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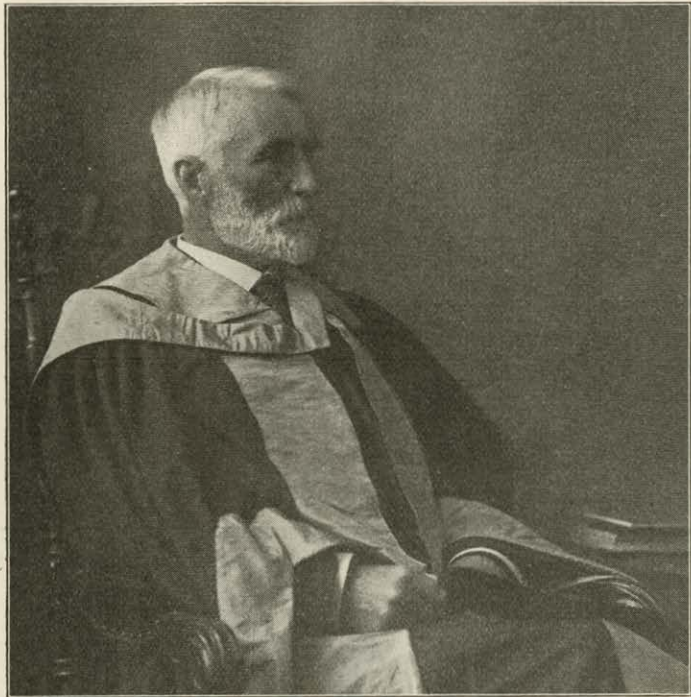
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JOHN STEWART

C.B.E., M.B., C.M., EDIN., LL.D., MCGILL, EDIN., DAL. F.R.C.S., EDIN.

Professor of Surgery Dalhousie Medical College 1912-1932;
Dean of the Faculty of Medicine 1919-1932

1848-1933

IN MEMORIAM

**JOHN STEWART, C.B.E., M.B., C.M., Edin., LL.D., McGill,
Edin., Dal., F.R.C.S., Edin.**

IN the passing of Dr. Stewart Nova Scotia loses an illustrious son and the medical profession of Canada a widely known and much beloved member. After a long period of ill health he passed away at his home, 28 South Street, Halifax, on December 26th, 1933, at the advanced age of eighty-five.

Dr. Stewart, son of a Presbyterian clergyman, Rev. Murdoch Stewart, was born at St. George's Channel, Cape Breton, on July 3rd, 1848. He received his education at home, at the country school and at the Model School and Provincial Normal School, Truro. After a year of teaching in Sydney he left for Scotland where for a period of three years he was engaged in farming near Blairgowrie. He attended one year in Arts at Edinburgh University, 1871-2. Returning to Nova Scotia he began the study of medicine in the newly organized Medical School at Halifax, later completing his course in Edinburgh. He was graduated from Edinburgh University in 1877 with honors. It was during this period that he became associated with Lord Lister. In 1875 he was Lister's dresser, in 1876-77 his clinical clerk. When Lord Lister removed to London to occupy the chair of Surgery at King's College Hospital he brought four of his students, Sir Watson Cheyne and Dr. Stewart as house surgeons, Mr. W. H. Dobie and Mr. James Altham as dressers. Dr. W. H. Dobie now living in Chester, England, is the only surviving member of the group. It is well known that Lord Lister gave Dr. Stewart much encouragement to remain in London but love of his native land urged him to return to Canada. In 1879 he settled in Pictou where he engaged in general practice for fifteen years. Coming fresh from the clinic of his famous chief he became a pioneer in introducing Listerian methods in this country. At a time when there were no nurses and no hospitals Dr. Stewart carried on his work in a manner which is now of historical interest. The operating room was sometimes a kitchen quickly converted into a workshop by the doctor himself. Frequently the only light was a kerosene lamp. Here under conditions far removed from present-day facilities results were obtained which compare favorably with those of to-day. Dr. Stewart's ability was soon recognized by his colleagues and his services were sought far and wide. While in Pictou he took an active interest in athletics, especially football and lacrosse. In 1894 he removed to Halifax where for the remainder of his life he practised as an operating-consultant surgeon and exercised a profound and beneficial influence on the practice of his profession. He was President of the Provincial Medical Board 1906-1916. President of the Canadian Medical Association in 1905, twice President of the Medical Society of Nova Scotia. For many years he was a member of the Dominion Medical Council and its President in 1925. He was Professor of Surgery at Dalhousie for many years, Dean of the Medical Faculty from 1919 to 1932 and a valued member of the Senate. The Lister Oration was brought into effect largely through his efforts and in 1924 he was chosen by his colleagues as

the first orator, to be succeeded by such distinguished men as Sir Charles Sherrington 1927, Lord Moynihan 1930 and Dr. Robert Muir in 1933. Other honors conferred on Dr. Stewart were LL.D. McGill, 1910; Edin., 1913; Dal., 1919. During the Lister celebration in Edinburgh in 1927 Edinburgh honored him again by conferring the honorary degree of F.R.C.S. Edin.

