthesis between L. IV and V. The variable leg pains, about equal in severity on two sides, took in the full sciatic distribution to the heel, were chiefly at their worst after rest (bed or sitting hours at a desk) and proved quite resistant to treatment. At this point space does not permit of full detail of these two interesting cases. Many in the past appear to have gone unrecognized as regards their *basic* causes. They demand most complete scrutiny, careful X-ray plates at different angles, a search for poisons endogenous and exogenous, blood examinations and the detection of focal infections from teeth to prostate, occupational history and the study of long continued *postural strains* (the last being very important) and so on. The mere finding of spinal osteo-arthritis is so common after fifty that it may prove a red-herring across the trail unless all the elements of the picture are correlated and considered.

In Case A the postural strain over many years was clearly established aided by the gross myopia and astigmatism.

In Case B similar strain on the lumbo-sacral region was supplied by years of bicycle riding with the body held *erect* and the natural lordosis in the physical build thereby exaggerated and fixed.

In a recent Year Book of Medicine an analysis of *seventy* faulty diagnoses in which the condition was finally referred to osteo-arthritis of varying sections of the spine was given. In the mid-zone the wrong diagnosis of angina pectoria cropped up occasionally. One has seen such a case in practice, and it may prove a trap for the unwary.

A perusal of *Ralph Stockman's* original article on "fibrositis" is recommended before tackling the difficulties of these cases. May I stress the point that the great frequency of spinal osteo-arthritis forces us to admit that this, by itself, is a comparatively unimportant factor and the only one that offers real scope for much treatment except in occasional cases is the fibrositis associated with it. Anatomical findings as clearly-cut as in these two cases are not the rule. Where definite areas of tenderness and induration can be found then the skilful "rubbing them away" by *firm fingertip massage* (after Stockman), despite some pain and after discomfort remains one of our sheet-anchors. It should be *preceded* by the application of *heat* in one of its many forms from the simplest to the recent ultra-short wave therapy. Appropriate treatment for the varied constitutional flaws elicited by the all-round examination is added to the local measures. For instance, in case B a gouty history and personal high blood uric acid (4.4%) were found, but a normal blood, blood-sugar, etc. These cases are prone to seek the help of osteopaths and other outside cults. Osteo-arthritis per se occurring as it does in elderly subjects; it is evident that grey hairs and stiff joints do not go kindly with *forcible* manipulation and the writer has seen very serious injury reported by reliable observers. The sedimentation test (Froth-

ingham of Boston) is very useful in assessing the continued presence of an infective element in these cases of the "rheumatic" group.

*Eye Symptoms in General Medicine—Neglect of Complaint of Haemipia.

The importance of eye symptoms in general medicine is very great. The rough and ready tests for visual acuity, for diplopia and for haemipia should be included in every general examination if serious mistakes are to be avoided. The investigation of two army men for the Pensions Board some years ago will illustrate. A young returned officer drawing a pension for "neurasthenia" gave the history of having been knocked out by high explosive and being injured on left side of head by a shrapnel fragment. When he came to in hospital he suffered for a short time with weakness of the left limbs and from a disturbance of vision in which he only saw half of things. The weakness soon vanished, but the vision defect persisted, and this was now his presenting symptom two years from the injury and numerous boards. He showed a small trephine opening in right parietal region *without replacement of bone*, and complained of headaches, poor concentration and undue fatigue. His eyes were negative to examination and the fundus normal on each side. He said that whenever he used his eyes for any length of time ("reading—a movie") there first came a blurring or bright scintillation in the *left half of the vision field* and that if he persisted this half was entirely blocked out. The same thing happened on attempting any outside work which raised his blood pressure, e.g. digging in garden, etc. So that he was incapacitated for either indoor or outdoor occupations. There was really little else worth noting. His main symptom was subjective, and had been persistently ignored. Yet apart from migraine, which was easily excluded, this symptom pointed clearly to an organic lesion.

Lateral plates of skull showed the trephine circle surrounded by a sprinkling of what was presumably metallic dust, but, on securing an antero-posterior view with a second plate it was seen that the largest fragment of this "shell-dust" had sprung away from the rest and was actually situated deep in the base of brain about one-half inches from the middle line. An imaginary line drawn from the centre of trephine hole to this fragment described a course which placed the latter in the neighbourhood of the *right cuneus of the occipital lobe—the half-vision centre*. This explained very simply his *left homonymous haemipia*.

Operation on Occipital Lesion out of question.

Later the case was seen by Harvey Cushing who agreed in the diagnosis, repaired the open defect from the trephining and sent the writer his own plates of the case. Ignoring the patient's own description of his vision defect had led to this perhaps excusable failure in diagnosis.

B. Neglect of Complaint of Diplopia as a Symptom.

In 1917 the writer first saw and examined this patient, age about forty-four. He had been discharged as unfit following an acute illness which started ten days after an anti-typhoid inoculation. Material from the same source had been used on one other private who later was operated on for septic bone abscesses; but this case I failed to trace so long after.

The acute stage of my man's illness was marked by high fever (105°F), violent right-sided head pains, vomiting, delirium, a profuse pus discharge from right ear and by repeated complaints of *double vision*. He recovered with complete loss of function both divisions of eighth right nerve, deafness and labyrinthine destruction. For a year he could not walk straight and was profoundly neurasthenic. He continued to have double vision on looking outwards and downwards and there was inability to recognize the direction of sounds. The diplopia was brought out by fatigue. At the time of my examination he was drawing a trivial pension for (a) deafness one ear and (b) neurasthenia.

The ear damage was obvious and *weakness* of sixth right nerve with characteristic diplopia was easily established; but he also gave a history of more serious symptoms, viz. major and minor attacks of weakness and faintness that on a few occasions had resulted in loss of consciousness for as long as ten minutes. On one occasion had fallen from an apple-tree and been found insensible. The lesser attacks were much more frequent, of brief duration and showed pallor and a feeble low-pressure pulse. Some attacks were later discovered to be preceded by definite gustatory aura, a metallic queer taste in the mouth.

Little analysis seems to have been made of these attacks which were clearly *epileptic*. In 1919 he was reported on by Dr. Barraclough as a case of definite organic injury to brain, but the case went on still for years without a *real* adjustment of diagnosis or pension. Years afterwards the writer made a final effort to secure this. The X-ray plates of skull now taken for the first time showed well marked pathology. There were extensive *calcification* shadows in posterior fossa extending along edge of falx from pituitary fossa to the region of foramen magnum. The fossa itself seemed normal, but the *posterior* edges were eroded (at the dural reflexion). The scar-tissue involvement was such that the R. VI nerve could hardly escape some traction injury. The picture strongly pointed to a long-healed inflammation in the posterior fossa with a focal meningitis (or better meningo-encephalitis) in the areas surrounding the *right petrous bone*.

If attention had been given to the diplopia and the history as given by the highly intelligent wife of the initial acute illness, then the presence of "*Gradenigo's syndrome*", severe one-sided head pain, diplopia (VI nerve involvement) and signs of acute ear inflammation would have pointed at once to an "*acute septic petrositis*" as the initial lesion.

The sequence of events must have been as follows:—

- (1) A contaminated anti-typhoid injection.
- (2) Acute septic osteo-myelitis of petrous bone.
- (3) Focal meningitis of the surrounding areas on right side only.
- (4) Abscess formation with drainage through ear.
- (5) Destruction of VIII R. nerve, injury of VI R., both elements.
- (6) Final healing with deposition of lime salts and *some traction injury to R. VI nerve*, as it pierces the dura near apex of petrous.
- (7) Epilepsy as a result of the irritation of scar tissue.

This view was rather reluctantly accepted by the neurological pensions advisers and after many years some pension adjustment was obtained.

This man died last year from an extensive subdural haemorrhage, the result of a motor accident whilst walking near his home. His defect of sound localization and his deafness probably contributed to his losing his life. The

pathologist who did the autopsy has described to me the findings, which in addition to an extensive subdural clot (two months after accident) showed the old changes in posterior fossa which explained with remarkable clarity the symptoms from which he had suffered for years and amplified the X-ray and clinical findings, including the great pathological thickening and calcification of the falx margin and the involvement of nerve VI at and near its point of emergence.

Moral. Never neglect a complaint of persistent subjective eye trouble

Dr. Klein of Tufts Medical School Reviews Rheumatism.

Dr. Arthur Klein, Professor of Orthopaedics at Tufts Medical School, told a capacity audience attending the final series of free public health lectures at the Beth Israel Hospital auditorium in Boston on March 9th, that medical authorities recognize to-day the best way to cure rheumatism is to teach people how to live.

Teaching people what constitutes correct posture, how to avoid strain, and how to rest properly to secure relief from tension are among the most important phases of the work to be done, Dr. Klein advised in pointing out that rheumatism is really classified as type one arthritis.

If people would only realize that rest is essential, he said, with our present knowledge of arthritis we could probably cure this form of ailment. What they must do is build up a reserve to take care of any possible strain and thereby prevent "physical bankruptcy".—*The Halifax Daily Star.*

Atresia Vaginae

Introduction of a Recital of My First Operation in a Country Home for Atresia Vaginae

JOHN B. MARCH, M.D.,
North Brookfield, Queens County, N. S.

IN presenting this sketch my aim is to give the younger members of the medical profession practising in the larger centres and who only occasionally come into the country, a slight insight into some of the difficulties encountered "in the days of yore" by us old chaps who swell with honest pride to the appellation, "The Country Doctor", swiftly passing into forgetfulness. You "shall not look upon his like again".

The ever increasing opportunity for the hospitalization of patients, and the advancement in knowledge by the general public relating to medical and surgical requirements seems to me to have made it easy for some of our younger men to shift their personal responsibility upon an institution (hospital) rather than on an individual (experienced qualified physician or surgeon).

Going back thirty years, perhaps much less, the country doctor was obliged to undertake cases single-handed that to-day would only be justifiable under extreme circumstances. Yet to-day we find a number of young bloods doing that very thing without excuse, other than the almighty dollar, sometimes with very disastrous effect.

The history of this, "My first operation for atresia vaginae" in a country home, is *transcribed* from notes made on loose leaves, on which were recorded the facts, impressions and comments relative to the case, at the time, or shortly after, with no regard to phraseology or literary style employed. Therefore, if this piece of patch-work seems somewhat disjointed, overlook it.

In assuming grave responsibility without the moral support of one or more of my colleagues, I must remind you, many very important and grave cases are brought to the notice of the country doctor, with such suddenness, demanding his immediate attention he has no time to look for a specialist should one be available.

I trust you who may read this sketch will pardon the seeming egotistic conceit, when I record with pride the confidence I had in my knowledge of the anatomy of the human body, largely the result of *special opportunities* in the Dissecting Room of the University of Michigan. May I add I was honoured at least, on one occasion by being chosen from a large class of students on account of my excellent work, to make a dissection of a monster, for preservation in the Medical and Surgical Department of the Museum of that University. I was also student demonstrator to a class of twenty for some time. It was this knowledge of anatomy and the relation of organs, etc., that greatly stiffened my spine for the task now before me, for I must confess I had very limited knowledge as to the technique employed by others. It was up to me to form my own technique.

No case in all my practice was undertaken with any more concern as to the ultimate result and I can assure you I have been up against a number of stiff jobs during these years.

Again! In presenting this case it is not my intention to set forth any special line of procedure, nor do I intend going into the etiology or classification of this anomaly. Text-books treating on the Anatomy, Physical Functions and Surgical Technique in operations on the uro-genital apparatus, as well as the development in utero of the embryo and foetus may be consulted hose who wish to do so.

In fifty-two years of medical practice embracing surgery, obstetrics and gynaecology in town and country in this province, I have met with only four (4) cases of atresia vaginae, imperforated hymen excepted, three (3) congenital and one (1) the result of a surgical (*intentional*) operation. All were serious cases. My experience, therefore, in this class of surgery has been quite limited, as it would have to be in a country practice.

I am well aware, as you will notice, that my procedure in this case was quite unusual. I, however, make no apology for the manner in which it was dealt with. I did my best under the existing circumstances. With what success you shall see.

It was in the spring of 1907, on Friday, May 10th, 2 p.m. I received a call by phone from Mrs. C. to visit her daughter, Miss E.C.—“very ill in bed”. On my arrival I found the young lady in great distress. The mother refused to allow an examination, but demanded “something to relieve the pain”. Not being able to obtain history I refused to prescribe or treat the case until I could learn more about it.

I returned to my office with the idea the girl was pregnant.

May 11th, Saturday, 10 a.m. This is my (2nd) second call but with no better success than yesterday. The mother still insists that I give the daughter something for her pain, but refuses information or an examination. She, the mother, is simply incorrigible. What can be the matter? What is she trying to hide? The girl must be going to have a child. Something must be done. Will I have to enter a complaint to the authorities? I returned to my office.

May 11th, Saturday, 8 p.m. My third call. What is up now? If I respond to this call will I meet with any better success than before? On my arrival at the home, 8.45 p.m., the mother met me at the door, more cordial, but much excited. Her attitude had greatly changed. She said, “Doctor, this is the worst time E. has ever had, do something please.” I replied, “You will let me make that examination, will you?” Having her consent I requested the mother to enter the daughter’s room with me. This she refused, “I have work to do. . . .”

Seated by the side of the patient I noted first the general appearance of the patient as she lay in bed. A blonde, thin, pale, a rose-spot on each cheek, uncomfortable and very restless: pulse 115, temperature 99.5. Miss E. is nineteen years of age. She said, “I had good health until the past two and a half years. I never menstruated.” (I discredited the statement). . . . She said “I have been uncomfortable and in pain for a long time. At the very first I paid little or no attention, but for months past the pain in my belly, back and legs has been getting worse and now it is awful.”

With this clear statement I examined the patient’s abdomen which I found enlarged nearly equal in size to that of a young primipara at full term. (Till now I had held to the idea of pregnancy.) Slipping my hand under the bed covering to make a digital examination—a futile attempt. I resorted to sight, using a good light; my diagnosis was made.

All the usual landmarks were missing. The two folds usually seen surrounding the genital fissure were unobservable except at the extreme upper part under the pelvic arch, a suggestion of a triangular depression gradually becoming less distinct as it approached the meatus urinarius. The meatus was on the same level as the skin. At first I had difficulty in recognizing it. The stretch of skin from the anus to the meatus urinarius was as smooth as one could imagine. It was rounded and firm to the feel, not the slightest trace of the labia below the meatus; the uro-genital fissure quite obliterated.

A somewhat unusual picture. If the above does not give a real distinct idea as to the exact appearance, pace a male adult upon his back in the same position of Miss E., instruct him to seize his scrotum, etc., draw it over the arch of pubes, and you will have the picture with the exception you will not see the meatus urinarius or a slight ridge (clitoris) running through the centre of the shallow triangular space previously mentioned.

The hair was confined to the mons. "The gates" were closed by the gods, even worse than that, there were no gates, and I am surely up against a wall. What am I to do about it? Not much tonight. D. V. we will see in the morning. I gave the following hypodermically—B. W. and CO., Hyoscine Hydrobrom, gr. 1/100 and Morphia Sulph. gr. $\frac{1}{4}$, Atropinae Sulph. gr. 1/150. Promising to return early, I said, "Good night".

At my office 10.15 p.m. the same night. Fortunately an experienced trained graduate nurse was visiting near. Calling her by phone I engaged her services; also "my handy woman", who often accompanied me in child-birth and surgical cases. Regardless of the late hour both came to the office, and after a few words of explanation the work of getting ready for the morning began in good shape. Stock was first taken of material on hand that might be needed. A list was made and checked and each article set aside. It may seem unnecessary to copy that list here but when you compare the armamentarium of drugs, instruments and sundries of the country doctor more than enough to load a truck of the quarter century or even later with that of some of our younger medical men who locate near drug stores and a well equipped hospital, with its equally well appointed operating room, every convenience at hand—a corps of trained nurses to do his every bidding, you will have a better appreciation of some of the difficulties encountered in making preparation for an emergency operation in the country home.

It was not in mind that every article listed below and placed in our equipment would be required. But not knowing what unforeseen circumstance might arise, it may have been to give assurance that no want should be felt, or more than probable that hidden desire so often observable to make an impression on the folks, that led to taking many articles not required.

List.

Operating table and chair—A. Harvard. Kelley Rubber Cushion. Rubber sheets, two. A quantity of gauze. Absorbent cotton. Gauze medicated. Oiled silk. Supporter, shoulder to legs. Case hypodermic tablets, 25 formula. Hypodermic syringes, two. Instrument case with a good assortment of useful instruments. Small case of knives and bistouries. B. Chloride of mercury tablets. Sterile sodium chloride tablets for normal S. solution. Carbolic acid in glycerine. Chloroform B. W. and CO. Ether Sulph. Merk. Abbott's No. 8 Medicine case, 64 formula. Iodine Tr. Churchill's, Alcohol, Soap Castile, Soap, P. D. and CO., Etherial.

Towels, two dozen. Rubber finger stalls. Antiseptic Bismuth gauze, B. W. and CO. A case of sundries—drain tubes, syringes, etc.

Later. Alone I sat in my office mentally reviewing anatomy, etc. I was not a little anxious for as yet I did not know the extent of the atresia. I did know that the girl had to be relieved, and that at once, or something would happen, and that something would mean her death. Was the abnormality confined to the vagina? Were ovaries, tubes and uterus involved, and to what extent? Many questions presented themselves. Questions relative to sex, classification, etc. So far as my examination went last night the inference would be all internal organs formed normally, but how great the damage? Miss E. has a sweet voice, good shaped breasts, the characteristic general feminine appearance of a well sexed young woman. She had evidently menstruated and there is without doubt a great quantity of accumulated fluid. If not menstrual fluid, what condition exists? She said, "When I was seventeen years of age my weight was 120 lbs." My guess is she will not weigh 90 lbs. Is it possible menstruation has been going on with more or less regularity since sixteen or seventeen years of age? But why spend time in speculation? D. V. I will investigate in the morning.

1907, May 12th, Sunday, 7.30 a.m. Our equipment on wheels just left for the scene of action. The surgeon and his staff will shortly follow. Four (4) inches of snow fell during the night. The sky is clear, the air is chilly. The snow will improve the light.

Arrived at the home, 8.25 a.m. Miss E. C., the mother says, "slept some during the night". Temperature, 99.4, pulse 115.

Question: Is this a nervous manifestation, or is it due to absorption?

Question: What will be the result of too rapid removal of such a quantity of fluid? I do not like the idea of relieving the pressure too quickly.

I informed the mother and son, the two members of the family besides the patient of the great risk we were about to take in our attempt to save the life of daughter and sister.

Preparation of operating room and the patient. There was no time to lose. The operating room next to the bedroom had to be put in order, water boiled and set aside to cool to provide sterile water; operating table, tables, for instruments, basins, pitchers, etc., etc., had to be conveniently arranged, and a score of other preparations made. This work was done by "my handy woman", aided by the brother and mother.

The patient during this period of general preparation was being made ready by the nurse under my supervision. An enema followed by a sponge bath special attention given to perinaeum and inside of thighs. These parts received an additional sponging with alcohol; a covering of sterile gauze, a layer of absorbent cotton, a sterile towel and a retaining bandage. A belt of folded cheesecloth was placed about the body above the hips. The patient was given $\frac{2}{3}$ dose of B. W. and CO. "Tabloid Brand",

R Hyoscine Hydrobrom, gr. 1/100

Morphiae Sulph. gr. 1/4

Atropinae Sulph. gr. 1/150, hypodermically.

Two hours had been consumed in these preparations. A moment of time was now taken for coffee and sandwiches; a general inspection of preparations already made, that nothing had been omitted.

The patient was now removed from her bed to the operating table; lifted on a blanket, the sides rolled on quilting bars close to the body; the Kelley

ushion placed under the hips; the support under shoulders to hold the legs in position. The chloroform was administered by "my handy woman". I had great confidence in her skill and care, she having done a like service for me many times.

At the earliest possible moment the patient was placed in a similar position to Simon's Position for vesico-vaginal fistula; the hips not elevated to the same degree; the limbs were retained in position by the use of the shoulder and legs supporter, thus leaving the nurse free to wait upon me.

Now was my time to ascertain the extent of the atresia and what other information possible. A silver male catheter was passed into the bladder and the urine drawn. The catheter was given to the nurse to hold at an angle of 45°. My stilled finger inserted full length into the rectum. I felt for catheter and endeavoured to determine the point at which the accumulated fluid had reached in a downward direction. In other words, how far up was the point of obliteration? Taking the catheter in my own hand and lightly pressing the convex portion of catheter against the anterior lower wall with gentle manipulation I was able to feel both catheter, and at the tip of finger, a resisting tumor. The nurse was requested to make a few quick percussion taps over the fundus of uterus. I received the delicate impact on my finger tip—a "ballottement". I could trace the obliterated vaginal portion for more than one-half the normal depth of a vagina. Withdrawing my finger I was well satisfied as to the extent of the obliteration.

That fluid must be evacuated and in so doing I must make an artificial vagina. A match with a bit of absorbent cotton twisted about one end dipped into Tr. Iodine served as a pencil. With it I drew a fine straight line from the meatus to the anus. Dividing this line into three equal parts, at a point corresponding to the lower end of the upper third, I made a cross mark (we will call No. 1): a second line, No. 2, one-half inch above No. 1: a third line, No. 3, one-quarter of an inch down from the upper end of the lowest division. Joining points No. 2 and No. 3 on each side by curved lines an elliptical figure was marked in iodine.

The skin incised from No. 2 to No. 3, I began in the centre to carefully work my way through the fibro-cellular tissue with handle of bistoury and finger and the blade occasionally dividing all tissues until I reached a presenting tumor at a depth of slightly over two inches as measured by my finger from tip to one-quarter of an inch above the centre of the second knuckle joint of index finger. This may seem quite simple, but let me tell you in making this dissection, the hand must not only be steady, but great patience exercised. It was much like splitting a leather shoe string with a razor blade, only more so.

This presenting tumor covering was extremely tough. Separating the newly made walls as much as possible, using two $\frac{5}{8}$ inch retractors, without undue force, I passed my finger around the tumor and with finger and bistoury handle separated (loosened) it at the bottom of the new opening, thus favouring its advance into the deep part. The appearance was quite similar to the presenting amnion in child-birth. This tough resisting tissue viewed through a reading-glass was rough, granular and shot through with minute blood vessels. The male silver catheter being in my way was withdrawn and replaced by a soft elastic one, No. 9E, fitted with a long tube and shut off. The tube and catheter were filled with boracic acid solution and clamped to exclude the air. The tumor was aspirated with the largest needle from my

aspirator set, Potain's, to ensure slow evacuation. It was some moments before a few drops of dark liquid resembling coal tar dropped from the needle. (The fluid was much darker than usually described.) The flow was too slow, so I withdrew the needle, and replaced it with a large trocar permitting the attachment of a tube through which this dark liquid escaped into a large basin. With the drainage satisfactory the chloroform was withheld and the patient made comfortable. From 11 a.m. to 2 p.m. the patient was undisturbed, except during this time the patient was given a small cup of coffee.

At the expiration of three hours the quantity of fluid evacuated had reached the full capacity of the basin, eight quarts. This was removed and replaced by another one. The cavity was then flushed with a sterile saline solution (not up to standard strength) at a temperature beginning at 99° and increasing to 100°. Great care was taken to insure a gentle flow. This first washing was made through the canula without anaesthesia.

Two p.m. The anaesthetic was resumed. Patient put into position, the canula removed, a pair of straight sequestrum forceps closed were inserted into the hole made by the trocar, and forcibly opened to enlarge the hole, so as to admit the finger. The catheter in the bladder, the left finger in the rectum, I carefully felt for both catheter and finger, noting the intervening tissue thickness. Removing finger from rectum (a cleansing fluid at hand) and insinuating it back to back with that of the right I stretched and tore until space was adequate, and the feel as to thickness of tissue correct—at the floor that of a normal perinael body in a virgin of adult age.

Dissecting the skin back from point No. 2 to point No. 3 on the line of the first incision each side I had two skin flaps. With tenaculi tissue forceps the edge of the deep lining muco-fibro-membrane was secured and drawn as far to the external surface of the opening as possible. A needle armed with a long sterile cat-gut suture was passed through this membrane at the centre of the opening, and then through the skin opposite, drawn to its centre and tied. Working from this point each way the edges of both skin and lining membrane were united, sides and floor, by the "continuous stitch", the terminal ends tied together top and bottom, thirteen (13) stitches of fine cat-gut being used. I now had a somewhat of an elliptical opening, 1-3/8" in length, 3/8" across, and 2" in depth, all raw surface covered with skin and muco-fibrous tissue.

The final douche, Boracic Acid Solution, administered, using a Longstaff Uterine Irrigator, with the gravity syringe held no higher than would secure a gentle flow; the line of stitches covered with oiled silk and a drain placed in the centre of the opening, held in position by the nurse while I packed aseptic Bismuth gauze, B. W. and CO., about it to the depth of four to five inches; over this packing and surrounding parts were placed several layers of Bichloride of Mercury gauze, absorbent cotton, rubber tissue fitted tightly around the drain, and a retaining bandage fastened securely to the gauze belt; the end of drain placed in a two-quart jar with sufficient antiseptic solution to exclude the air. Everything secure the patient was put in her bed. The receiving jar was arranged so as to be a little below the centre of the patient's pelvis as she lay in bed. This arrangement precluded the entrance of air through the drain, and still allowed for good drainage.

My instructions to the nurses re diet, care of catheter, and hypodermic should it be necessary, I considered my services ended until my next visit, so said, "Good afternoon"—3.30 p.m.

Monday, May 13th, 10 a.m., visit. I find Miss E. much improved, tranquil and happy. I removed catheter from bladder, the drain and packing. The patient was thoroughly doused with boracic acid solution. The line of stitching received a fresh application of oiled silk, and then the opening was repacked and dressed as before described.

A glass female catheter was supplied the nurse to be used if necessary. The routine douching and dressing was carried on daily up to the 18th day of May. I made daily visits up to the 17th of May on which day I returned the visiting nurse to her friends: "my handy woman" remained with the patient.

I regret I did not have another opportunity to examine Miss E. after the 18th of May. Conditions on that date were very satisfactory, the patient up and about enjoying the spring sunshine.

I cannot close this sketch without expressing my great satisfaction in being able to state Miss E. not only regained excellent health, but she was able to complete her studies, obtain a Grade A certificate; taught school in the West, fell in love—*married well*.

Mrs. . . . formerly Miss E. C.—wrote me a letter from her new home in which she said, "Dr. March you will be greatly surprised when you receive this. . . Only think, I am a married woman and am now just out of bed after having a fine baby boy. Thank you, Doctor. . . I am so very happy."

All within five (5) years of her operation on May 12th, 1907, in a country home. (Fee \$50.00, paid).

Some questions not yet answered.

(1) What was the history of that first labor? (2) Was the vagina damaged?
(3) Did the accoucheur use instruments? (4) Did the union between skin and living membrane remain permanent?

My letter throws no light on the above. I have written a mutual friend hoping to learn some of the answers and perhaps get the present address of patient and doctor.

Intestinal Obstruction.

W. N. REHFUSS, M.D.,
Bridgewater, N. S.

THE subject of intestinal obstruction is a very wide one and must necessarily be treated in a somewhat sketchy fashion in my limited space.

The condition, is one, however, of perennial interest, both from its varied etiology and from its urgency for decision in diagnosis and treatment. The loss of life from sluggishness in this latter respect is still too high.

For purposes of discussion allow me to submit the following classification.

1. Mechanical.....
 - a—acute or sudden.
 - b—chronic or gradual.
 - c—chronic suddenly becoming acute.
2. Dynamic.....
 - a—paralytic.
 - b—spastic.

In the physical examination of a case of intestinal obstruction the following points are very important—

If any vomitus has been saved, observe its character.

Faecal vomiting is not a sign of intestinal obstruction, but of impending death, according to Sampson Handley.

Look at the tongue—in late obstruction it is dry, brown and furred.

Examine firstly the hernial sites, inguinal, femoral, umbilical and obturator. Small hernias in the latter two sites may be very treacherous and easily missed.

Inspection should be in a very good light with plenty of time taken to note—

1. *Distension* which is early in obstruction of the large gut and whenever it is situated therein makes itself most evident in the caecal region which should receive special scrutiny. In small gut obstruction distension of any extent is seldom early.

2. *Visible Peristalsis* Ladder patterns (Wyllie) are very characteristic, but a late sign, and therefore not to be waited for or expected. Visible peristalsis may be sometimes elicited by a drop or two of ether on the abdominal wall. Time and care should be spent in trying to establish this valuable sign, in the best possible light and with full exposure.

Auscultation—Listen for borborygmi, “The contrast between the turbulent gurgling sounds of mechanical obstruction and the death-like silence of paralytic ileus is very marked”. (Burgess).

The *neglect* of the use of the stethoscope on the abdomen is very noticeable.

Palpation. Even when peristalsis is not visible, it may be palpable by the flat hand kept on the abdomen. Sit by the bed-side and again take time.

Shifting Dullness may be caused by dilated coils of small intestine reacting to gravity under posturing and thus stimulate free fluid. ■

Rectal Examination should never be neglected. If rectum is completely emptied it is suggestive. On the other hand rectal examination may reveal a knuckle of distended small bowel in Douglas' pouch, or may detect cancer

of rectum or other obstruction: e.g.—foreign body. In doubtful cases enema may be given, noting the amount of fluid retained; this should then be at once repeated as it is the second enema that is valuable. If no flatus or faeces from the second, it is very suggestive evidence.

Mensuration—serial measurements at umbilical level at short intervals not delaying too long and losing time, are useful as showing increasing distension, but do not forget that delay is dangerous. Grune in his medical diagnosis reminds us—“The higher the obstruction the less is the meteorism, the earlier the vomiting the more rapid the transition to faecal vomiting, the higher the grade of indicanuria, the earlier and more severe the collapse and urinary suppression”. An associated tumor points to an active growth, intussusception, or a faecal impaction.

Intussusception is more frequent in infancy and childhood and the tumor is usually in the ileo-caecal region over the sigmoid flexure.

Marked tenesmus. Bloody stools are most frequent in intussusception. In intussusception and volvulus the lack of fluid capacity of the lower bowel as listed by enema may be an important aid.

Volvulus is most frequent in the fourth decade, the passage of ribbon-like or narrowed cylindrical stools suggests partial obstruction. The unoccluded lower portion of the bowel may still be able to eject its original content.

Faecal vomiting may require twenty-four to forty-eight hours to develop fully its characteristic brownish color and special odour.

Foreign bodies of any kind may cause obstruction and are seldom suspected unless a clear history is obtained. Most frequently the victims are children and mentally defective patients.

Acute Obstruction

The main symptoms of acute obstruction, may I remind you, are pain, vomiting, and shock of a varied degree, distension, absence of the passing of stool and flatus.

The early symptoms—pain, vomiting, and shock are due to peritonism.

The later symptoms—are due to the interference with the onflow of the abdominal contents, dehydration, depletion of chlorides, absorption of toxins and peritonitis.

The first symptom, pain, is intense. If the obstruction is in the small bowel it is referred to the umbilical region; if near the fixed portions of the bowel—such as the duodeno-jejunal or ileo-caecal junction—it will be referred to the part involved. Pain at first continuous soon becomes colicky.

Vomiting which comes on in a very few hours is at first due to peritonism and consists of stomach and duodenal contents. Later vomiting is due to overflow and becomes jejunal in type, commonly called faecal.

Shock well marked, usually, in a few hours is due to the profound impression upon the sympathetic and other nerve fibres distributed in the abdomen. Later the patient passes into collapse. The face is pale, eyes sunken, pulse rapid and thready, respirations shallow, skin cold and clammy, temperature subnormal.

Distension which comes on late due to interference with absorption of gases and intestinal secretions is greater—the lower the obstruction.