Of special interest in the career of Dr. Stewart is his military record. In early life he was a Captain in the 3rd Richmond Regiment and later he was a member of the Pictou County Artillery. He was no novice in military matters when at the age of sixty-seven he enlisted for overseas service taking command of No. 7 Stationary Hospital. This unit left Canada in 1916, was stationed for six months at Shorncliffe, England, and later functioned at Harfleur, Arques and Etapes. At all times he proved his efficiency as a Commanding Officer. It was always a matter of pride to his friends to note the high esteem in which he was held by all ranks. Many distinguished consultants visited the hospital from time to time and he was able to renew acquaintance with many old friends. It was not unusual to hear him addressed by his old college friends as "John". Dr. Stewart never looked for personal honor. On one occasion he was recalled to England to take a responsible consultant post but he raised such objections that he was permitted to return to his unit in France. He remained in France until March, 1918, when he was appointed consulting surgeon for a large British division. His overseas service reached the climax when in 1919 he was decorated by His Majesty the King, receiving the C. B. E. Among Dr. Stewart's most cherished memories was the visit of the King and the Prince of Wales to his Hospital in 1917 on his sixty-ninth birthday. Of his private life it would be difficult to do anything approaching a proper appreciation of the man. It can be tersely expressed by a remark which was frequently heard—"there is only one John Stewart." He took a deep interest in religion and while a staunch Presbyterian he was broad in his outlook and had his admiring friends in all sects and denominations. He was for years President of the local branch of the British and Foreign Bible Society and was for some years a Life Governor of the main organization. He had many hobbies, and was an ardent lover of nature especially botany and natural history. He had a good knowledge of the Latin and Greek classics, and kept his interest in them to the end. Perhaps his pet hobby was photography and his camera was a constant companion. Walking was a favourite method of recreation and his story of his walk from London to Edinburgh was a story worth listening to. As a correspondent he had few equals. He kept up a correspondence with his friends until the last. On his first trip to England in 1868 he sailed in a sailing ship commanded by Captain Waters of Pictou. This veteran of the seas died in 1918 and for fifty years he never failed to receive a card from Dr. Stewart on the anniversary of that trip. Dr. Stewart travelled a great deal. Twenty-two times he crossed the Atlantic. On several occasions he visited Germany and Switzerland and saw a good deal of their hospital practice. He was a loyal attendant at medical societies and contributed many interesting papers. From 1919 until his death he was consultant surgeon to Camp Hill Military Hospital. Dr. Stewart was unmarried. He is survived by one brother and five sisters out of a family of ten. After a service in St. David's Church his remains were conveyed to the station on a gun carriage preceded by members of his military unit and followed by numerous friends in the city. He was buried in Pictou beside his parents.

Manganese and Thyroid in the Treatment of Pneumonia

By T. A. LEBBETTER, M.D., C.M.

Yarmouth, N. S.

IT was Osler who first called Pneumonia "the Captain of the men of death," and so fearful has been the mortality of this disease that we cannot afford to pass by any remedy which offers alleviation. Our helplessness in the treatment of Pneumonia in the past is all too apparent. Our death rate in Nova Scotia for 1931 was 84 per 100,000 population.

Since Dr. Herbert W. Nott of Birkenhead, England, first reported a series of cases of Pneumonia treated with Thyroid and Manganese in the B. M. J. of July, 1926, I have tried it whenever the occasion arose. The treatment proved so successful in our practice that we have continued it as a routine measure in all cases of Lobar and Broncho Pneumonia.

The method is quite simple and can be employed in the poorest home. A stock solution is prepared by dissolving two grains of chemically pure Potassium Permanganate in one and one half pints of distilled water. Fresh solutions should be prepared every twelve hours. The patient is first given a cleansing enema and one each day thereafter. The equipment required consists of a small rubber catheter, a glass funnel, lubricant and a suitable clamp. From four to eight ounces of the stock solution is introduced into the rectum every two to six hours, dependent upon the severity of the disease and the ability of the patient to retain it. The more severe the Pneumonic process the more frequent and larger the dose. Twenty minutes should be allowed to introduce three ounces. It must be given slowly—at body temperature and retained as long as possible. If given too rapidly, a rectal and colonic irritation is set up and the solution expelled with epigastric cramps. We noted no contra-indications to its use. One half grain of thryoid is given by mouth twice a day.

Striking clinical results were observed. As early as twelve hours following the first treatment an unproductive racking cough with small amounts of bloody sputum softened and the blood character disappeared. Restlessness, cyanosis and sleeplessness were relieved rapidly. The temperature curve showed a sharp reduction, likewise the pulse and the respiratory rate. The patient looks and really is comfortable. The toxicity fades into the background and the appetite speedily returns. From our experience, no Pneumonia should be considered fatal until this simple treatment is given a fair trial.

Cases in our series which had not reacted as promptly as others were investigated. We found the nurse had not been giving the solution correctly. It was given too fast ofttimes with a loaded rectum and, of course, not properly retained. No cathartics are needed and expectorants, etc. are seldom required. The change in the character of the cough and the disappearance of the anxious restlessness so frequently present were dramatic. The children with Broncho Pneumonia did poorly by comparison. We considered this due in a large measure to the difficulty encountered in retaining the solution.

It is always wise to give the first injection yourself and be sure the nurse fully understands what you are doing.

Simple and non-technical as the treatment is, still it has its inhibitions. The tablets or crystals of Manganese used should be pure. The ideal time for the injection is about one half hour after a bowel movement and retention is more satisfactory when the solution is given comfortably hot. The quantity of the solution and length of time between injections will vary according to individual needs and circumstances. The severity of the attack, day of disease, and capacity to retain must govern the procedure. Mucous casts of the bowels may be encountered but these should be warned against and discounted. This treatment is inexpensive, easily understood and easily adapted to either home or hospital cases.

If one remembers the lung signs—cyanosis, restlessness and lack of sleep the high fever and the rapid respirations and pulse rate, the rusty red sputum, the laboured cough present in Pneumonia—and then observes the change in the clinical picture—all in a rather brief period—he must necessarily believe that the lung pathology is suddenly undergoing a change of decided improvement.

I can find little in the literature to explain the pathology of this change. While results of its success are reported in the Medical Journals of America, Australia and the British Isles, there is, however, no satisfactory explanation given of the reason why Manganese and Thyroid affect the Pneumococcus.

There are three stages in the reduction of Potassium Permanganate corresponding with the separation of 1, 3 and 5 atoms of oxygen per two Molecules of salt. The products of decomposition are Potassium Manganate Manganese dioxide and Manganous Salt. Two gram Molecules of Potassium Permanganate contain the equivalent of eighty grams of available oxygen, which is rapidly given off in the presence of water. The residium Manganese dioxide is an antiseptic and a well known antidote for several poisons.

The Providence Hospital cases reported by Dr. Chester treated with Manganese and Thyroid, twenty-three in all, shows twenty-one recoveries and two deaths. Oerting in his series of fifty-four cases treated with Thyroid and Manganese reports the mortality rate as follows: Treated, 15.21%. Untreated, 45.45%.