The following cases will illustrate a few phases of this class of emergencies:

Case 1. Male, single, age 24, with a medical history of three attacks of appendicitis in 5 years. Patient presented Dec., 1931 complaining of intense colicky pain, doubling him up with every attack. Pain followed in a few hours by vomiting without relation to food. Attack began twenty-four hours before presentation. Examination revealed evidence confirmatory of an attack of acute appendicitis. Patient looked very ill—temp. 101.2, pulse 120, leucocytosis 20,000. Muscles on guard in right iliac fossa. Patient from onset to time of presentation had passed neither stool nor flatus. Vomiting at first was stomach contents, later bilious. Vomiting and colicky pain persisted. He was operated on for acute appendicitis although recognized as a typical due to the persistence of the colicky pain and vomiting. Operation, gridiron, incision, local peritonitis, inflamed distended ileum presented, appendix retro-caecal inflamed omentum adherent around caeco-appendiceal junction. Knuckle of ileum carrying appendix with it had herniated between two omental adhesions and was strangulated. Knuckle of bowel bluish in colour but had not lost the lustre, appendix removed through incision. In order to deal with the herniated loop—a para-central incision was made after closure of gridiron to conserve innervation of abdominal wall. Through this incision constricting omental bands were severed and hernia thus reduced. The loops were easily separated being bound together only by recent lymph adhesions.

The circulation of loop of bowel readily returned after severing the constricting bands, three layer closure without drainage completed the operation. Post operative treatment consisted in gastric lavage while yet on table. Saline and glucose with Laudenum and digitalis by bowel, forced hot fluids by mouth, morphia first twenty-four hours. Uneventful recovery.

Case 2. Female, age 3½ months, always healthy. Six a.m. awakened mother by screaming, crying was intermittent, shortly afterwards vomited. Child presented at 9 a.m. same morning. Child anxious looking, slight distension, pulse rapid, temperature subnormal, bowels had moved normally during the night and moved again shortly after the pain of 9 a.m. there was a bloody mucus exuding from rectum. *Palpation* revealed a sausage shaped mass across lower abdomen, concave towards epigastrium. Rectal examination revealed blood and mucus. *Diagnosis*—acute intussusception, operation at 11 a.m.

Right paracentral incision from umbilicus downwards, slight amount of serous fluid slightly blood tinged escaped. Tense and injected small bowel presented, no peritonitis, palpable mass was found to be an ileo-caecal intussusception about 18 inches ileum into colon. Reduction easily accomplished by slight tension and pressure on apex of mass. No apparent cause for intussusception discoverable and peritoneum still intact. Operation was completed by 3 layer closure of abdominal incision without drainage. Breast feeding continued, with laxatives forbidden, recovery complete, appendix removed at seven years without complication.

Case 3. Male age 38, presents himself complaining of umbilical pain colicky in type of about eighteen hours duration, vomiting coming on in a few hours following pain.

Examination reveals a robust athletic male, face pale and anxious looking, slight distension of abdomen, temp. 99½, pulse 90.

History of no passage of stool or flatus since attack began. Rectal examination negative.

Diagnosis acute obstruction, paracentral incision, peritoneum negative, distended ileum presented in wound slightly injected, following ileum down, found mass in lumen obstructing gut about two feet above ileo caecal junction, mass feeling hard and unable to move it along by gentle pressure. Incised gut longitudinally opposite mesenteric border and removed mass consisting of a large fig with hardened blood around it, closed gut incision by two layer suture and abdomen closed without drainage. Patient left hospital well in 14 days.

Chronic Incomplete Obstruction.

Here we have a lesion partially obstructing the intestine over a long period of time. The onset is insidious as a result of this gradual and insidious yet progressive constipation with colicky pain. The muscle of the proximal bowel becomes hypertrophied due to increased peristaltic action in forcing the bowel contents through an ever narrowing lumen.

The symptoms of chronic obstruction are: general and local, loss of weight, muddy complexion, dyspeptic symptoms in general characterize this malady. The most important signs are visible and palpable peristalsis. There are three types of visible peristalsis depending upon position and pathology of the obstruction.

Vernicular, due to multiple lesion of a cicatricial type in a limited space of small intestine.

Ladder type, seen in obstruction low down in small bowel.

Colonic type, in obstruction of large bowel.

Palpable peristalsis due to alternating relaxation and contraction of the intestine, is possible only in hypertrophied bowel, associated with chronic obstruction, in fact is pathognomonic. The treatment is operation. Whether the operation shall consist of one or more stages depends upon the surgeon, but resection and anastomosis in an oedematous bowel is bad surgery—better first a colostomy.

Chronic incomplete becoming complete.

One of the most common results of chronic obstruction is to become suddenly acute by a blocking of the narrowed lumen by some foreign matter or hardened stool. Upon the picture of chronic obstruction we have suddenly added that of an acute and unless relieved by operation it speedily terminates life. We have two types of chronic suddenly becoming acute.

First—when the gradually narrowing bowel as from ring carcinoma, becomes suddenly blocked by some foreign matter there comes a time when even the hypertrophied muscle is unable to drive the contents on and dilation of proximal gut takes place. Here the picture is changed when complete obstruction takes place. Absence of intense colicky pain, regurgitant vomiting, if it takes place is late, patient becomes toxic and heart fails. As an example of *chronic obstruction* due to external pressure allow me to present the following case—

Case: Female age 43, married, never pregnant. Presented herself complaining of increasing constipation and dull pain in lower abdomen. Patient somewhat overweight. Examination revealed moderately distended abdomen, distension tympanic, no signs of fluid. A large irregular slightly

tender mass emerging from pelvis, about the size of a six months pregnancy was revealed by palpation. *Pelvic examination* revealed this to be a large, hard irregular mass filling pelvis laterally and posteriorly, cervix anterior behind pubis. *Rectal examination* practically impossible owing to encroachment of posterior mass on rectum, on faeces in rectum, but patient gave history of recent small ribbon shaped stools.

Diagnosis, chronic obstruction due to fibroid uterus. Owing to the degree of impaction it was considered that radical operation only would relieve the condition.

Right paracentral incision from pubis to umbilicus—a large irregular fibroid uterus presented. The posterior growth which was the largest filled Douglas' pouch, completely obstructing the rectal lumen. Subtotal hysterectomy was performed, cervix appearing normal. Adhesions giving considerable trouble causing free bleeding, abdomen closed without drainage. Convalescence uneventful, bowel movements becoming normal before leaving hospital one month after operation. Remains well, bowels moving normally with an occasional laxative.

Dynamic

Paralytic obstruction. The most serious of all types of obstruction. It is usually secondary to some inflammatory lesion of abdomen or acute lesion of spinal cord, but also due to embolism or thrombosis of mesenteric blood vessels, resulting in more or less complete loss of innervation impulses to the intestinal muscles or to the non-contraction of muscle which is incapable of response. Paralytic obstruction is characterized by absence of colicky pain, of bowel movements, increasing distension, regurgitant vomiting and rapidly increasing toxemia.

If the condition is due to embolism or thrombosis of mesenteric vessels without warning, the symptoms of acute obstruction appear with the appearance of blood in stool and vomitus. If the abdomen is opened it is found to contain dark blood stained fluid and the bowel involved is found to be a dark chocolate colour, swollen and adematous; if the condition has lasted for some time the bowel is more or less gangrenous with more or less peritonitis, condition proving rapidly fatal. The following case will illustrate this condition.

Male, age 52, presented himself complaining of severe continuous pain, centrally situated and vomiting of 48 hours duration, pulse 120, temp. 101. Bloody diarrhoea with no relief. Physical examination revealed a distended abdomen, no visible peristalsis, abdomen rigid, peritoneal reflex present, auscultation revealed absence of peristaltic sounds. Rectal examination showed blood stained stool, patient a well developed man, colour grey, expression anxious, prematurely aged, with general vascular thickening, systolic apical murmur, leucocytosis 26,000, poly morph 86%.

Diagnosis of an acute abdomen was made and operated upon at once. Right paracentral incision from slightly above umbilicus downwards for 5 inches; peritoneum inflamed from which on opening quantities of bloody serum escaped, purplish coloured small bowel presented, about 2 feet of gut was apparently going gangrenous, on incising bowel it was filled with grumous bloody material. Tracing mesenteric vessels no pulsation could be detected at the roots, there being apparently an extended thrombosis in the area of distribution. Complete operation by doing a side to side anastomosis, with

a jejunostomy, closed abdomen with drainage, patient dead 18 hours after operation.

Spastic obstruction or enteric spasm due usually to some irritation in the bowel, such as an ulcer in a case of mucus colitis, or following operative interference, when manipulation has been prolonged, is characterized by contraction in a limited segment of bowel. When co-ordinated peristaltic contractions are replaced by inco-ordinated spastic contractions, the treatment is essentially sedative. Purgatives being contra indicated. As regards treatment in general, it may be divided into operative and palliative.

The *operative* procedure depends upon the lesion and condition of patient.

The *palliative* treatment has as its object the counteracting of the results of obstruction and of its sequels.

1. *Dehydration* from vomiting and loss of absorption of water from bowel.
2. *Depletion* of blood chlorides.
3. *Toxaemia* from absorption of toxic material as a result of the putrefactive contents of the intestine.
4. *Loss* of innervation.
5. *Inability* of muscle to respond.

Dehydration, depletion of blood chlorides and toxaemia, are all controlled by administration of .9% saline and glucose, intravenously and by hypodermiclysis, prior to operation. After operation may also be given by bowel with hot fluids by mouth. Loss of innervation and inability of muscle to respond are best treated by esserin and piturтин and atropine. Acetylcholine has been much recommended of late. Morphia in spastic conditions also recommended. Spinal cord blocking with novacaine—by some it is asserted—gives excellent results.

F E E S !

To date 250 members have paid their dues—247 conjoint memberships and 3 to the Medical Society of Nova Scotia alone. In addition, there are 10 honorary members. Last year we had a total of 315 members—275 conjoint, 29 of the Medical Society of Nova Scotia alone and 11 honorary.

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Will those who have so far neglected their dues kindly send same to the secretary as soon as convenient.

Operative Forceps

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FORCEPS in obstetrics play a very important part in the work of the general practitioner and can be a great aid if properly used and if improperly used can cause grave disaster to both foetus and mother. It is the purpose of this paper to try and recall some of the facts concerning the proper use of forceps in obstetrics.

The obstetrical forcep is an instrument designed for the extraction, when the conditions for its use are fulfilled, of the child when it presents by the head.

The first appearance of a forcep which could be used safely for the extraction of a living child was in the 17th century. Prior to that time instruments were used for the extraction of babies already dead, or for the successful delivery of which no hope was entertained. The Hugh Chamberlain forcep, probably the first used for the extraction of living children, had no pelvic curve which was added by Levret in 1747 and Smellie in 1751 quite independently of one another.

The forcep consists of two blades which are known as the right and left, according to the sides of the mother's pelvis in which they lie in application. The rule of the forceps follow this and is as follows—"left blade, left hand, to left side of pelvis—right blade, right hand, to right side of pelvis."

Forceps should be constructed wholly of metal to permit of frequent sterilization by boiling or in the autoclave. Poorly finished instruments, the surface of which chips or corrodes, should be avoided.

Choice of Forceps. This depends a great deal on individual taste. Many use for ordinary work the fenestrated Simpson forceps. DeLee has modified this instrument slightly with an elongated shank for use in midplane operations. Good results may be obtained with any properly constructed instrument . . . It is well to be familiar with one type of instrument for all ordinary work as the results obtained depend far more upon the skill and judgment of the operator than upon the instrument.

A non-fenestrated forcep, the Tucker-MacLean instrument, is favoured by many. The blades of the instrument are thinner and narrower than fenestrated instruments. The advantages are (a) ease of introduction; (b) the shanks of the two blades lie closer together, thus distending the vulva less at outset of extraction; and (c) for some forms of forceps rotation of the head, the thin smooth blades facilitate the slipping round of the head. Naturally a good application of the instrument is very necessary.

Function of Forceps.

(1) *Traction.* The prime function of forceps is traction, i.e., the drawing of the head through the genital tract.

(2) *Rotation.* In occipitoposterior positions in which antero-rotation has not occurred or has only partly occurred, the forceps may be used with excellent results as a rotator.

(3) *Compression.* The head must necessarily always be compressed to some extent by forceps, but the effect will be minimized by skillful use. The forceps should not be used to decrease cephalic diameters, as this means injury to both mother and child. When disproportion exists and the head has not molded its way to complete engagement some other form of delivery should be considered.

(4) *Forceps as a lever.* This is not permissible. Moving the forceps handle from side to side is a harmful practice. The head in normal labor, goes through no such motion. The mechanical effect is essentially that of a lever action, the maternal structures serving as a fulcrum, thus causing damage by laceration or by loosening the structures of the birth canal from underlying supports. It should never be done. Forceps as an irritator and dilator should never be used.

Varieties of Forceps Operations.

(1) Low Forceps—an extraction when the head is on the perineum or well below the ischial spines.

(2) Mid Forceps—when the head is at or just above the ischial spines.

(3) High Forceps—the head is just entering the pelvis but greatest diameter not past pelvic inlet.

(4) Forceps on floating head—head freely moveable above inlet. This operation is practically never done by expert obstetricians as it is dangerous to both mother and child and apt to be brutal in the amount of force required.

Indications for application of Forceps.

May be foetal or maternal. Granted that forceps delivery is technically possible, any evidence of danger to the child justifies interference. A marked slowing of the foetal heart, particularly if irregular, indicates damage to cranial contents from long continued second-stage pains. Meconium in a vertex presentation emphasizes this. Only occasionally in prolapsed cord are forceps the remedy.

Maternal. Insufficiency of maternal powers, particularly when the head is on the perineum as a result of resistance of perineum, physical or nervous fatigue of woman or size of head. It is not wise to wait more than one hour after the head is on the perineum to perform outlet extraction on account of cerebral injury. In mid-plane forceps the decision calls for much judgment depending on conditions of child and mother. If no progress in the presence of good second-stage pains in two hours, interference is justifiable.

In deep transverse arrest the procedure chosen may be wholly a forceps manoeuvre. Sometimes also in face and brow presentation. Forceps may be used in cases of contracted pelvis after the head has molded, but never before. Certain diseases of mother justify use of forceps. Heart disease with broken compensation—pneumonia—tuberculosis and pulmonary oedema. Forceps may also be used on after coming head in breech cases in which the Veit-Smellie manoeuvre fails.

Conditions. It is the duty of him who uses the forceps to convince himself that the conditions for the safe use of the instrument are fulfilled. Countless obstetrical disasters have followed the untimely, or too early use of forceps, or the attempts to make use of forceps in cases in which some other form of intervention would have been better.

(1) Cervix must be fully dilated or dilatable.

(2) Membranes must be ruptured.

- (3) The head must be engaged and not too large.
- (4) Child must present correctly.
- (5) Head not too small.
- (6) Bladder should be empty.

(1) The cervix must be fully opened before delivery by the forceps is attempted. Normal dilatation is naturally preferable but if this is not possible manual dilatation (Harris) or by incision of Dührssen must be performed. Traction must not be made until dilatation is complete as serious haemorrhage may occur and great harm to uterine supports.

(2) If membranes are not ruptured before forceps are applied, forceps may slip, or pulling on membranes may cause premature separation of placenta with resulting haemorrhage.

(3) *Engagement and disproportion.* If the head with or without moulding will not enter the inlet it is not one for forceps. Often with much moulding and a well developed caput succedaneum the inexperienced obstetrician thinks the head is deeper in the pelvis than it really is, and a much more difficult time is experienced.

If the head appears to be engaged, forceps may be used as an instrument of trial. If unyielding resistance is met with, the effort should be abandoned and version done if possible. The long continued employment of brute force is inexcusable.

(4) *The child must present correctly.* Position must always be realized and can be readily known by position of anterior and posterior fontanelles and posterior ear.

(5) *Head must not be too small.* In a premature child or soft or macerated head forceps are of no avail.

(6) Empty bladder. Gives more room and prevents later cystocele.

Technique of low forceps. If the case is in hospital all the necessary equipment and tables are there. If in the home leg-holders are very convenient and are really a necessity. The use of boards under the mattress helps to support the patient. After carefully cleansing the external meatus the bladder should be emptied. At this point "ironing out" of the perineum is a very important factor and helps a great deal in preventing tears and facilitating delivery. First two fingers are inserted into the vaginal opening after a little sterile liquid green soap is poured in. This is done gently, sliding the fingers from side to side on the perineum. Soon three and then four fingers are inserted thus causing the same effect as if the levators were stretched by the foetal head.

Some obstetricians prefer a mediolateral episiotomy, but in the home "ironing out" of the perineum is much preferable. Even in some of the large centres "ironing" is much preferred to episiotomy, as the result on follow-up cases have been excellent with no increase of cystocele or rectocele.

With the head on the perineum and anterior rotation completed, the forceps are applied as described in recognized obstetrical manuals; care being taken to use gentleness, no force being necessary in order to lock the handle or on applying.

Traction should be intermittent simulating labor pains and lasting about 15-25 seconds. As the final motion of the head prior to delivery is deflexion the handle of the forceps must be elevated more and more. Some complete the delivery with forceps and others prefer to remove them as the broadest diameter

of head distends the perineum, and finish up by Ritgen's manoeuver. After the forceps are removed some obstetricians complete delivery by using gentle traction with gauze on the infant's scalp. The rest of delivery is completed in the ordinary way.

Low forceps when anterior rotation is not complete. It may be necessary to intervene when the head lies almost on the perineum but the sagittal suture is still in oblique diameter. Interference may be necessary on account of fatigue of mother. In this case it is always best to apply blades to lateral aspect of head, that is, a cephalic application. During the first one or two tractions the occiput should rotate anteriorly under the symphysis. This may be aided, if necessary, by very careful rotation. Then proceed in the usual way.

Forceps in mid-plane (anterior position). The operator must always be sure that the head is in the mid-plane as marked moulding and caput may cause the head to appear really lower than it is. Here it is very important to verify position either by palpation of fontanelles and sutures or ears. In introducing forceps be sure they are inside cervix. The obstetrician assures himself by palpating sagittal suture that a proper cephalic application has been made. Traction is then made according to rules laid down.

High Forceps or Inlet Forceps. This operation is much more difficult than those described. The head is engaged but lies in the upper part of the birth canal. The axis of the pelvis is a curved line and its upper portion if prolonged as a straight line, would pass through the inferior portion of the sacrum. With the ordinary forceps applied in the usual way, much of the force of the traction goes to force the head against the symphysis, to the detriment of the child and without aiding labor. Tarnier devised a forcep with which, by means of traction bars attached below the blades, it was possible to exert traction in the pelvic axis. The Milne-Murray forceps are a close rival in effectiveness. Pajot's manoeuver is also used.

Indications. A great difference of opinion exists to-day as to whether the high forceps operation is a justifiable procedure at all. Here is a suitable place for the forceps to serve as an instrument of diagnosis. If the head advances after a few tractions the operation may be continued, but if no progress, the attempt should be given up and another method of delivery instituted.

Long continued violent attempts at delivery, with perhaps one doctor relieving another at the forceps, is inexcusable causing severe injury to mother and often death to the child. Craniotomy would be much safer.

The diagnosis of position must be carefully made. Correction of an occiput-posterior position may allow delivery to proceed. If case is one of disproportion forceps had best be given up and version tried if the condition of the uterus is satisfactory. Often the head will come through the pelvis following a version when attempts at forceps have failed.

If there have not been too many attempts at delivery a low cervical Caesarean section may still be done. Pubiotomy may be considered. If none of the above alternatives may be considered, craniotomy remains as an ultimate resource.

Condition. All the factors as laid down for forceps delivery must be satisfactory.

Technique. If it is possible, it is well to bring the occiput anterior or at least into an anterior quadrant before applying the instrument. If this

cannot be done the blades must be applied to the sides of the pelvis. Later, the instruments may be reapplied after the head is brought down.

Forceps when the Occiput is Posterior: Oblique Posterior Positions.

It must be remembered that fully 75% of posterior positions may be expected to rotate anteriorly if left alone.

First the operator must assure himself of his diagnosis by not only relying on palpation of fontanelle and sutures, but by positively identifying the posterior ear. As a rule interference is necessary in the mid-plane, particularly after the head has remained there for two hours without progress. A procedure of great benefit is manual rotation. For example, in R. O. P. the right hand is introduced and the head is grasped with fingers and thumb spreading pressure as much as possible. The head is then turned anteriorly, aided by the left hand externally on lower abdomen. If necessary the head may be displaced upwards for the manoeuvre. When rotation is complete, fingers are left in contact with sides of face to prevent resuming of former position, and blades are applied.

Sometimes it is impossible to rotate the head to an anterior position by the hand alone and the Scanzoni manoeuvre must be used. Much success has been accomplished by the use of the Tucker-McLean blade in this procedure. The blades are applied in the usual way. The front of the forceps are then turned toward the infant's face. A rotary movement is then made with the handles going through a spiral course. Sometimes it is necessary to depress the handle slightly before rotating. This manoeuvre in expert hands is without danger, but in the hands of the inexperienced grave danger may result. The forceps are then removed and reapplied pressure being made through the abdomen to keep head in position while applying.

The Keilland forceps devised in 1916 have a valued use in expert hands in posterior cases. The pelvic curve is practically absent and it has also a sliding lock. The majority of transverse and posterior occipital positions can be manually rotated at least to an anterior quadrant, from which position the operation can be completed by the usual type of forceps.

Forceps on after-coming heads. The skillful use of Maricean-Smellie-Veit manoeuvre will enable the obstetrician to deliver the majority of after-coming heads. In a number, however, difficulty is experienced and death to the foetus is caused by intra-cranial injury or injury to the cervical cord or vertebra by too forceful pulling from below or pressure from above.

The ordinary forceps may be used on the after-coming head provided it is in the pelvis. The child's body must be raised vertically and blades applied to head with the usual precaution.

Prognosis of Forceps

Has a definite relationship to following factors.

(1) The fidelity with which the conditions and indications for the use of forceps are observed.

(2) The skill and judgment with which the operation is done.

(3) The completeness of the asepsis which is practised. A roughly done forceps operation may be one of the bloodiest of procedures. Unfortunately, some physicians seem obsessed with the idea that the instrument having been put on, the head must be delivered as soon as possible, and forceful efforts

to accomplish this are made. Carefully done obstetrical work with attention to mechanicism of labor will be attended with a minimum of injury.

Prognosis to Mother. Prognosis is naturally worse with more difficult forceps operations. The vaginal walls may be stretched, torn, or divulsed from their attachments. If traction before dilatation uterine supports will be injured. Lacerations of cervix will follow same error. Injuries to perineum by too rapid or too forceful operations. Failure to recognize malpositions causes many difficult, bloody and traumatic deliveries. Non-recognition of degree of engagement and slipping of forceps or too long or too small heads likewise result in tears and lacerations.

Prognosis to Child. A proper application of forceps to a head lying in a favourable diameter and due observance to rules will cause cutting and bruising of the external soft parts of the foetal head with great rarity.

Facial paralysis caused by compression of the facial nerve is seen rather frequently, and disappear within a few days. Cephalhematoma, sometimes seen, disappears in about four to six weeks. Compression of the cord may be guarded against by foetal heart sounds if the forceps are locked. Intracranial injuries are the most serious results of traumatic injuries. They include haemorrhage, laceration of tentorium cerebelli and falx cerebri. Therefore skillfully used the forceps may be a means of lessening the danger to both mother and child. Exhaustion of the mother may be lessened and the tendency to post-partum haemorrhage due to over-fatigue of the uterine muscle lessened.

Summary.

- (1) Recognize indications for use of forceps both maternal and foetal.
- (2) Be familiar with one type of forceps.
- (3) Be sure that the conditions, as laid down for the safe use of forceps, are fulfilled.
- (4) Once the forceps are applied correctly do not use brutal force but intermittent traction and thus avoid grave damage to foetus and mother.

Acute Pancreatitis

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THE occurrence in my practice within the past six months of two cases of pancreatitis—one mild and associated with longstanding cholecystic disease, and the other hyperacute and not associated with any demonstrable disease in the bile passages—has caused me to become *pancreas* conscious. It would not be amiss, therefore, before going on to a resume of the two cases, to review briefly the clinical features of acute pancreatic inflammation, or necrosis as some writers prefer to call it.

Most writers agree that the vulnerability of the pancreas to infection lies chiefly in the close proximity of its ducts to the estuary of the bile passages. A lesser but well recognized cause is duodenal ulceration (1). Infection may also be carried into the pancreas from the liver by lymphatic vessels. In some cases none of the above causes appear to be operative. Archibald (2) concludes that the following are important factors in the causation of pancreatic necrosis:

1. Change in composition of the bile due to bacterial action with an increase in the proportion of bile salts and a decrease of mucin.
2. Spasm of the sphincter of Oddi due to hyperacidity.
3. Abnormal increase of pressure in the biliary system
 - (a) by a sudden closing of the cystic duct by stone or inflammatory swelling of the mucosa.
 - (b) by a full meal.

Acute pancreatitis is subdivided into (a) acute pancreatic oedema, (b) acute pancreatic necrosis or haemorrhagic pancreatitis, and (c) suppurative pancreatitis. They are but different stages of the same process.

The destruction of pancreatic tissue is due to the activation of trypsinogen within the gland itself. This is considered to be due in most cases to the passage of infected bile or duodenal contents through the ducts of Wirsung and Santorini. It is suggested by Moynihan (3) that in less severe cases of pancreatitis invasion of the gland occurs only through the accessory duct of Santorini. In a few cases minute haemorrhages and bacterial toxins resulting from a pancreatic lymphangitis, secondary to chronic duodenal ulceration, may be the activating agents.

Acute pancreatitis is a relatively uncommon disease. Abell (4) states that in an experience embracing over 2,000 operations on the biliary tract, he encountered but 30 cases of acute pancreatitis. Yet no other catastrophe within the abdomen produces at once such unendurable agony and so profound a collapse. At the onset, in the very acute cases, there is intense pain in the epigastrium radiating to the interscapular region and sometimes to the left lower costal region of the back. The pain is more intense than that encountered in the most severe biliary colic, the perforation of a gastric or duodenal ulcer or in an acute intestinal obstruction. The usual quarter of morphia has little effect. There is exquisite tenderness of the abdominal

wall above the umbilicus, and some resistance is felt on palpation, but there is not nearly the boardlike rigidity that one encounters in perforation. Vomiting is early and persistent, but never becomes foul as in obstruction. Symptoms of shock and collapse set in early as is shown by a rapid thready pulse and shallow accelerated breathing. A striking feature in the hyperacute cases is the dusky cyanosis about the face, nose, ears, neck. This is probably due to toxemia caused by the absorption of protein metabolites. Unlike that of acute biliary disease the tenderness is more pronounced in the midline and to the left. At first the temperature may be subnormal, but after a few hours there may be a rise to 102 or 103. Some cases show varying degrees of jaundice at the outset. Examination of the urine may show some bile and sometimes sugar. An important feature of the urine of acute pancreatitis is a marked increase of the diastase content. Even if an accurate diagnosis is not made, one cannot mistake the urgency of the symptoms, and immediate operation is a commendable procedure.

At operation the well known features of the disease are readily recognized. Aside from the incision of the peritoneum overlying the pancreas and drainage of the lesser sac, drainage of the gall bladder, even in the absence of gall stones, should be instituted if the patient's condition will at all permit. Unless there is gross pathology, removal of the gall bladder should not be performed even if the patient's condition will permit it. Some writers point out that some cases of acute pancreatitis may relapse into a chronic state, in which condition pressure on the common bile duct by an enlarged and sclerosed head of the pancreas may produce biliary obstruction necessitating the performance of a cholecystoduodenostomy at some later date. Griffiths (5) states that the failure to relieve symptoms following cholecystectomy may be due to the overlooking of a chronic pancreatitis, and the failure at the time of the operation to establish adequate drainage.

It is well to note that a sudden onset of severe diabetic coma may mean the presence of an acute pancreatitis. Howard F. Root of Boston (6) reports that acute pancreatitis, unsuspected during life, was found as a cause of death in 4 cases of 26 in which death occurred during or after recovery from diabetic coma. I. I. Lemann (7) mentions a report of a case by Naunyn of Vienna in 1898 as follows—"On November 26th a child of four, of a diabetic mother, fell ill with 'febris gastrica acuta'. November 27th night urine contained 5.8% sugar. December 3rd, 3½% sugar. December 8th, 2% sugar. On December 13th the child was sugar free, and remained so for a period of 20 years during which the case was followed." Isn't it just possible that "febris gastrica acuta" was in reality an acute pancreatitis?

There is some difference of opinion now regarding advisability of immediate operation in acute pancreatitis. The 1937 Year Book of General Surgery quotes Wildegans of Berlin (8) as having only 3 deaths in 28 cases treated medically, but casts doubt on the conclusions drawn because of the question of the accuracy of the diagnosis in cases treated medically. The mild cases may perhaps be temporized with, but in the acute fulminating cases immediate operative interference is undoubtedly the best course. Certainly the outpouring of the highly irritating fluid from the pancreas had better find an exit from the peritoneal cavity.

Recurrence of an acute pancreatitis is possible, even after surgical interference. Hamilton Bailey (9) cites a case of a man who had four acute

attacks. He was operated on during the third attack, but succumbed to a fourth attack before operation could be performed.

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8. Year Book of General Surgery. 1937, p. 592.
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I now wish to mention briefly the two case which came to my notices recently.

Case 1. Mrs. I., age 62, came on with severe epigastric pain and vomiting twenty-four hours before I was called. When I saw her, her temperature was 99.8, her pulse 96. There was some jaundice. On examination there was marked tenderness and moderate rigidity in the right hyperchondrium, and in the epigastric region. She gave a history of chronic indigestion and repeated attacks of upper abdominal pain radiating to the right scapular region and to the interscapular region. A tentative diagnosis of cholecystitis with cholelithiasis was made and she was admitted to the hospital here.

Because of the jaundice, and because of a moderate hypertension and sepsis in the mouth she was placed on expectant treatment. On admission her white cells were 10,000, young forms 4, bands 19, and segmented polymorphs 55. Coagulation time $8\frac{1}{2}$ minutes. The next day her temperature and pulse remained about the same, but her jaundice was somewhat more intense. She was continued on fluids with glucose. On the morning of her third day her temperature was 98.8, pulse 90. The jaundice was very pronounced. White count—total cells 19,200, young forms 11, bands 30, segmented polymorphs 43. At this stage I decided on operative interference. I found the gall bladder distended with muco-purulent fluid and containing several phosphatic calculi. The pancreas was greatly enlarged and small areas of fat necrosis were in evidence in the omentum and retro-peritoneal fat. There was no fluid in the peritoneal cavity or in the lesser sac. The gall stones were removed and the gall bladder drained. The pancreas was drained through the gastro-hepatic omentum. She made an excellent recovery. Jaundice disappeared in 4 or 5 days. She stayed in hospital four weeks, and was discharged with a small sinus in the upper incision which persisted for four weeks more. She exhibited no sugar in her urine either before or following the operation. She did have some bile in her urine before operation, but this disappeared in two or three days following operation. Her urinary sugar did not rise even with the administration of intravenous glucose for 24 hours following operation.

I feel that this woman had had mild attacks of pancreatitis on previous occasions and that the present attack was a culmination of a longstanding chronic pancreatitis.