Clinical Pneumonia is due to many different types of organisms and the Pneumococcus is not the only one causing clinical Pneumonia. Among the commonest ones are the Diplococcus, catarrhalis, streptococcus, meningococcus, tubercle bacillus and a host of others. Besides this—the same organism can produce a solid Lobar Pneumonia in one individual and a patchy Broncho Pneumonia in another. There does not seem to exist any known immunity to the disease and one attack only seems to sensitize the patient to subsequent attacks. It is a serious disease with an exceedingly high mortality rate. This rate is profoundly affected by age. While mildly fatal in childhood (except during infancy) after sixty it increases from 60 to 80%. Habits and history also influence greatly the mortality. Chronic alcoholism doubles the risk of a fatal issue and in patients with Diabetes, chronic cardiovascular diseases, Nephritis and obesity, the risk becomes extremely grave.

The Rockefeller Institute arranged the mortality rate for the various types as follows:

Types	I to II	30%.
Types	III	50%.
Types	IV	12%.

Perhaps Pneumonia has caused the "rise and fall of more therapeutic empires," than any other disease.

R. L. Cecil and N. Plummer have studied 1,000 cases of Type II pneumonia considered from the standpoint of a specific disease entity. Like type I pneumonia it runs a characteristic febrile course usually terminated in crisis; 23 per cent. of 4,310 cases of lobar pneumonia in adults were Type II infections. Only 9 out of 329 cases of pneumonia in children were Type II. Curves of the age distribution show a higher incidence of Type I up to the age of 30 and a slightly higher incidence of Type II beyond that age. Curves of the seasonal incidence are almost identical. The incidence of complications varies but slightly in the two types except as regards empyema, which occurs only about half as frequently in Type II and in Type I. Endocarditis as shown post mortem was twice as common in Type II as in Type I. In 202 Type II cases in which no serum was given 46.4 per cent. showed Type II pneumococci in the blood. This is considerably higher than the figure obtained for Type I (29.7) per cent., and explains why Type II infection is so much more serious. Type II pneumonia has a mortality rate of 48.8 per cent.—almost twice as high as that of Type I. The death-rate in septic cases was 87.5 per cent. The immune serum contains antibodies against the Type II organism and regularly protects mice from Type II infection.

Felton's Concentrated Serum is shown to be from six to twenty times as high as unrefined serum in its content of antibodies and protective substances. A definite clinical effect following the early administration of concentrated Type II serum is often demonstrable. The course of the disease is usually milder and the blood more frequently remains sterile. In a series of 252 cases of Type II pneumonia treated with Felton's serum the mortality rate was 40.5 per cent. as compared with a rate of 45.8 per cent. in 253 alternate controls. During the last year of investigation only early cases were included and 21 had the benefit of intensive serotherapy, with a death-rate of only 14.3 per cent. The authors conclude that Type II concentrated serum has definite though not striking clinical value.

It is obvious then, that even under the most favourable circumstances, with serological facilities at hand for determining the type and preparing the serum the mortality is alarmingly high.

Conclusion.

It is true that the use of this treatment is apparently empirical. In the past, however, many empirical successes have been followed years after by a rational explanation, e.g. Cod Liver Oil in Rickets, Quinine in Malaria, Arsenic in Syphilis, etc. We still are unable to explain the effect of the Salicylates in Rheumatism. In a recent article on the use of drugs by no less an authority than W. Langdon Brown, he ends his paper with this note. "In conclusion I will quote Timme's reminder that 'the abysmally ignorant South American savages who gave us Cinchona bark for Malaria did not even know the formula for Quinine'."

In our series of fifty-two cases treated by Thyroid and Manganese there were forty adults and twelve children. Three children and two adults died less than 10%.

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I wish to thank Drs. A. R. Campbell, and C. M. Morton, for the use of their case records which I have utilized in compiling this series.

RANKS WITH LEADER IN DOMINION.

Western Ontario 69.94, Halifax Institution 69.91 Head List.

Proof of the high standing which has been maintained in past years by the Medical School of Dalhousie University is contained in the results of the June examinations of the Medical Council of Canada, results of which have just reached Halifax.

These results, received by Dr. H. G. Grant, Dean of the Faculty of Medicine, reveal that Dalhousie graduates practically tied for first place among the Canadian Medical Schools. Western Ontario leads Dalhousie, by only a small fraction of a point, students from both medical schools attaining an average mark better than 69.

The Standing.

Here is the standing of the schools:

Western Ontario	69.94	Manitoba	68.06
Dalhousie	69.91	Queens	67.85
Alberta	68.59	Toronto	67.63
McGill	68.50	Laval	55.50
	Montreal		48.41

Since the candidates who take these examinations which will qualify them to practice in any province of the Dominion are representative of the whole of Canada, it is indeed encouraging to Nova Scotians at least to note the prominence attained by the students of Dalhousie.

Are Congratulated.

Dean Grant and his associates at the University may look with justifiable pride upon the record of Dalhousie Medical School, and the Faculty are being congratulated upon the high standard maintained by their pupils.

Medical graduates who take the Medical Council of Canada's examinations must qualify in five subjects—surgery, medicine, hygiene or public health, obstetrics and gynaecology, pathology and bacteriology.

Endometrioma as a Cause of Abdominal Pain

Or a Review of 275 Cases of Surgery of the Cystic Ovary, (Luteal or "Tarry" Type).

By A. R. CAMPBELL, M.C., M.D., F.R.C.S. (Ed. & C.).

Yarmouth, N. S.

ENDOMETRIOMA is a poor title for this surgical lesion, which though known and described many years ago under the designation "*Luteal Cyst*", has lost its identity in the confusion which is associated with the study of its many complications. One can search in vain to find anything like the attention paid to it in surgical and medical literature which seems indicated from its painful and disabling effects on the human female.