Case 2. Mrs. L., age 35, referred to me recently with a history of having come on with intense epigastric pain and vomiting about 36 hours previous

to admission. An attack of cholecystitis was suspected, and she was given morphia and belladonna, neither of which gave any relief. When I saw her she presented a state of collapse. She had a rapid pulse of poor volume, her temperature was 102, and her breathing was shallow and rapid. There were patches of dusky cyanosis on her chin, cheeks and nose. Examination of the abdomen elicited exquisite tenderness in the epigastrium and right hyperchondrium, and there was considerable resistance to the upper abdominal wall, but no boardlike rigidity. Her attending physician stated that on the previous day she exhibited slight jaundice. Urinalysis showed no sugar, a faint trace of albumen, and a faint trace of bile. Her white count was as follows—total whites 20,000, young forms 6, bands 21, segmented 46. A diagnosis of "acute abdomen" was made with a strong probability of cholelithic disease. I had a feeling that we may be dealing here with a pancreatitis, but I did not voice the thought. I think that the infrequency with which one encounters acute pancreatitis in a small town makes one hesitate to make the diagnosis even in the presence of suggestive symptoms.

On operation I found an acute haemorrhagic pancreatitis, but no demonstrable pathology in the gall bladder or common bile duct, nor ulceration of the duodenum. Drainage of the pancreas and lesser sac was instituted, but the gravity of her condition withheld me from the temptation of draining her gall bladder. She had two very stormy days post-operatively. Her pulse was very rapid—as high as 160—and of poor volume, and her respirations were between 45 and 50. Oxygen was administered frequently, and she was given continuous intravenous glucose-saline and small doses of Insulin. At the time of writing, seventeen days following operation, she is doing very well.

Summary

1. While the etiology is in some cases obscure, the majority of cases are associated with gall bladder disease.
2. While mild cases do recover without operation and apparently some of the more severe ones as well, most authorities agree that it is unwise to temporize with acute pancreatitis.
3. Drainage of the gall bladder should be instituted in all cases at operation, but removal of the gall bladder should not be performed unless there is gross pathology.
4. In a sudden onset of acute diabetic coma it is well to bear in mind the possibility of acute pancreatitis being the cause.
5. Pancreatitis may recur, even following operation, and prognosis should therefore be guarded in all cases.
6. In a differential diagnosis of acute upper abdominal lesions early appearance of profound shock and collapse should make one suspicious of acute pancreatitis.

On the Relationship of Focal Infections to Arthritis

JOHN C. WICKWIRE, Liverpool, N. S.

DURING the past decade medical men on this continent have more or less accepted "focal infection" as the chief etiological factor in all rheumatoid conditions. During the past several months, however, authorities have grown skeptical of this theory. In fact it would appear that the pendulum is now to swing in the opposite direction. The term "local infections" is preferred by some indicating that it would be wiser not to focus our attention on focal infections but to regard them as possible contributing factors. It is interesting to note that our theory of focal infections has never been generally accepted in Europe. In this paper it has been my purpose to scan some of the recent literature on this subject in order to discover the relationship of *local* infections to rheumatoid conditions.

Rheumatoid Arthritis.

The patient with rheumatoid arthritis shows many of the characteristic signs of toxemia. He is pale, pasty, has frequently some degree of pyrexia, palpitation, sweating, leucocytosis, increased sedimentation rate and has pathological changes about the joints which suggest an infective etiology. Attempts have been made to culture organisms from joint aspirations and to type them with those found in foci. Some workers appear to have been successful to a degree in this attempt; others produce conflicting evidence. Briefly, the evidence seems to point here to a toxemia, possibly infective in origin, though not well proven. Nevertheless, careful statistical survey by such noted authorities as Pemberton have proven to our satisfaction that foci of infection do play a most important role as a contributory factor in the etiology of rheumatoid arthritis. Any of the foci may be at fault; though dental, nose, throat and genito-urinary are the most important, and these in the order named.

In a report by the American Committee for the control of Rheumatism they state: "In an early case appropriate removal is often spectacular in its effect. The treatment of an early case is never complete without the removal of foci of infection." They have also made the observation that patients who have carried foci of infection for years receive little if any benefit by their removal; and further, that often unwise removal of supposedly etiological foci of infection, especially late in the disease, has little if any effect on the course of arthritis.

Still's Disease of Children, in which there is a multiple arthritis, fever, pallor, sweating, wasting, enlargement of the spleen and lymphatic glands, apparently is rheumatoid arthritis modified by age. Here again, at least theoretically, local infections should be adequately dealt with.

There is evidence suggesting that neuritis, bursitis, fibrositis (myositis), stiff neck, lame shoulder all are a part of the syndrome which sooner or later may fall into the category of premonitory signs of arthritis and more frequently rheumatoid.

Rheumatic Fever.

In rheumatic fever there is a systemic toxemia, probably of bacteriological origin, accompanied by fever, leucocytosis, swollen painful joints and with a marked tendency for involvement of the soft tissues, particularly the heart. Some evidence is forthcoming to incriminate the streptococcus. Haemolytic and non-haemolytic varieties have been recovered from the blood and tissues; though, according to Swift, the cause is yet undetermined. That foci of infection play a part is generally accepted on this continent. Swift summarizes his view of the question as follows,—“There is much clinical evidence to support the contention that focal infection has an important bearing on the evolution of this disease, but up to the present the importance of the focus was thought to rest in its role as a nidus from which the virus was disseminated throughout the body. Our conception of the focus, on the other hand, is of an area where the allergizing substance is produced and whence it is spread to sensitize various tissues. This conception does not deny that virus may also gain entrance to the blood stream from a focus, but stresses the allergizing effect of such a focus. From this hypothesis it is easy to understand that the state of the tissues of the patient is the most characteristic feature of the disease and that the specificness of the streptococcus recovered may play a relatively unimportant role.”

Acute rheumatic fever frequently follows an attack of sore throat, commonly with definite tonsillitis, catarrhal fever or symptoms resembling those of acute appendicitis. The frequency with which tonsillitis precedes rheumatic fever suggests to us that there is some direct relationship between the two diseases. However, in exhaustive statistical surveys, tonsillectomy does not reduce the incidence of sore throat nor the actual incidence of rheumatic fever. Beckman,—“Until someone produces incontrovertible evidence that children without tonsils are definitely protected against rheumatism, routine tonsillectomy is not justified; but when the tonsils are large, ragged and septic or small and accompanied by enlarged glands the removal of tonsils and adenoids is probably well worthwhile.” The time at which this operation is performed is of major importance. It should not be attempted until joints, pulse, temperature and sedimentation rate are normal. (It is interesting to note that the English writer Savill does not mention focal infection in acute rheumatic infections.)

Hypertrophic in contrast to atrophic arthritis does not present the characteristic signs of a toxemia. As Boyd states,—“There is no good evidence that the disease is due to bacterial infection.” There is no hyperpyrexia or leucocytosis. Anemia is not a feature. The sedimentation rate is normal. It is a senile change. At the Mayo Clinic 60% of the patients over 50 years of age, not complaining of arthritis, were found to show hypertrophic changes in the spine. When joints eventually become fixed it is not the result of fibrous adhesion, the product of inflammation, but rather it is due to the mechanical derangement of the articulating surfaces.

The underlying pathological change is essentially a progressive degeneration of cartilage, bone, ligaments and periarticular tissues. Concomitant with this, however, there is a proliferation of cartilage and bone chiefly noted at the margin of the joints as the characteristic exostoses. The dominating end clinical picture is essentially a hypertrophy of bone with formation of osteophytes.

Gonococcal arthritis is more definitely infective in nature. It frequently sets in abruptly with fever and chills, commonly affecting one joint though it

may be multi-articular. The joint is hot, swollen, extremely painful and may contain a serous or purulent exudate. The disease frequently follows the Neisserian infection of the genito-urinary tract, though it occasionally accompanies gonococcal ophthalmia. The relationship of focal infection as an etiological factor is possibly more definite than in any other form of arthritis. The specific organism has been recovered from joint aspirations and foci. Gonoccal arthritis may, however, follow an attack of gonorrhoea when the focus of infection, notably the prostate, may show other organisms, especially the staphylococcus. The gonococcus apparently has given away to its more persistent neighbors of the pyogenic group. At this stage the disease may take a multiarticular form, thus closely simulating rheumatoid arthritis. This fits well into the pathological picture.

Successful treatment of gonoccal arthritis depends largely on adequate attention to these foci of infection—urethritis, prostatitis and salpinaitis.

In general it would appear that foci of infection do play a definite role in the etiology of certain forms of rheumatic affections. In our treatment, however, let us give focal infection worthy consideration but not undue attention. Treatment of rheumatoid conditions to-day closely resembles that for tuberculosis; viz, rest, high caloric diet, vitamins, fresh air, etc. and these factors are frequently of greater importance than eradication of local infections.

Summary.

1. Focal infection is an etiological factor in early rheumatoid arthritis. Removal in early cases is often followed by spectacular results.
2. Removal of local infection in chronic rheumatoid arthritis has little if any effect on the course of the disease.
3. Rest, local and general, vitamins, etc. are of greater significance in treatment than the eradication of foci of infection.
4. Local infections bear little, if any, relationship in the etiology of hypertrophic arthritis.
5. In gonoccal arthritis focus of infection bears first relationship to the etiology.

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THE NOVA SCOTIA MEDICAL SERVICE—A PROPHECY.

AT the risk of appearing to be a maker of platitudes—we make the prophecy that some day there is going to be a well organized medical service for Nova Scotia.

What have we at the present time? A multitude of doctors, perhaps too many, most of them well, and many of them excellently trained; a great many of them working too hard—and at the same time the country is getting a second or third rate medical service. The reason to a very large extent is lack of proper organization and co-operation. Some districts are over-hospitalized, others have no facilities at all. It is all haphazard and varies with local pride or self-respect. Sometimes it bears a close relationship to the need, at other times it is more related to local generosity or the reverse.

The ideal arrangement would be to have a medical centre or centres and to have local, municipal, county or district hospitals organized in a well thought out scheme to cope with general, district or local needs. Such a scheme would place hospital facilities within the reach of most practitioners. With properly regulated hospital practice the type of service rendered tends to improve.

Of the possible medical centres let us examine Halifax. It would probably be the largest. The institutions of the area that would enter into a general scheme are—The Halifax Infirmary, The Halifax Children's Hospital, The Grace Maternity Hospital, The Victoria General Hospital, The Nova Scotia Hospital and The Nova Scotia Public Health Laboratory and Pathological Institute.

This is quite an imposing array and should fill all the requirements of a medical centre, and so it would if it were properly organized and brought up-to-date.

There is not very much to be said about The Halifax Infirmary, The Halifax Children's Hospital, and The Grace Maternity Hospital other than that they are doing their share of the work efficiently and well.

The Victoria General Hospital is not only obsolete despite the dab or two of paint and tidying up it had last fall, it is also overloaded. Halifax for more than a generation has sponged on the Province and has cluttered

the wards of what should be an active hospital with the old wreckage of her slums. If Halifax will not build a city hospital she should at least maintain a convalescent home so that the wards of the Victoria General could function in their proper capacity. There are many factors delaying proper development of the Victoria General Hospital—sectional jealousy through the province objecting to the spending of money in Halifax to mention one. But if we are not to have a fully equipped medical centre in Halifax where else in the province are we to have it? If the Victoria General buildings are obsolete and overcrowded what of the staff? Brains and technical ability are there in plenty but the organization is not up-to-date: for example, there is no Diagnostic Service. If one refers a difficult case to the Victoria General, it sometimes happens that the patient comes home a week or so later with a list of negative findings from the services contacted and no positive diagnosis. With a properly organized diagnostic service this would not happen.

There is no Fracture or Orthopaedic Service. There is no Physio-therapy Department. There is no Neuro-surgery Department and there is no Psychiatric Service. A difficult nervous or border-line mental case or one of temporary insanity can get no efficient institutional treatment in Nova Scotia unless the patient is first certified as insane. For obvious reasons this is often undesirable. Many of these cases are in home surroundings where adequate care and treatment are impossible. Our present lack of care in dealing with them is not far removed from barbarism. Most civilized countries now have systems for caring for this type of patient. They can be admitted voluntarily or if necessary may be detained temporarily in order to make an accurate diagnosis and determine if certification is necessary. To organize these new departments or services would mean sacrifices for certain men, but if the thing were developed slowly and methodically an equitable distribution of work should be arrived at and no one should suffer too heavily.

The Nova Scotia Hospital like the Victoria General carries too heavy a load. It should be a central institution for diagnosis, teaching and treatment, and there should be voluntary admission for certain types of case. There are local institutions in some municipalities which are efficiently and much more cheaply run than the Nova Scotia Hospital, and many cases of harmless and incurable insane should be transferred to them thus making the Nova Scotia Hospital a more active therapeutic unit.

Public Health with us is in some respects quite backward. This is due to public ignorance and indifference on the part of the profession as a whole, rather than to any neglect on the part of the Department of Public Health.

We find school teachers having to enforce vaccination, conscientious objectors allowed to evade their duty, people with active tuberculosis going about infecting the population, dangerous or potentially dangerous milk sold throughout our province, no systematic effort to control venereal disease, and when an effort is made to encourage a frank discussion of the problem the only considerable response from the profession is from those of us of whom it has been aptly said—"There exists in people of German and British extraction an instinct to pay to virtue the homage of hypocrisy, an instinct that makes it difficult for them to look with clear eyes on the realities of life."

When a Minister of Public Health was first appointed for Nova Scotia we observed members of the profession at the annual meeting of the Nova Scotia Medical Society meeting at Truro clustering around the New Minister telling him what a fine fellow he was. This was a perfectly obvious truth,

but distinctly unhelpful. If we had told him our troubles, what we needed and what we wanted and had adopted the Spartan Mothers attitude towards him and told him to come back with his shield, or upon it, he might have accomplished even more than he did during his term of office. If we wish to aid the cause, we should still adopt this attitude towards our Department of Public Health.

Our present practice of appointing part time Health Officers for towns and municipalities should soon be a relic of the past. The development of public health districts with full time district health officers will be very interesting to watch. That the scheme is being developed slowly and carefully speaks of wisdom on the part of those concerned. Rapid development or hasty appointment of inexperienced personnel could do untold harm.

At the present time certain municipalities are looking after their tuberculous patients in a most efficient manner co-operating with their doctors and with the Nova Scotia Sanatorium in a whole hearted way. All suspects and contacts are examined and a steady stream of patients go to the Sanatorium for education, rest, treatment and to have their type of treatment determined. Many of them then return to their homes under the supervision of their local doctors: some get their pneumothorax refills locally, and fresh patients go forward to the Sanatorium. Other municipalities do practically nothing. There is no quarantine between municipalities. It all seems hardly fair.

From the foregoing it may be inferred that there is much to be done. Doctors, towns and municipalities are not co-operating with one another as they should. Towns build hospitals when what they really should do, is buy a good ambulance and put it in the local fire hall ready to transport patients to the hospital in the neighbouring town. Other towns that should have hospitals refuse to build them. Our medical centres have excellent talent and facilities, but further development and co-operation is required. Our system of Public Health is struggling to overcome public ignorance and professional apathy. What are the Medical Men of Nova Scotia doing about it? We have really not noticed anything. But what they can do and what they will do, is make a study of the needs of the province as a whole and determine a proper zoning of equipment and talent to replace the present irregular and wasteful distribution. So that gradually by education and experiment and constant endeavour whether we have State Medicine or private practice, some day there is going to be a well organized medical service for Nova Scotia.

H. A. C.

CASE REPORTS

Multiple Papillomata of the Bladder.

Mrs. F. W. Age 60.

My personal knowledge of this patient goes back three years during which time I have been treating her for a moderate hypertension.

In June, 1937, she complained of symptoms which had recently appeared and consisted of itching and burning on urinating and a dull dragging sensation low down in the abdomen. Physical examination did not reveal anything of note but urinalysis showed a small amount of albumen with quite numerous pus cells. At that time no blood cells were seen. Her symptoms were not at all severe and I considered that she had a mild cystitis. Under treatment for this condition her symptoms soon subsided and the pus cells disappeared from the urine. The albumen, in slight amount, still remained but it had been present a number of years and I attributed it to renal changes associated with her hypertension and arteriosclerosis.

Late in the summer of 1937 she returned bringing with her a specimen of urine which had a very definite reddish tinge. In reply to my questioning she told me that at intervals during the summer she had noticed redness in her urine and finally one specimen so red that she brought it in for testing. Microscopic examination revealed very numerous red blood cells but no pus cells. She stated that the haematuria at all times was painless although she complained again of a dragging sensation in her lower abdomen. Otherwise she felt quite well.

Her condition obviously calling for cystoscopy, the procedure was carried out at the Dawson Memorial Hospital. It showed extensive tumour masses situated near the ureteral orifices on each side, the orifices both appearing normal. The masses were of the papillomatous type and apparently benign in nature.

The case was next referred to Dr. G. A. Winfield in Halifax who repeated the cystoscopy and whose findings were corroborative of those already obtained. The pathologists' report of a biopsy carried out at the same time revealed the tissue to be a part of a benign papilloma.

The type of treatment in these cases depends on the size of the growth, the usual rule being that if the tumour is the size of a marble or smaller it can be destroyed completely by fulguration through the cystoscope. Large and multiple growths are best treated by open operation. Accordingly under gas oxygen anaesthesia a midline supra pubic incision was made, the bladder was dissected free of peritoneum, picked up with sutures and opened. Three large masses were found, one the size of a large walnut at the internal urethral orifice and two similar ones above the right ureteral orifice. They were removed en masse by means of a tonsil snare and the bases fulgurated. The bladder was closed in layers around a small supra pubic catheter and a catheter was left in the urethra as well. For 36 hours irrigation with potassium permanganate was carried out, through the supra pubic catheter and out the urethral. Irrigation was then stopped, the supra pubic catheter removed and the urethral one was taken out in ten days.

All specimens were examined by the pathologist and reported as benign papillomata.

The patient made a very good recovery and has been feeling well ever since with no recurrence of bleeding. She will be cystoscoped at regular intervals for possible recurrence in which event fulguration through the cystoscope before the growth attains any size will be the treatment.

Concerning papillomata of the bladder in general, a few facts may be recalled. They are the commonest growths in the bladder, are most common in men between 25 and 40 and are rare in women. Unless destroyed they steadily increase in size and in addition daughter growths make their appearance by implantation, occurring when the mucosa of the empty bladder contracts upon the original papilloma (kiss cancer). As time goes on, malignant changes are prone to occur in which case the papilloma becomes a carcinoma which invades the bladder wall and gives rise to metastases. The characteristic early symptom of the growth is painless haematuria. Pain is not in evidence except in advanced malignant cases. The haematuria is intermittent, each attack lasting a few days or a few weeks and then disappearing for a variable period. The bleeding starts or stops without obvious cause but, as the growth progresses, becomes more pronounced and more continual until the patient may become profoundly anaemic. Irritability of the bladder, at the onset, may be due to the irritation of a large growth but is more commonly the result of a cystitis with an alkaline urine. Except for the anaemia mentioned, the general health may be unaffected for years while the growth may persist a very long time without giving trouble. The longer it lasts, however, the more likely it is to become malignant.

The diagnosis is made with the cystoscope in accordance with the rule that a symptomless haematuria demands cystoscopy. A final point is that if induration or swelling can be felt either from the abdomen, rectum or vagina, malignant changes have occurred in the growth.

In conclusion, I should like to thank Dr. Winfield for the interest which he has shown in the case presented.

W. E. POLLETT,
New Germany.

Ultra Short Wave Therapy.

Male, age 36 years.

Personal and family history negative.

Present illness. In March, 1936, patient had an acute tonsillitis which was followed one week later by a right acute otitis media. The drum opened by itself and has discharged ever since, the condition becoming chronic. The patient had treatment for over a year by syringing canal with hydrogen peroxide but condition did not clear up. In December, 1937, patient first consulted me complaining of severe pain on the right side of the head in the ear region and discharge from the right ear.

Examination. Revealed a healthy looking individual but in evident pain. Temperature and pulse were normal. Examination of the right ear drum with auriroscope revealed an opening in the drum membrane posterior to handle of malleus. A yellowish discharge was noted. The drum was much

thickened and grayish red in colour. A ticking watch was heard at three inches. No tenderness over mastoid. Sinuses were apparently normal.

Treatment. I advised patient to immediately stop all treatment with syringe but to keep ear canal clean with pledget of cotton dipped in alcohol. The patient's head was exposed to ultra-short wave six meter, with electrodes placed laterally on head and tuned in at 100 milliamperes for sixteen minutes. Immediately after the first treatment patient noted cessation of pain. I treated the patient with the same exposure at daily intervals for two weeks and the pain did not recur again and the discharge had practically ceased. The opening in the drum was also much smaller. For two more weeks treatment at two-day intervals was carried on and the discharge ceased completely. Four more treatments were given and the drum healed completely.

Patient was then able to hear a watch ticking at eight inches from the right ear. Thus in five weeks' treatment by ultra-short wave six meters, a chronic otitis media was cured which had resisted other forms of treatment. Undoubtedly but for this treatment the patient would have had to have surgery.

I have recently had two similar cases with the same excellent results in treatment by ultra-short wave.

RAYFIELD G. A. WOOD,
Lunenburg, N. S.

Occipitoposterior Position.

Female, age 19 years.

Personal and family history negative.

Diagnosis, full term pregnancy.

Measurements, interspinous, 25 c.m.; intercrystal, $27\frac{1}{2}$ c.m.; external conjugate, 20 c.m.; diagonal conjugate, $11\frac{3}{4}$ c.m.; transverse outlet, 9.5 c.m.

The patient had an uneventful prenatal period with blood pressure and urine normal at all examinations. The membranes ruptured at 2 a.m. with very slight contractions occurring.

On examination—(1) Palpation: foetal back to maternal right flank; extremities, feet to left, head below.

(2) Auscultation: heart sounds heard in right flank.

(3) Rectal: head at pelvic inlet; one finger dilatation. Diagnosis of R. O. P.

At 10 a.m. contractions began getting stronger and were of the 5-6 minute, 25-30 second type. At this stage six grains of nembutal were given. Rectal examination showed two fingers dilatation with the head in high mid-pelvis. At 2.00 p.m. the head was in centre mid-pelvis with dilatation four fingers and contractions every 2-3 minutes and lasting 40-45 seconds. Nembutal gr. III was repeated. At 3.30 p.m. dilatation was complete and vertex had advanced slightly to low mid-pelvis. The patient was allowed to remain in labor for another hour with very little, if any, progress and as contractions were lessening in force I decided to deliver patient. She was anaesthetized with ether and being a home case was put up in leg-holders. The patient was then scrubbed and catheterized. The perineum was carefully "ironed out" with success and vaginal examination made. The cervix was fully dilated and marked caput found. Vertex was in mid-pelvis with posterior fontanelle toward right sacroiliac joint confirming diagnosis of R. O. P.

First manual rotation of vertex was tried without success, the head always reverting to former position. As the bladder was empty, head engaged and well molded, membranes ruptured, cervix fully dilated, and position known, I decided to do a modified Scanzoni's manoeuver with the Tucker-MacLean blades.

(1) A cephalic application of forceps was made with concavity of blades looking forward, that is, towards the baby's face.

(2) As flexion of head was poor, before locking the forceps, the handles were depressed somewhat to bring the blades of forceps more nearly in long diameter of ovoid, which had, as its poles, the vertex and shin.

(3) The forceps were locked and raised toward right groin; this favoured flexion.

(4) Without traction, the handles were then carried around in a wide arc so that at the end of the manoeuver the handles pointed toward the floor and the occiput was under the symphysis pubis with the sagittal suture in anteroposterior diameter.

(5) The blades were then taken off and the right reapplied just to prevent slipping back of the head to former position.

Intermittent traction was then made and the vertex very carefully fixed in vulvar orifice. The forceps were then removed and the head shelled out.

The cord was around the neck twice. This was clamped and cut and a living male delivered. The child weighed $8\frac{1}{2}$ lbs., had no lacerations on head and began to breathe immediately. The perineum showed a first degree laceration which was sutured with No. 2 twenty-day chromic cat-gut. The vaginal walls were not torn. The cervix had slight laceration which was sutured with twenty-day chromic cat-gut.

The patient had an uneventful post-partum period.

RAYFIELD G. A. WOOD,
Lunenburg, N. S.

A Case of Acute Lymphatic Leukaemia.

During the month of April we were called to visit a young man of 32 years. His complaint was: (1) Sore throat. (2) Sore joints. (3) Chills. (4) Headache.

His family history was not unusual in any respects.

His personal history yielded nothing except a note of repeated sore throats and he had been treated but a matter of weeks previously for "rheumatism". He had worked regularly until date of onset of complaint.

His present illness showed an onset of three days previously, beginning with general malaise, sore throat, vague joint pains and these rapidly increased until he experienced his above complaints and medical advice duly summoned.

At that time he presented the following features clinically:—

Inspection—Young man of about stated age, bed fast, apparent recent and marked loss of weight, propped up in bed, flushed.

Head and neck investigation revealed acute tonsillitis and tongue markedly dry, furred; painful deglutition; lips peeling.

Cardio-vascular—B.P. 120/80; pulse 120, regular but poor quality; soft systolic murmurs in mitral area, conducted into axilla; no enlargement.

Abdomen—Normal findings; no enlargement of spleen noted.

Urine—Albumin 4 plus; casts, numerous and hyaline in nature; sugar, negative.

Extremities—Ankles and knees greatly swollen, red and tender. No Aschoff nodules noted.

Reflexes not attempted.

Blood—Unfortunately only an estimation of Hb. was made at this time—60% Tallquist scale.

Diagnosis was that of rheumatic fever and the usual treatment was instituted, fortified by ventriculin with iron. Advised tonsillectomy as soon as health was fully recovered.

Owing to distance from town and impossible condition of roads in the spring we did not again see him but the periodical "follow-up" by mail indicated uneventful recovery and patient going fishing at will instead of coming to town for check up of heart and kidneys.

A month later I was advised by an eye, ear, nose and throat specialist that the patient had presented himself for tonsillectomy but was not good operative risk as he had low grade fever, was profoundly anaemic, petechial haemorrhage of the skin noted, retinal haemorrhage found, and spleen questionably enlarged. He had advised him to see his regular physician at once.

It was some ten days later that I visited him.

It appears he had gone along well for a month, then his "illness come back" again; fever, prostration, headache, general malaise—but no joint involvement. This apparently abated somewhat and he felt it was "now or never" for the tonsil enucleation—hence the trip to the specialist.

He now presented an extremely wasted body, covered by a skin of yellow tint, the continuity of which was in turn broken by the speckling and blotches of purpuric haemorrhage. The patient was extremely dyspnoeic. Albuminuria and cylindruria were present. The eye grounds revealed numerous retinal haemorrhages, lungs not found abnormal, but heart enlarged to extent of apex beat being found about $4\frac{1}{2}$ inches from midline in 5th interspace and a marked murmur, systolic and blowing in nature found in mitral area.

The regional glands of neck were enlarged moderately and the spleen also but moderately increased in magnitude.

The Hb. was now but 30% and the differential stain showed lymphocytes to be entirely predominant, to the extent of 90%.

The patient's fever ran at 101 degrees F.

He died four days later.

We submit this report as one containing most of the features in the classical acute leukaemia. The history of an individual of average health, the rather usual proceeding infection, the onset of leukaemic symptoms which was undoubtedly that which was interpreted by the patient as a return of his previous illness, the rapid down hill route to fatality.

Our regret is that we had not for comparison a record of complete blood picture at the time of the initial infection.

D. K. MURRAY

Liverpool, N. S.

Case of Syringomyelia.

The patient, a female child of four, was presented by her mother for investigation and advice. The mother complained that the child "was too rough in her play" to be a safe companion for her brothers and sisters and that she had recently become "too bad to handle easily".

The family history yielded no abnormal features. The two brothers older and the one sister younger were children of the average order.

The past history: The birth of the child was not unusual except for the use of instruments. The infant was regarded as an average child and thrived. The first note of the unusual came in the form of late dentition and tardy weight bearing. The first appearance of the former was at two years and the latter did not take place until sometime later. The child had been recently gradually increasing in irritability and would lie awake at night tossing, turning and generally creating a furor. Such accidents as burns or bumps, which elicited much distress from her brothers, were certainly borne with Spartan indifference by the patient. She suffered many such accidents due to her unsteady gait. The mother had her classed as "tough". At the age of two and a half her mother submits that all of her black hair fell out and was replaced three months later by dry, stiff auburn hair. She had contracted none of the ordinary diseases of childhood.

Physical Examination: Inspection revealed a young child of stated age, apparently not mentally alert and speech anything but distinct.

Head and Neck: Nothing abnormal except the dry, stiff, very sparse rust colored hair.

Lungs: Nothing abnormal.

Heart: Normal in all respects.

Abdomen: Normal in all respects.

Skeleton: Spine—moderate scoliosis and lordosis.

Extremities—interossei muscles of hand moderately wasted giving appearance of long skinny hand. Thenar and hypothenar eminences quite flat and wasted.

Nervous System: Reflexes were examined and found apparently normal except patellar which was slightly exaggerated. Babinski not elicited. No nystagmus present.

Cutaneous Sensation: Bilaterally absent on both hands and half way up left forearm. Blood could be drawn by pin prick from her hands or a very hot test-tube held in direct contact without attracting the child's attention. Owing to the uncooperative nature of the child the finer lines of demarcation could not be drawn.

As a matter of routine and with Lues in mind, a lumbar puncture was performed under ethyl chloride anaesthesia. No spinal manometer was at hand but as the stylet was withdrawn, a very forceful stream of spinal fluid was directed over and past the vial for reception. This continued unabated for some seconds until the pressure was reduced within the canal.

The pathological laboratory report was as follows: Appearance: Clear. Cell count: One. Protein: Fifty mg. per 100 ml. Copper reduction: Normal. Chloride: 720 mg. per 100 ml. Lange curve: .0000000000. Kahn test: Negative. Red blood cells: None.

Here we have a picture of regional absence of pain or thermal cutaneous sensation, trophic disturbances, muscular atrophy of the intrinsic muscles

of hands, spastic weakness of particularly the legs, giving the irregular and almost ataxic gait, definite vertebral curvatures of scoliosis and kyphosis.

The parents objected to any form of special measures such as X-ray so we are obliged to watch the subsequent progress.

Coincident with the removal of excess fluid, the extreme irritability has been practically removed from the picture and instead of her nightly "bed prowling" she sleeps soundly and well. The cutaneous sensitivity of her hands has returned slightly but definitely in the two weeks during which we have been following the case.

The pathogenesis which presents itself by cavity formation and neuroglial proliferation and pressure upon the anterior commissures has long been the subject of much discussion and this case apparently adds nothing definite to the issue—but, it has a few points of interest, for which we have presented it, namely:

- (1) Mother's interpretation of the child's behaviour.
- (2) Completeness of the clinical picture.
- (3) The relationship of spinal pressure and child's irritability.
- (4) Apparent relief of some part of pressure on anterior commissures restoring part of cutaneous sensation to date.

D. K. MURRAY,
Liverpool, N. S.

Lethargic Encephalitis.

Female, married, age 45.

Past History. One child was born in 1920; albumenuria at that time, cleared up after delivery. A normal appendix and a right ovarian cyst removed in 1925.

Present Attack. May 2, 1932, I was called to see patient, who had an attack of pruritis vulvae; she was well in every other way, and this condition cleared up in about three weeks.

June 2nd. I was again called to see patient, who appeared to be very nervous and unable to sleep; temperature 100.5, pulse 87, a slight cough. The nervous symptoms became worse each day, in spite of sedatives; reflexes normal; on walking patient had a staggering gait, and was unable to stand alone with her eyes shut; eyes and pupils normal; blood pressure normal.

July 2nd. Mental symptoms were pronounced, hallucinations and delusions at times; blood count normal except for a slight secondary anaemia; intention tremor present.

July 3rd. Took patient to hospital in Halifax where she became unconscious and very difficult to handle. A diagnosis of cerebral degeneration was made and she was sent home July 27th.