John A. Sampson of Albany, N. Y., who appears to be the world's principal exponent of this lesion, in his article in the *Am. J. of Obs. & Gyn.*, Oct. 1932, lists its titles as—"adenomyoma, adenomyosis, endometrioma, endometriosis, mullerianoma, mullerianosis, and endosalpingiosis." He omitted—"luteal cyst, tarry luteal cyst, chocolate cyst, blood cyst, peritoneal cyst, follicular haematoma, etc." In his papers and in those of others, the *varying* pathology of the subsidiary lesions is very fully discussed, so for the sake of brevity in the remainder of this article the microscopic pathology will be omitted and I am going to call the lesion a "luteal cyst", which will be at least as accurate as "endometrioma" and will include it as a subsidiary.

The *corpus luteum* in non pregnant women is a flat, thin walled yellow cyst, $\frac{1}{4}$ " in diameter, in the substance of the ovary. There are often several present in each ovary in various stages of absorption. The corpus luteum of pregnancy, is a yellow coloured globe about $\frac{1}{2}$ " in diameter, submerged in the substance of the ovary, and having a moderate number of blood vessels radiating over its surface. On section the yellow cortex surrounds a pink or reddish jelly.

At a meeting of the Royal Academy of Medicine in Ireland, as reported in the *B. M. J.*, Dec. 17, 1932, Falkiner demonstrated that bleeding occurs into the corpus luteum twice during the normal menstrual cycle, viz., (1) when the follicle ruptures, i.e. when the corpus is formed, and (2) in or about the time of the menstrual flow, this haemorrhage being generalized throughout the terminal capillaries of the luteal tissue, where they are bordering the central cavity of the corpus luteum. After this, its function as a gland of internal secretion ceases, and then it is absorbed under normal circumstances. (The above may explain why a luteal cyst may bleed acutely at a time remote from the menstrual period, as has happened in a number of my cases, i.e. at a time when a follicle has ruptured). In case of pregnancy, haemorrhage does not occur into the corpus the second time. This normal corpus luteum is necessary for and partly responsible for the large thin walled intra-uterine cyst of pregnancy.

The typical *Luteal cyst* or "tarry cyst" is a globe $\frac{1}{2}$ " to $\frac{3}{4}$ " in diameter, reddish in colour, bulging from or enlarging the ovary, its surface covered with

numerous radiating blood vessels, and at its center a bulging purple pimple, which may be, or usually is not, bleeding from perforation. On section it has a yellow cortex surrounding what appears to be a mass of brown clotted blood. It should be emphasized that this lesion, though not unlike the corpus luteum of pregnancy, is in the ovary of a woman who is *not* pregnant, and differs markedly from the non-pregnant corpus. From this typical form there may be the following and other variations: (a) several similar cysts in each ovary, (b) a thin walled cyst with colourless contents but a patch of luteal tissue at some part of its wall, (c) a cyst a foot in diameter covered with blisters or smaller cysts inside and out, and containing a gallon of chocolate coloured fluid, (d) to what appears to be a part of a typical carcinoma of the uterus, (e) to what appears to be a part of other forms of abdominal growth. It excites the growth of endometrial and endosalpingeal tissue in many abnormal sites, with resulting pain, haemorrhage, adhesions, cyst formation, etc.

My attention was first drawn to this lesion on my return from overseas in 1920, when I operated on 14 women who had had their appendices removed during the preceding few years for lower abdominal pain, with no other abdominal lesion present, and with no relief of their symptoms. Luckily, one of the first was a woman of 65, in whom, at her 3rd laparotomy no other lesion could be discovered than a dumb-bell shaped right ovary, the removal of which cured her pain. The ovary contained a luteal cyst $\frac{1}{2}$ " in diameter at each end, though she had ceased menstruating thirteen years before. In contrast to this, I have removed one from a child eleven years old and not yet menstruating, who was suffering from frequent convulsions, commencing with lower abdominal pain. She ceased having these symptoms after removal of a $\frac{1}{2}$ " cyst, apparently luteal, from her right ovary.

In the twelve years since 1920 I have dealt with 275 cases which in my opinion were luteal cysts. Of these my records show that 60 or 21.8% were bilateral, 115 or 41.7% were in the right ovary and 100 or 36.3% were in the left ovary. In nearly all, the pain and tenderness were referred to McBurney's point on the right side, and women who have not complained of such pain are very rarely found to have cystic ovaries even though operated on shortly before or during menstruation.

Symptomatology. In the typical average case, a young woman complains that since about the age of eighteen she has had frequent attacks of pain in the region of the appendix. On questioning she says that she nearly always has some pain or discomfort there, but that it usually gets worse three or four days before her menses. On palpation McBurney's point is the only tender place,—even though the cyst is in the left ovary, if it is possible to do a vaginal examination the ovaries are rarely found to be tender. A typical attack of acute appendicitis with much pain, three or four days before menstruation, or at any time, frequently reveals, on opening the abdomen, a cupful or more of blood in the pelvis, a bleeding luteal cyst and a normal appendix. The reaction caused by the setting free of a small amount of blood in the pelvis is surprising. An older woman may complain of dysparunia, although she has never had venereal disease. Examination p.v. shows the uterus to be immobile with a tender mass in Douglas' cul de sac. Operation reveals a mass of adhesions about the uterus, the uterine adnexae being firmly fixed to the back of the uterus and to the pelvic peritoneum, the tubes closed at both ends and moderately distended with clear fluid, and one or both ovaries containing luteal cysts.

The differential diagnosis between acute appendicitis and bleeding luteal cyst is almost impossible, except that in the latter there is likely to be more pain. As for chronic appendicitis, although on operation the appendix may show evidence of a former inflammation, it is well to look for the cause of *pain* in the ovaries. With chronic appendicitis one expects a history of perhaps, several acute attacks over a period of years with freedom from pain in the intervals. With luteal cyst one usually gets a history of pain or discomfort in the region of the appendix, more or less continuous, for a period of years, with frequent exacerbations three or four days before menstruation. Men do not have chronic pain with chronic appendicitis—nor do women.

These are the more common types of case. As to the rather infrequent and severer types, the symptoms etc. can perhaps be described more interestingly by citing cases:—

Case (1) Mrs. H. D., Nov. 25, 1924.