Further progress. Patient was unconscious on arriving home and she remained in that state for about three weeks, with occasional lucid periods. Incontinence of bladder and bowels, and difficulty in swallowing were present; also considerable salivation and tremor of hands. A nurse was put in charge, and bed baths, alcohol rubs, forced feeding and tonics comprising iron, malt and cod liver oil were given.

September 30th. Patient is gradually becoming more conscious; has control of bladder and bowels; swallowing food better and more normal men-

tally. She was able to get out of bed October 27th, and from that time on her mental and physical condition gradually returned to normal. This patient, who took sick in 1932, has been well ever since.

Discussion. Lethargic encephalitis is most difficult to diagnose, as each case presents a different train of symptoms. Two cases of mine started with the influenza, and after recovery, the encephalitis began with pronounced mental symptoms, going on to almost a coma, within a few weeks. One case had some facial paralysis at beginning, two had difficulty in swallowing, and all had an intention tremor and salivation. The mental symptoms include delusions and hallucinations, and suicidal tendencies. These are controlled by hyoscine hydrobromide. In all cases I have had, recovery has been complete and the Parkinson's syndrome has cleared up entirely.

G. A. BARSS,
Rose Bay, N. S.

Suppurative Encephalitis.

Child, male, age 2 years.

Past History. Eight months ago, while teething, developed a temperature of 106 and was sick for three days. The temperature dropped to normal on lancing the gums, and remained there until present attack.

Present Illness. Called January 7th, 1927. The child is not taking food, looks sick and pale and fretful; three teeth coming through the gums, tonsils enlarged and red, temperature 100.3 in groin; no vomiting; reflexes normal, no rigidity of spine or neck, ear drums normal.

January 12th. The child sleeps more than usual, but fretful when awake; the eyes have a peculiar fixed stare.

January 13th to 18th. Convulsions occur every day and several times a day; also marked tremors of left arm and leg and mouth. If the mother speaks to the child he will start to shake. These tremors sometimes last one hour. Temperature 100.6, pulse in proportion to temperature and regular; respirations normal; taking lots of milk, reflexes normal.

January 18th. Temperature 100 in groin; child has no use of left arm and leg.

Lumbar puncture done—fluid clear, pressure slight, lymphocytes 25 to field, sugar present, suspicion of albumen.

Blood count shows a white cell count of 23,650; Wassermann negative.

January 22nd to 24th. Child is very bright and no convulsions or tremors, probably due to relief of pressure by spinal tap.

January 25th. Drowsy; fixed appearance of eyes; some difficulty in swallowing; Babinski positive.

January 28th to February 2nd. Beginning loss of consciousness, increasing daily; Kernig sign positive on left leg, no rigidity of neck. The child died February 2nd without regaining consciousness.

Discussion. The history of teething, septic tonsils, the white cell count, Parkinson's syndrome and convulsions would point to a suppurative encephalitis. I could not get permission to move the child to hospital, so there was no way of confirming the diagnosis.

G. A. BARSS,
Rose Bay, N. S.

Abstracts from Current Journals

Early Diagnosis of Pulmonary Tuberculosis. GEOFFREY MARSHALL, M.D. F.R.C.S. *British Medical Journal*.

The author stresses the need of care by the general practitioner in the investigation of suspected cases of tuberculosis. A careful enquiry into family history contact and personal history should always be made. The early symptoms are those of toxemia, fatigue, loss of morning appetite and loss of weight, followed by cough, expectoration, night-sweats and haemoptysis in the later stages.

Physical examination cannot be relied upon but a careful sputum examination cultures being made if Tbc. bacilli are not found by other methods, the four hourly observation of temperature and X-ray examination should be employed before a patient is assured that he is free from tuberculosis. The occurrence of a sterile pleural effusion in the absence of evidence of malignancy the author regards as diagnostic. The occurrence of perianal fistulae is also regarded as very significant.

F. J. MACLEOD.

Endocrine Disturbance in General Practice. LEVY SIMPSON, M.A. M.D. *Clinical Journal*.

Endocrine Disorders should be carefully looked for by the general practitioner as minor degrees of the more serious conditions are often present and will often be relieved by proper Endocrine Therapy.

The picture of an Endocrine disease is not a static one, nor merely progressive but is characterized by waves and intermittent activity and hyperfunction may be replaced by hypofunction. It is also interesting to note that all the functions of a gland are not equally involved in the process.

Frohlich's Syndrome

This condition is due to primary failure of anterior pituitary function, and is characterized by failure of sex development and adiposity and dwarfism, the latter is not constant. Minor degrees of this condition are common and respond well to treatment with antituitrin S. If dwarfism is present growth should be stimulated by antuitrin G. Thyroid deficiency should also be treated if present.

Simmonds' Cachexia

This syndrome is due to destruction of the anterior lobe of the pituitary. The symptoms, dwarfism, subnormal temperature, bradycardia, low B.M.R. hypotension and cachexia. This condition is very rare in its fully developed state but minor degrees occur at the climacteric.

Cushings' Syndrome

A condition of the anterior pituitary characterized by amenorrhoea, sterility, adiposity, diabetes, kyphosis, and rarefication of the bones. Young females commonly affected, the condition is rare, treatment unsatisfactory.

Adreno-Genital Syndrome

This syndrome is due to hyperplasia of the adrenal gland and is characterized by the three symptoms amenorrhoea, adiposity and hirsutism. The hair being of male distribution. The treatment is unsatisfactory, minor degrees of this syndrome are common.

Hyperparathyroidism

The full developed syndrome is rare. Rarefication, deformity and spontaneous fracture of the bone, nausea, vomiting and polyuria. A complication is deposit of calcium in the kidney, and in cases of renal calculi an elevated serum calcium should be looked for. The treatment is removal of the parathyroid.

Diabetes Mellitus

This condition should be looked for in all cases of pruritus, vulval or scrotal excoriation, boils, carbuncles, cataracts, trophic ulcers, gangrene and neuritis.

Thyroid Disease

(A) Myxoedema in its completely developed form with loss of scalp hair, loss of outer part of eyebrows, thickened skin, loss of memory, weakness and susceptibility to cold is comparatively rare, but minor degrees are extremely common in middle aged women and should be carefully looked for since the condition responds so strikingly to thyroid treatment. (B) Hyperthyroidism. Exophthalmic or Graves disease and toxicadenoma are the two forms recognized. The writer feels that exophthalmic goitre unless particularly severe should be treated medically, before resorting to surgery. Luminal and lugols solution being used. If progress is unsatisfactory surgery should be resorted to. The author feels that in the younger patients medical treatment should be resorted to in every case in the early stages. In toxicadenoma surgery should be resorted to at once.

The Climacteric

The use of Oestrone for vasomotor symptoms and mammary discomfort and in later life for kraurosis vulva and senile vaginitis is advocated. Ten thousand units daily increasing to fifty thousand units twice weekly if necessary is advocated by the author.

Other Indications for Endocrine Therapy

In undescended testes the author is in favor of avoiding surgery until puberty. Five hundred units of antuitrin S, twice weekly, being used. In vulvo vaginitis in children Oestrin ten thousand units daily by mouth should be given a trial. In the menorrhagia of puberty and impotency endocrine treatment should be given a trial. In threatened abortion progesterone two rabbit units twice weekly should be tried, but should not be continued beyond the eighth month.

F. J. MACLEOD.

Department of the Public Health

PROVINCE OF NOVA SCOTIA

Office—Metropole Building, Hollis Street, Halifax, N. S.

MINISTER OF HEALTH HON. F. R. DAVIS, M.D., F.A.C.S., Halifax.

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 Divisional Medical Health Officer . . . DR. C. J. W. BECKWITH, D. P. H., Sydney.
 Divisional Medical Health Officer . . . DR. J. J. MACRITCHIE, Halifax.
 Director of Public Health Laboratory . . DR. D. J. MACKENZIE, Halifax.
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 Lebbetter, T. A., Yarmouth (M.H.O. for Wedgeport).
 LeBlanc, J. E., West Pubnico, (Argyle Mcpy).

Those physicians wishing to make use of the free diagnostic services offered by the Public Health Laboratory, will please address material to Dr. D. J. MacKenzie, Public Health Laboratory, Pathological Institute, Morris Street, Halifax. This free service has reference to the examination of such specimens as will assist in the diagnosis and control of communicable diseases: including Kahn test, Widal test, blood culture, cerebro spinal fluid, gonococci and sputa smears, bacteriological examination of pleural fluid, urine and faeces for tubercle or typhoid, water and milk analysis.

In connection with Cancer Control, tumor tissues are examined free. These should be addressed to Dr. R. P. Smith, Pathological Institute, Morris Street, Halifax.

All orders for Vaccines and sera are to be sent to the Department of the Public Health, Metropole Building, Halifax.

Report on Tissues sectioned and examined at the Provincial Pathological Laboratory, from February 1st., to March 1st., 1938.

During the month, 201 tissues were sectioned and examined, which with 53 tissues from 10 autopsies, makes a total of 254 tissues for the month.

Tumours, simple.....	18
Tumours, malignant.....	25
Tumours, suspicious of malignancy.....	3
Other conditions.....	155
Tissues from 10 autopsies.....	53

Communicable Diseases Reported by the Medical Health Officers for the month of February, 1938.

County	Cerebro Spinal Meningitis	Chickenpox	Diphtheria	Influenza	Measles	Mumps	Paratyphoid	Pneumonia	Scarlet Fever	Typhoid Fever	Tbc. Pulmonary	V. D. G.	V. D. S.	Erysipelas	Epidemic Jaundice	German Measles	Jaundice	Goitre	TOTAL
Annapolis.....	2									1		1	1						5
Antigonish.....									3								4		7
Cape Breton....			1		1			2	31		1	2	3		6				47
Colchester.....		1		40	6	18		11				2						1	79
Cumberland....		3			1														4
Digby.....																			
Guysboro.....				6				3											9
Halifax City....	7	7			8	9			3	1				1					36
Halifax.....																			
Hants.....				6	14	10		10				1	2						43
Inverness.....																			
Kings.....	1	2		8	56	1						2	1						71
Lunenburg.....								2			1								3
Pictou.....				6		60	1	3		1	2	2	1						76
Queens.....		3			70				6		1								80
Richmond.....																			
Shelburne.....																			
Victoria.....																			
Yarmouth.....																			
TOTAL.....	1	18	8	66	156	98	1	31	43	3	5	10	8	1	6	..	4	1	460

Positive cases Tbc. reported by D.M.H.O.'s. 49.

RETURNS VITAL STATISTICS FOR JANUARY, 1938

County	Births		Marriages	Deaths		Stillbirth ^s
	M	F		M	F	
Annapolis.....	14	14	10	11	7	0
Antigonish.....	6	12	9	7	8	0
Cape Breton....	83	69	78	40	27	2
Colchester.....	24	13	18	11	11	1
Cumberland....	27	33	35	31	28	3
Digby.....	21	17	12	11	11	1
Guysboro.....	20	14	6	10	12	1
Halifax.....	97	97	56	74	46	3
Hants.....	18	15	11	22	18	0
Inverness.....	13	14	11	12	14	1
Kings.....	20	21	15	9	4	0
Lunenburg.....	24	19	18	21	13	0
Pictou.....	19	18	17	28	19	1
Queens.....	9	3	5	3	2	0
Richmond.....	3	2	3	3	4	0
Shelburne.....	5	5	7	10	12	0
Victoria.....	8	6	2	0	0	0
Yarmouth.....	14	15	9	12	11	1
	425	387	322	315	247	14

Have You Made Out Your Income Tax?

RETURNS BY MEMBERS OF THE MEDICAL PROFESSION.

As a matter of guidance to the medical profession and to bring about a greater uniformity in the data to be furnished to the Income Tax Division of the Department of National Revenue in the Annual Income Tax Returns to be filed, the following matters are set out:

INCOME

1. There should be maintained by the Doctor an accurate record of income received, both as fees from his profession and by way of investment income. The record should be clear and capable of being readily checked against the return filed. It may be maintained on cards or in books kept for the purpose.

EXPENSES

2. Under the heading of expenses the following accounts should be maintained and records kept available for checking purposes in support of charges made:

- (a) Medical, surgical and like supplies;
- (b) Office help, nurse, maid and bookkeeper; laundry and malpractice insurance premiums. (It is to be noted that the Income War Tax Act does not allow as a deduction a salary paid by a husband to a wife or vice versa. Such amount, if paid, is to be added back to the income).
- (c) Telephone expenses;
- (d) Assistant's fees: The names and addresses of the assistants to whom fees are paid should be furnished. This information is to be given this year on or before the 31st March, but on or before the last day of February in each subsequent year on Income Tax Form known as Form T-4, obtainable from the Inspector of Income Tax. (Do not confuse with the individual return of income, Form T. 1, to be filed on or before 30th April in each year);
- (e) Rentals paid: The name and address of the owner (preferably) or agent of the rented premises should be furnished. (See j);
- (f) Postage and stationery;
- (g) Depreciation on medical equipment: The following rates will be allowed provided the total depreciation already charged off has not already extinguished the asset value:—

Instruments—Instruments costing \$50.00 or under may be taken as an expense and charged off in the year of purchase;

Instruments costing over \$50.00 are not to be charged off as an expense in the year of purchase, but are to be capitalized and charged off rateably over the estimated life of the instrument at depreciation rates of 15% to 25%, as may be determined between the practitioner and the Division according to the character of the instrument, but whatever rate is determined upon will be consistently adhered to;

The residual value of instruments not heretofore fully depreciated will be depreciated along with instruments costing over \$50.00 purchased subsequently;

Office furniture and fixtures—10% per annum;

Library—The residual value of library not heretofore fully depreciated will continue to be depreciated at 10% per annum for the years 1932, 1933 and 1934 as well as charging off the actual cost of books purchased in those years. After 1934, only the cost of new books will be allowed as a charge.

- (h) Depreciation on motor cars on cost; 20%, 1st year; 20%, 2nd year; 20%, 3rd year; 20%, 4th year; 20%, 5th year. The allowance is restricted to the car used in professional practice and does not apply to cars used for personal use.
- (i) Automobile expense; (one car): This account will include cost of license, oil, gasoline, grease, insurance, washing, garage charges and repairs;
(Alternative to (h) and (i)—In lieu of all the foregoing expenses, including depreciation, there may be allowed a charge of 8c. a mile for mileage covered in the performance of professional duties).

If Chauffeur is employed for business reasons, so that in the result he is substantially used for business purposes (although incidentally used for personal or family use), the expense will be allowed.

- (j) Proportional expenses of doctors practising from their residence—
 - (a) owned by the doctor;
 - (b) rented by the doctor;
 - (a) Where a doctor practises from a house which he owns and as well resides in, a proportionate allowance of house expenses will be given for the study, laboratory, office and waiting room space, on the basis that this space bears to the total space of the residence. The charges cover taxes, light, heat, insurance repairs, depreciation and interest on mortgage (Name and address of mortgagee to be stated);
 - (b) Rented premises—The rent only will be apportioned inasmuch as the owner of the premises takes care of all other expenses.

The above allowances will not exceed one-third of the total house expenses or rental unless it can be shown that a greater allowance should be made for professional purposes.

(k) Sundry expenses (not otherwise classified)—

The expenses charged to this account should be capable of analysis and supported by records.

Claims for donations paid to charitable organizations will be allowed up to 10% of the net income upon submission of receipts to the Inspector of Income Tax. (This is provided for in the Act).

The annual dues paid to governing bodies under which authority to practise is issued and membership association fees not exceeding \$100.00, to be recorded on the return, will be admitted as a charge.

The cost of attending post-graduate courses or medical conventions will not be allowed.

(l) Carrying charges;

The charges for interest paid on money borrowed against securities pledged as collateral security may only be charged against the income from investments and not against professional income.

(m) Business tax will be allowed as an expense, but Dominion provincial or municipal income tax will not be allowed.

Professional Men Under Salary Contract.

- (3) The salary of professional men will be taxed without any deduction therefrom except as hereunder provided unless the individual is under contract which requires of him, in order to maintain his contractual position to operate a motor car of his own, in which case if the principal does not pay the upkeep, running expenses and depreciation, the individual will be allowed to reduce the salary by such expenses as the use of the car in the earning of his income may cost, on the same basis as above provided for, i.e. expenses and depreciation or alternatively 10c. a mile for mileage covered in the performance of professional duties.

The annual dues paid to governing bodies under which authority to practise is issued, and membership association fees, not exceeding \$100.00 to be recorded on the return, will be admitted.

As Others See Us.

Physicians have played a rather sinister role in inventions for the extermination of human life. The modern machine gun had its origin in the invention of Dr. Richard Jordan Gatling. The Gatling gun was the first of the great modern engines of wholesale destruction. Dr. Joseph Guillotin who was a member of the French constituent assembly brought forward that all capital punishment should be by decapitation and by a specially devised machine. He wanted death to be swift and painless. In the United States, the electric chair was invented by a New York physician whose aims were similar to those of Dr. Guillotin. He wanted death to be rapid and free from pain.

NOVARSENOBENZOL BILLON

Acknowledged throughout the world as standard arsenical spirochaeticide.

Its great value was clearly demonstrated during the Great War where its use among the Allied Armies checked the menace of an epidemic of Syphilis among the soldiers. Many Canadian practitioners can trace back their unfaltered attachment to **Novarsenobenzol Billon** to these days.

Since then, **Novarsenobenzol Billon** has consistently retained the preference of Canadian physicians and specialists; it is now employed in a large number of hospitals and Governmental controlled V. D. Clinics.

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Clinical investigations have shown that a higher potency of the oestrogenic hormone, Emmenin, would be advantageous. New developments in the manufacturing technique have now made possible the production of Emmenin with a potency of 120 day-oral units (Collip) per teaspoonful or tablet and, of particular importance from the patient's standpoint, with greatly improved palatability. This increase in potency (from 60 to 120 units per teaspoonful of Emmenin Liquid or per tablet) will not affect the cost to the patient.

EMMENIN *for menstrual disturbances*

The orally-active oestrogenic placental hormone, prepared and biologically standardized after the technique of Dr. J. B. Collip and supplied with the approval of the Department of Biochemistry, McGill University.

Emmenin Liquid — in original sealed bottles of 4 fluid ounces.
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Biological and Pharmaceutical Chemists

Personal Interest Notes

Dr. J. W. T. Patton, of Truro, has returned from a delightful two week's vacation during which time he visited Pinehurst, North Carolina, and took part in the annual senior golf tournament open to players from Canada and the United States. Dr. Patton was runner up in his division in this tournament for which he received a sterling silver plate.

Dr. M. R. Elliott, of Wolfville, has retired from membership in the local school board after twelve years of faithful service.

Dr. and Mrs. M. D. Morrison, of Halifax, left the end of February for a five week's visit to Barbados.

Dr. Bernard Francis, of Sydney Mines, has been appointed town health officer to replace Dr. Hugh Martin.

Dr. T. M. Sieniewicz, of Halifax, addressed the Home and School Association of Sir Charles Tupper School on March 4th, at the school. His subject was "Allergic Manifestations" dealing with the discovery that some common ailments are caused by super sensitiveness to certain substances not harmful to the majority of people.

Flight Lieutenant F. L. Whitehead, M.D., was recently transferred to Egypt from Iraq where he had been stationed for the past year. Flight Lieutenant Whitehead has been attached to the Royal Air Force Medical Division since graduating from Dalhousie Medical School in 1935.

Dr. L. M. Morton, of Yarmouth, has recently returned from Toronto and New York where he was doing post-graduate work.

Dr. and Mrs. J. J. Carroll, of Antigonish, spent a pleasant vacation in New York in February.

Dr. E. B. Hall, of Bridgewater, has been taking a post-graduate course in New York.

Dr. H. R. McKean, of Millertown, Newfoundland, is at present spending several weeks vacation in Boston and New York.

Dr. Donald Mainland, Professor of Anatomy at Dalhousie University, is to be elected a Fellow of the Royal Society of Edinburgh, according to a recent issue of the "Scotsman." The honour has been conferred in recognition of Dr. Mainland's researches in medical science.

Dr. and Mrs. F. F. Eaton, of Truro, were awakened from their slumbers the night of March 9th by the barking of their faithful Irish setter pet, and

The New Synthetic Antispasmodic

TRASENTIN "CIBA"

(Diphenylacetyldiethylaminoethanolester-hydrochloride)

Trasentin exhibits an antispasmodic action similar to that of atropine, but without the unpleasant side-effects of the latter drug on the heart (acceleration of the pulse, palpitation, etc.), on the pupil (mydriasis), on the accommodation (visual disturbances) and on the salivary glands (dryness in the throat, thirst and even dysphagia). It is not a simple substitute for atropine, but possesses the advantage of acting in a marked degree also on smooth muscle tissue, like papaverine. Clinical investigations have shown that Trasentin is well tolerated.

**SUPPRESSES SPASMS OF THE GASTRO-INTESTINAL
TRACT, GENITO-URINARY SYSTEM AND OTHER
SMOOTH MUSCLE ORGANS**

TABLETS—in bottles of

20 and 100

AMPOULES—boxes of

5 and 20

1 tablet or 1 ampoule contains 0.075 gm.
of the active substance.



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made a hasty retreat from their smoke filled home in the nick of time, when flames, breaking out in the basement, causing damage estimated at \$2,000.00 burned through the first floor and walls of the dwelling. For almost two hours, firemen hampered by clouds of smoke, fought the stubborn blaze that became confined to the walls after eating through the floor and into the partitions. Mrs. Eaton was first awakened by the barking of the dog and after guiding her husband to the door of their home ran across the snow covered ground scantily attired to the home of Robert Hamilton nearby to spread the alarm. Telephone and electrical connections were disrupted by the fire. The firemen were summoned by telephone and arrived in time to lend clothes to the scantily attired residents so that they could go to the home of Mr. and Mrs. Hamilton where medical aid was administered. The origin of the fire is said to have been around the electrically operated furnace blower. The flames quickly spread and soon the entire ceiling of the cellar was in flames. Three lines of hose were run off by the firemen before the smouldering wire in the walls could be extinguished.

Dr. G. A. MacIntosh, Superintendent of the Victoria General Hospital, and Mrs. MacIntosh, left the end of February for Boston en route to Florida where they will spend some weeks. During his absence, Dr. H. L. Scammell, who has been with the Workmen's Compensation Board, is in charge at the Hospital.

On the evening of March 3rd, the Masonic Lodge of Clark's Harbour, held a farewell party in their lodge rooms for Dr. and Mrs. G. W. Brown. Dr. Brown is giving up his practice at Clark's Harbour, and will be succeeded by Dr. Corbett of Melrose, Massachusetts.

About fifty Masons and their wives gathered to do honour to them. Dr. Brown has served the people of Cape Sable Island for over forty years and will be greatly missed in that community. Mrs. Brown, who has always assisted in everything for the good of the place, will also be missed.

Dr. Brown is a Past Master of Concord Lodge, A. F. & A. M., and he was presented with a travelling bag by the Lodge, while Mrs. Brown received chocolates.

They will travel in Canada and the United States and on their return will reside in Shelburne, their former home.

Choosing "Psychotherapy in General Practice", as his subject, Doctor A. B. Campbell, Bear River, gave a most interesting and practical paper before the Halifax Branch of the Medical Society of Nova Scotia at its regular meeting on March ninth. Doctor Campbell drew his subject matter from his own experience in general practice, and presented it in a highly entertaining manner. In his paper, he dwelt on the practical application of Psychotherapy, stressing points that are seldom, if ever, to be found in text books on Psychiatry. Doctors K. A. MacKenzie, Murray MacKay, H. B. Atlee and G. H. Murphy spoke briefly at its completion, and were most heartily in accord with Doctor Campbell's ideas as set forth in his paper.

Under the direction of Doctor S. H. Keshen, four members of the Halifax Police Force gave a demonstration in First Aid, before the Halifax Branch of the Medical Society of Nova Scotia, on March ninth. These men, Con-

It Can Happen Here



Example of severe rickets in a sunny climate

Courtesy of E. H. Christopherson, M.D., San Diego and of "California and Western Medicine."

LEST WE FORGET—we who are of the vitamin D era—severe rickets is not yet eradicated, and moderate and mild rickets are still prevalent. Here is a white child, supposedly well fed, if judged by weight alone, a farm child apparently living out of doors a good deal. This boy was reared in a state having a latitude between 37° and 42°, where the average amount of fall and winter sunshine is equal to that in the major portion of the United States. And yet such stigmata of rickets as genu varum and the quadratic head are plain evidence that rickets does occur under these conditions.

How much more likely, then, that rickets will develop among city-bred children who live under a smoke-pall for a large part of each year. True, vitamin D is more or less routinely prescribed nowadays for infants. But is the antiricketic routinely administered in the home? Does the child refuse it? Is it given in some unstandardized form, purchased from a false sense of economy because the physician did not specify the kind?

A uniformly potent source of vitamin D such as Oleum Percomorphum, administered regularly in proper dosage, can do more than protect against the gross visible deformities of rickets. It may prevent hidden but nonetheless serious malformations of the chest and the pelvis and will aid in promoting good dentition. Because the dosage is measured in drops, Oleum Percomorphum is well taken and well tolerated by infants and growing children. Rigid bioassays assure a uniform potency—100 times the vitamins A and D content of cod liver oil*. Oleum Percomorphum, moreover, is a natural product in which the vitamins are in the same ratio as in cod liver oil*.

*U. S. P. Minimum Standard.

Oleum Percomorphum offers not less than 60,000 vitamin A units and 8,500 vitamin D units (International) per gram. Supplied in 10 and 50 c.c. brown bottles, also in 10-drop soluble gelatin capsules, each offering not less than 13,300 vitamin A units and 1,850 vitamin D units, in boxes of 25 and 100.

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stables Hall, McIsaac, Zinck and Clary are the winners of the Shield for the Championship of the Dominion in the Saint John's Ambulance First Aid Competition. They demonstrated bandaging, splints, pressure points, artificial respiration and carrying of the injured; and performed with an efficiency which evoked hearty applause from the Society. Doctor R. P. Smith, the President, extended the thanks of the Society to Chief-of-Police Conrod, and Colonel E. W. Mingo, as well as to Doctor Keshen and the members of the prize winning squad.

OBITUARY

Prominent New Brunswick Physician Passes Away.

Dr. John C. Meahan, aged seventy-nine, died at his home in Bathurst on March 11th. A Coroner for Gloucester County for several years, he was one of the oldest medical practitioners in New Brunswick. Surviving are five sons: Harry, Bathurst, N. B.; John M., Newcastle, N. B.; Dr. Thomas, New Aberdeen, N. S.; William, Oba, Ontario, and Bernard, Sudbury, Ontario; two daughters, Mrs. Thomas Holly, Montreal, and Mrs. John Bradley, Bathurst, and one sister, Miss Sarah Frances Meahan, Stoneham, Mass.

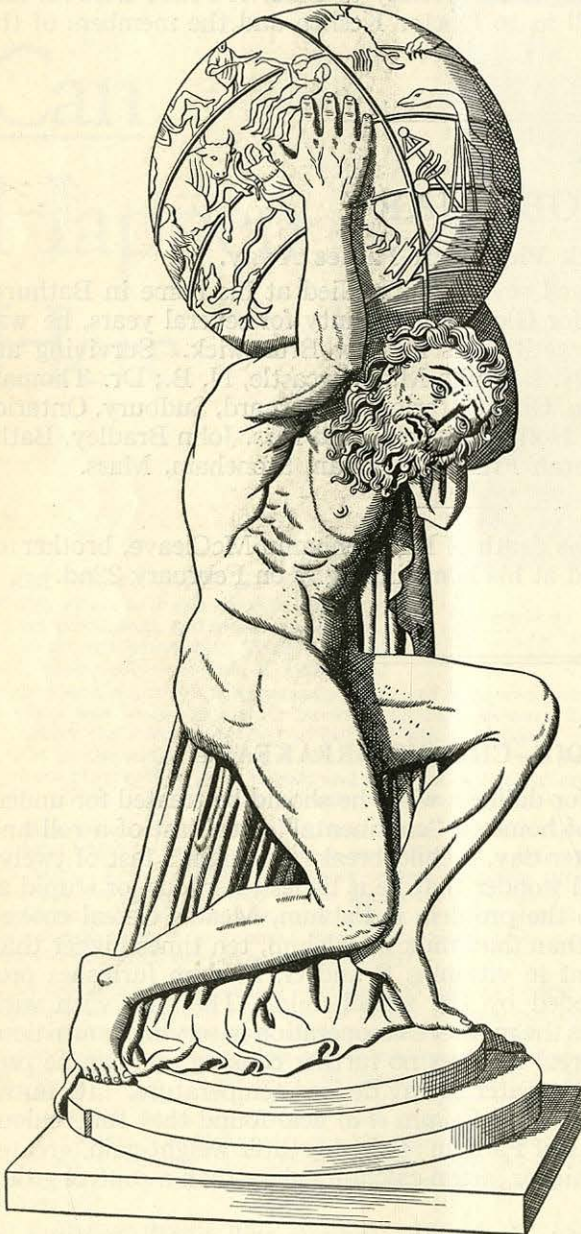
We regret to announce the death of Mr. Benjamin McCleave, brother of Dr. J. R. McCleave, who died at his home in Digby on February 22nd.

THE SCHOOL-CHILD'S BREAKFAST

Many a child is scolded for dullness when he should be treated for under-nourishment. In hundreds of homes a "continental" breakfast of a roll and coffee is the rule. If, day after day, a child breaks the night's fast of twelve hours on this scant fare, small wonder that he is listless, nervous, or stupid at school. A happy solution to the problem is Pablum, Mead's Cereal cooked and dried. Six times richer than fluid milk in calcium, ten times higher than spinach in iron, and abundant in vitamins B and G, Pablum furnishes protective factors especially needed by the school-child. The ease with which Pablum can be prepared enlists the mother's co-operation in serving a nutritious breakfast. This palatable cereal requires no further cooking and can be prepared simply by adding milk or water of any desired temperature. Its nutritional value is attested in studies by Crimm *et al* who found that tuberculous children receiving supplements of Pablum showed greater weight-gain, greater increase in hemo-globin, and higher serum-calcium values than a control group fed farina.

Mead Johnson & Company, Evansville, Indiana, will supply reprints on request of physicians.

One of a series of advertisements prepared and published by PARKE, DAVIS & CO. in behalf of the medical profession. This "See Your Doctor" campaign is running in *Macleans* and other leading magazines.



SELF-PORTRAIT OF MANY BUSINESS MEN

MANY a business man pictures himself as a sort of modern Atlas—supporting the fate of the world on his shoulders.

He sincerely regards his work as indispensable to the success of the business, and recoils from anything that he feels might take him away from his job.

That's why it usually is so difficult to get such a man to pay proper attention to his health, even though he is troubled by persistent signs and warnings that something is wrong.

For at any suggestion that he heed these warnings—that he see his doctor—he says: "Yes, yes, I suppose you're right. But what if the doctor should order me to stop work for awhile? Who'd take care of my job? What would happen to the business?"

And the irony of it is that by his attitude he is inviting the very thing he fears! For one of the surest ways of encouraging a *serious* sickness is to neglect a seemingly *small* one. Heart and other organic diseases, stomach ulcers, and nervous disorders—diseases to which men in the so-called "prime of life" are particularly susceptible—thrive on neglect.

When you see your doctor he may, to be sure, prescribe a short rest. But isn't that better than a *forced long rest* later? He might say: "Take things a little easy. Leave the office an hour earlier at night." But isn't that better than driving on relentlessly until you're *carried out* of the office?

Let us hope, of course, that your disturbance will turn out to be a minor one—and that its treatment will be simple, its correction rapid. But whatever is wrong, you'll be better off if you start correcting it before it becomes really serious. The most sensible thing you can do, therefore, is to see your doctor *now*.

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SEE YOUR DOCTOR