This woman, aged 42, on admission to the Clinic had a mass in the lower abdomen extending almost to the umbilicus, and complete obstruction of the bowels. Examination showed probable carcinoma of the uterus. On opening the abdomen the uterus was found to be 8" x 6" in size, and the small intestine and omentum were firmly adherent to its blister covered surface. After separating these, and during an effort to do a hysterectomy both tubes and both cystic ovaries were removed. But owing to the wholesale involvement of the rectum in the supposedly cancerous mass, the effort was abandoned, a colostomy was performed and the abdomen closed. She recovered and was discharged, with the information to her relatives, that she had only 2 or 3 months to live, and that I wished to see her in a month or so. It was 6 months before she walked into the office, and my surprise can be imagined on finding that she had gained 50 lbs. in weight, the colostomy had closed, and the carcinoma had disappeared. She is still living, and fat, and well. This is the type of rare case of endometrioma that one sees discussed in surgical literature. I wish to point out that the mass was not removed, but that the cystic ovaries were, and that she has had no recurrence in the 8 years since operation.

Case (2). L. B. also endometrioma.

On this case I have done three laparotomies during the past six years. On April 20th, 1926 I was called 90 miles away to operate on an acute abdomen. On arriving at the home, the patient, a girl of 13 was found to have a large mass in the lower left abdomen, and gave a history as follows:—that this was her 3rd menstrual period, that at each of her former two she had had pain necessitating morphine, and that this time, although flowing normally, she had been given 1½ gr. morphine during 24 hours and was still writhing in agony. Examination p. v. showed a normal cervix and a mass in the left side. Laparotomy revealed a mass of pelvic adhesions covering a left tube 9" long and 3" in diameter. The distal end of tube was adherent to the left ovary which was 3" in diameter, and like the tube, was full of chocolate fluid. After removing these the uterus was found to be three times its normal size, and on separating all remaining adhesions, I could find no right tube or ovary attached to it. She had a divided uterus, the right side had cervix, tube and ovary all normal, but the left had no vaginal opening. I began to remove the left half, but our supply of anaesthetic ran out and the abdomen had to be closed hurriedly.

On May 30th, 1926, she was sent to hospital with a recurrence of pain, and was opened at once through the same scar. In the scar was a tarry cyst 3" long by 1½" in diameter containing black fluid. This was dissected out. The lower abdomen was a mass of adhesions. After separating these, the left half of the uterus was removed, being now 6" x 3" in size. During this procedure the abdomen was well smeared with the tarry coloured contents of the uterus, the right part was still normal.

She was well until Nov. 10, 1931, when she again came to operation, this time for intestinal obstruction. There was a small adhesion of the omentum to the scar, a sheath of thick peritoneum about the descending colon into which the upper part of the descending colon had invaginated, and become obstructed, and a well developed Meckles' diverticulum at 18" above the ileo-caecal junction. But all other signs of her former endometrial condition had disappeared, and the pelvis was healthy.

Other cystic conditions accompanying luteal cyst.

(1) Where a luteal cyst is present, one may find on opening the abdomen clusters of grapelike, thin walled cysts attached either to a common origin on the guilty ovary, or to many sites on the tube, uterus, intestines, omentum and even on the diaphragm. (In the case of Mrs. H. G. where I assisted Dr. C. K. Fuller, 21-5-23, the entire abdominal contents and the diaphragm were thickly spotted with them. A year later they had disappeared). However, this condition of "peritoneal cysts" is sometimes due to the encystment of blood or other foreign matter by the peritoneum where no luteal cyst is present. Last year I operated on a woman, who, three or four months previously had shown all the clinical symptoms of ruptured ectopic pregnancy, but refused to enter hospital for operation. On consenting, she had a pint of old blood in the pelvis, which was walled off by a thick layer of peritoneum. There were no intestinal adhesions, but there were at least 20 pear shaped peritoneal cysts attached by slender pedicles to the intestines and omentum, with contents varying from colourless to dark reddish brown. She had no luteal cysts, but had a ruptured left tube, with the remains of a foetus still in it. The varying colour of the contents of these peritoneal cysts, as well as of luteal cysts, is probably due to the more or less proper absorption of the haemoglobin contents according to the normal physiological function of the limiting membranes, accompanied by a decrease in function of absorption of the fluid part. When the cause is removed the fluid will ultimately disappear.

(2) Blister like cysts are frequently found covering the surface of carcinoma-like growths, as in *Case 1*. They are also frequently found on close inspection scattered over the surface of the abdominal contents in ordinary cases of luteal cyst. In the largest luteal cyst that I have seen, both the outside and the interior of the cyst were thickly covered with blisters ¼" in diameter. Some of the interior blisters had filled to such an extent that they were pear shaped cysts.

(3) Hydatidiform mole is practically always accompanied by double cystic ovaries, and hydatidiform mole frequently precedes or accompanies chorion epithelioma.

King in his paper in the "Archives of Surgery", 1932, 24, 292, states that,—"where peritoneal cysts secondary to tarry or chocolate cyst of the ovary are found, a diagnosis of *endometriosis* is usually made." Why should the part be named for the whole? Perhaps students of the classics have run out of

terms which would describe this disease of the corpus luteum. Why not even call it "luteal disorder." of course, expressing the term in proper Latin or Greek phrasing.

Treatment in the ordinary case of luteal tarry cyst, endometrioma, endosalpingioma, or peritoneal cysts, simple excision of the cyst from the ovary, with suture of the resulting wound, and perhaps removal of any hopelessly sealed tube and the appendix is the only treatment that is necessary. This holds true even if the tube, the uterus and the peritoneum generally be thickly spotted with the so-called endometrial new growth.

Sampson and others have recommended complete hysterectomy as the *only* hope of cure. However, in spite of contrary opinions the more conservative procedure as stated above, is all that is necessary for the ordinary, and even for most of the extraordinary cases. This has been proven by me in many cases where the abdomen has had to be reopened in later years for such conditions as gall stones, etc. and the pelvis found normal. The pathological corpus luteum seems to be the exciting cause, and on its removal the complicating lesions disappear,—(just as the removal of the normal corpus luteum of pregnancy will cause the emptying of the gravid uterus). *Case 1* is an extreme example of this thesis. *Case 2* is an exception to it. Here although the involved ovary (and tube) were removed, the condition increased in severity until the sealed part of the uterus was excised, when it disappeared although the right half of the uterus and its adnexae were left in situ.

The technique of removal is simple. The ovarian pedicle is held between the fingers of the left hand, tightly enough to prevent bleeding. The point of the knife is lightly run around the cyst at the junction of cystic and ovarian tissues. An artery forceps separates one side of the cyst and the shelling out is completed, perhaps with a sponge. If the contents are spilled it will not affect the result. The cavity is obliterated by a continuous suture of oplan, run through the ovarian cortex and substance from side to side. Even in large cysts all healthy ovarian tissue should be saved if possible by peeling it off the surface and bringing it back to form by suturing as above.

Removal of a cyst is usually followed in two or three days by a menstrual flow of usual magnitude.

In cases which appear to be carcinoma of the uterus, if hysterectomy is not possible, both ovaries should be removed when cystic. Where cystic ovaries are accompanied by hydatidiform mole or chorion epithelioma, even a pan-hysterectomy at once performed is often not radicle enough to save life.

A Simple Technique for the Treatment of Sinusitis.

By CHAS. K. FULLER, M.D., F.R.C.S. (Ed. & Canada) Yarmouth, N. S.

It is not my intention in this short note to discuss in any way either the Anatomy or the Pathology of the Accessory Nasal Sinuses but merely to describe a method of treating Sinus infections, either Acute or Chronic, that is simple and efficacious even if slightly unpleasant. It can be used in all types of cases in any of the Sinuses and requires no special knowledge or skill.

Some years ago I had an Acute Empyema of the right Antrum which transillumination showed to be completely filled. Lying on my left side so as to bring the painful side uppermost, I closed my nostrils firmly between thumb and finger and with my mouth shut sucked in as hard as I could. The pull on the Antrum was immediately felt. Repeating this procedure several times, sucking as long as I could, I soon evacuated over a drachm of pus and the pain was relieved. In a few hours the pain returned and was relieved in the same way. This was repeated as often as I felt any discomfort. In a few days all symptoms disappeared and I was unable to get anything out of the Antrum on sucking or feel any discomfort in my cheek from trying to do so. I have had absolutely no symptoms since that time and transillumination shows both sides to be equally clear.

Since that time, some ten years ago, I have used this procedure in many, many cases with excellent results.

1. Have the patient spray both nostrils with a solution of equal parts of 1-1000 Adrenalin and a 10% aqueous solution of neosilvol.
2. Have the patient turn his head so that the infected or painful side is uppermost.
3. With his mouth shut close his nostrils firmly between his thumb and fingers.
4. Suck in as hard as he can but increase the suction gradually.
5. Clear the Nasal Passages by snuffing and expectorating what is thus drawn into the naso-pharynx.

The reason for spraying both nostrils is that if anything is sucked into empty sinuses it will be an antiseptic solution. The patient when he creates the vacuum by sucking in, can feel the pus oozing or being drawn into the Nasal Passages. Two or three of these hard sucks are sufficient at a time and he repeats the procedure whenever he feels the pain returning or increasing which it does at first every two or three hours but this soon lengthens out to much longer intervals.

This position and procedure can be applied to all the Sinuses, (Frontal, Ethmoidal and Antrum) except the Sphenoidal. When the Sphenoidal Sinus is involved the only modification of the procedure is the position of the head. The head should be tipped forward until the face is downward before the vacuum is created.

It is really surprising how easily the average patient catches on to the idea and how complete and efficient is his co-operation.

The use of vacuum suction to empty the Sinuses and if possible to get some antiseptic solution into them is not at all uncommon but this very simple method of securing the desired vacuum is not used, as far as I know, and I pass the idea along that others may try it along with the usual applications of cold and Foreign Protein injections (7 cc. of skimmed milk, sterilized by boiling seven minutes) every twenty-four hours which are so beneficial as long as there is any elevation of temperature.

Historical Section

EARLY MEDICAL PRACTICE IN QUEENS COUNTY

G. W. T. FARISH, M.D.

I HAD intended giving, as my donation to this number of the BULLETIN, an historical sketch of the Bond-Farish family in Medicine, and as this occurred for the most part in Yarmouth County it might be interesting, but perhaps more so to me than to any of you, and also as I had this published in the *Canadian Medical Journal* as late as three years ago it would seem rather superfluous to again inflict you with practically the same story. So as the Editor seems to wish something in the light of experience of by-gone days in Medicine and Surgery, I do not know that I could do any better than quote some of the experiences of my father who practised in Queens County—for nearly sixty years. As there was a superfluity of Dr. Farish's in Yarmouth when my Father was ready for practice, viz. my Grandfather, Dr. Henry Greggs Farish, and his two sons, Dr. G. J. Farish and Dr. James C. Farish, it was decided that my Father should go to Liverpool. I do not know whether there were any other practitioners in Queens County at that time except Dr. Forbes: at any rate in the memoirs written by my Father he does not mention any other except him. In a county as large as Queens, with the roads only cow paths and Indian trails, it meant a great deal of hard and arduous work to cover the territory which was necessary to attend to their duties. Here it was where my Father had it so strongly impressed on his mind that he must rely solely on himself, in decisions and actions when brought into contact with severe cases which demanded from him all that was in him. Many a time under such conditions his confrere may have been forty miles in another direction in the County, and it would be impossible for him to avail himself of the help of Dr. Forbes. The population at that time in Queens County numbered about 8,000, and so one can imagine that these two pioneers had their hands more than full to attend adequately to their patients.

Just to give you an example of the necessity of these men being self-reliant, I will give you an example from my Father's own pen.

"In my early practice I was called to amputate. The patient lived thirty-five miles from any doctor, away in the backwoods. The case was a rapidly growing sarcoma, of the forearm, in a woman pregnant, six months. The operation was imperative, I selected two men and an old female nurse." Of course my Father had to initiate the chloroform administration, and then hand it over to a tyro. "The operation was started, but at the first grating of the saw on the bone, the two men tumbled over in a faint, so the old nurse and I had to finish the work between us. The old nurse was evidently going to claim the victory of what is generally termed the weaker sex against the stronger, for she held out until all was over. As it was impossible to attend to the dressings required in the after treatment I had the patient removed

by easy stages to Liverpool where all went along successfully, not only as regards the success of the operation but at the full period the patient was successfully delivered without any mishaps. The malignancy never returned."

In my Father's earlier practice ether and chloroform had only lately been discovered, and were administered in a very cautious manner, fearful of fatal results, consequently in such of his own cases requiring an anaesthetic it was given with fear and trembling, and in prolonged operations was tabooed. In some instances, intoxication with good old Jamaica rum was substituted and with not such imperfect results after all was said and done.

In later years when he gave ether more freely, and became more confident, operations were done mostly with the help of the laity, both as assistant and anaesthetist. I can well remember as a young man my Father sending for Uncle Frank, his brother-in-law, to accompany him to an operation as his anaesthetist and I also remember how perfect an anaesthetist Uncle Frank was. In a great many cases when he was unable to procure his services he would have to administer the anaesthetic himself until the patient was unconscious, and then assign the office of administrator to his skilled lay assistant—while he attended to the operative part of the performance. He says in his memoirs—"I selected good strong nerved men to assist who had become reliable through experience."

I have heard my Father give his experience when I was younger, on the primitive treatment of wounds in his early days, before the advent of Lister. In speaking of such, he cites that carried on in the Continental Hospitals in cases of amputation of a limb instead of looking for healing by first intention, they felt that it was necessary to produce pus, and to that end the surgeons after an amputation for example, would stuff in between the flaps a material called "charpie" or shredded lint. Of course the result was pus formation, and if the pus was of a thick and creamy consistence it was called laudable pus. To quote—"I witnessed this treatment in going my rounds at the Hotel Dieu Hospital in Paris. A celebrated surgeon on examining some of his cases (an amputation) when he saw the pus oozing through the flaps smiled most complacently and with lifted hands exclaimed 'Voila! C'est pus laudable! C'est excellent. Bon! Bon!'"

When in London he had the privilege of observing on many occasions the great Liston operate, and at that time a great deal of stress was laid on the rapidity with which an operation was performed. Liston was particularly rapid in his technique and there followed a great deal of rivalry amongst the top notchers of that time as to who could operate the most rapidly, and whoever scored highest acquired a higher notch in the surgical world thereby.

It was in obstetrics in his early days, that in years after when he gained more experience, he wondered how it was possible for a teacher to inform his class on this subject as he was wont to do. To quote—"In Dr. Rambotham's voluminous book on obstetrics replete with the finest illustrations, and which was considered *the* text book when I attended his lectures in London, these are his words *litteratim* where he gives directions for using the forceps—if the pains are subsiding gradually, or have entirely disappeared, if the strength is failing, the spirits sinking, the countenance becoming anxious, if the pulse be 120 or 130 or 140, the tongue covered with a white slime, or tongue dry, brown or raspy, if there have been two or three rigors, if on pressing the abdomen there is great tenderness of the uterus, if there be a green discharge, or if there be preternatural soreness of the vulva, with heat and tumefaction of the vagina,

if the head has been locked for four hours and has made no progress for six hours, if the patient is vomiting a dark coffee-ground matter, if there be hurried breathing, delirium and coldness of the extremities, we should be acting injudiciously to allow the case to proceed without relief from the use of forceps."

As my Father commenting on the above after years of practice says—"He stood there in all the dignity of his venerable form and poured out these words with sledge hammer emphasis. Is it any wonder that we students were impressed and the thought over-powered us 'Who then can be saved?' In our after practice could we do less than hesitate to use, as we considered them, such weapons of destruction. But a few cases convinced me that in his great dread of his students using these 'iron hands' too indiscriminately, he had switched to the other extreme and his words of advice soon became a dead letter. Had I followed his order, if I did not lose my patient outright, she would have been left with a vesico-vaginal or recto-vaginal fistula for the balance of her life, as no operation for repair of such cases was then performed."

In speaking of venesection in his earlier days he cites so many instances of what wonderful results he got through bleeding. All his cases of acute fevers were bled systematically, and it was the habit of a great many of the older folk every spring to walk eight or ten miles to the Doctor's office to have their annual blood letting to "remove them spring feelin's," as they called it and after being depleted they would walk home much relieved by the operation. I can remember the little blood-letting lancet which he always carried in his vest pocket, with its tortoise shell handle, always ready to act when called upon.

The abdomen was a sealed cavity. The name appendicitis was unknown, typhlitis or perityphlitis was the cognomen. To quote from memoirs—"The safeguard for any man's inquisitiveness to see the patient's 'insides' except by postmortem procedure was the dread of an action for mal practice instigated by some person versed in the law."

In the cases where my Father wished to obtain quick relief from pain there was no such thing as a hypodermic syringe. He relied on morphia or laudanum by mouth, and in his anxiety to relieve was often met with toxic effects from an overdose, not knowing (where vomiting was present) how much of the narcotic was retained. No clinical thermometer was then in existence, but it was astonishing that with all these adverse circumstances and with restricted knowledge the country doctor plodded along, hoping for better things. He depended greatly on the pulse and upon help from his stethoscope and with a discerning and sensitive sense of touch, seeing hearing and observation at command, he was able to differentiate disease with considerable accuracy.

You may ask perhaps how it was possible for a Doctor with his busy life, to ever keep himself abreast of the times by reading, but to demonstrate how it was possible to at least some degree keep up in his reading, I will quote from his memoirs.

"But you will ask when, amidst all these obstructive conditions, existing in a country doctor's life, when he is worn out by long, fatiguing journeys, buffeting the snow drifts in winter and the driving rains in summer, over rough, hazardous and lonesome roads, when I say, has a doctor time for study? A man with any spark of ambition would scorn to be classed among the old school by-gones. He must force himself to grasp every fleeting moment. It became therefore my habit to stuff my pockets full with professional literature and while driving, with pipe in mouth, and with reins over my neck, to

open up these periodicals and read with avidity. It was a happy time for me when perchance I was detained at some lonesome shanty, some miles from home, to be able to sit beside a smoky lamp, or a tallow candle, and pore over my book or magazine, wherein was contained so much valuable knowledge to me."

I cannot help at this stage saying how much I admired my Father in many ways and to demonstrate his loyalty, and wholeheartiness in his work, let me quote from the latter part of his sixty years experience in Medicine.

"These were laborious times; but it is not work as simple work that hurts. We do not mind the strain if we have a good physique—we can live and thrive under it, but it is the galling responsibility which bows us down, especially when we have none other with us to help bear the load. But thanks to God, it is then that courage comes to emancipate us; when, in the hour of peril to our patient, it is then for us not to tremble, not to shrink from the responsibility, not to hesitate, to falter, to stand despairing, but to bring our nervous system into subjection and to act and that promptly. And where is our reward? To give an answer I will quote a few lines from Ian Macheran's inimitable book, 'The Doctor of the old School.' The Doctor is talking to his old mare Jess in these words as he is breaking his way through the snowdrifts. 'It's a coorse nicht, Jess, and heavy travelin', Can ye see afore ye lass? For A'm confused wi' the snow. Bide a wee till A find the devesion o' the roads. It's aboot here, back or forrit. Steady, lass, steady, dinna plunge, it's a drift we're in, but ye're no sinking. Up noo, there ye are on the road again. Eh, it's deep the night and hard on us baith, but there's a puir wumman nicht dee, if we did na warstle thro'. Ye're fair dune Jess, and so I am masil. We're baith gettin' auld and dinna tak sae weel wi' the nicht work. It's been a stiff journey, A'm tired lass, A'm tired tae deith.' Here is our reward. We wrestle thro' snowbanks and are urged on with the impulse that if we neglected our duty a woman might die. Thus we force ourselves thro' life, alleviating the pain, the sorrows, the troubles of others, and if not rewarded in this world, may it be our lot to hear that blessed word 'Well, done good and faithful servant enter thou into the joy of thy Lord.'

Thus, when we get through with every trying individual case as we meet them in our daily course, and all is over, we can

'Scatter sunshine all along our way,
Cheer and bless and brighten every passing day.'

And as a compensation, we can most heartily rehearse this couplet—

'A little kindly word each day
How much it helps us on our way'."

EARLY RECOLLECTIONS IN MEDICINE

C. J. Fox, M.D., Pubnico, N. S.

PURSUANT to a request from the officers of the Western Nova Scotia Medical Society I am reluctantly attempting to give a sketch of the early members of the profession who supplied the localities represented by our Society, and of the conditions under which we worked about the time that I entered the profession.

In the early days Shelburne was the only medical centre for the Eastern part of the County, and that was supplied by Dr. Jamieson, I believe a former Medical Officer of the British Army. He was succeeded by Dr. Snyder, who for many years supplied the medical needs of that district and was highly esteemed as a medical practitioner. In connection with this it is related that a younger Doctor was called to a woman in confinement when she told him she "would rather have Dr. Snyder's trousers than him."

Barrington, the next centre to the West, was in so far as I have heard first supplied by Dr. John Fox, who began his medical career as a surgeon's apprentice in the British Navy; and incidentally was present at the taking of Washington in 1814. He came to Barrington probably in the thirties. After him came Drs. I. K. Wilson, Geddes and Schraye. The first, who graduated in Philadelphia, had a set back in his studies by embarking in a vessel which was blown off its course and fetched up in Bermuda. He was the father of the late H. D. Wilson, and grandfather of the present A. M. Wilson, thus making three generations of the same family practising in the same locality. Dr. Schraye practised in Barrington several years till his death and Dr. Geddes removed to Yarmouth where he died several years after.

The first physicians that I have heard of in Pubnico were the two brothers, Hill, who succeeded one another. After them came Dr. W. G. Barton, father of W. J. Barton now in Halifax. He came to Nova Scotia under somewhat similar circumstances as the refugees during the Revolution, as he was forced to leave the Southern States during the Civil War; making his escape in a blockade runner to Yarmouth in the early period of the war.

For the record of the early medical men of Yarmouth I am indebted to the report of the late Dr. D. A. Campbell. They consist of Dr. J. N. Bond 1779-1830, the first to perform vaccination in Nova Scotia. Henry Greggs Farish came to Yarmouth in 1803 and remained till his death in 1856. He was grandfather to the present Dr. G. W. T. Farish. His three sons followed in his footsteps and two of them settled in Yarmouth, where they died within living memory. These were the early pioneers in this district and are the nucleus of the present generation of practitioners. Though their work would fall short of the present day standard they represented in so far as they were capable through education or character the accumulated knowledge of the centuries before.

The time when I began practice in 1876 was perhaps about the opening of a new era in Medicine and Surgery, more particularly the latter.

Abdominal surgery was very limited, and of dubious outlook, in that it had not adopted antiseptics, which now permit of almost unlimited exploration of the abdomen.

My earliest experience with vaccination was in my student days with my preceptor, Dr. J. A. Coleman, and the only material available was scabs ground up and mixed with water. Vaccine was the only animal product used in medicine if we except cantharides. They are so numerous now that I will not attempt to enumerate them. The most outstanding of these is perhaps Diphtheria Antitoxin, which most of the practitioners of the present day found ready to their hands, but in the seventies with what in too many cases was a losing battle we had to depend on local applications and tincture of iron. As late as 1884 Jacobi of New York writing an article for Depper's System of Medicine said—"The first axiom in the treatment of diphtheria is that there is no specific."

Antiseptic surgery was not practised and opening the abdomen was almost unthought of except as a last resort. There was but one hospital in the province; and that, owing to lack of communication, practically out of reach. Under the circumstances we did the best we could.

A number of cases of ovarian cyst came up and were temporarily relieved by tapping, with however, the inevitable result in the end. Appendicitis which now we see reported every few days was unknown as such; but was camouflaged under various names. I can recall at least three cases that might probably have been saved by operation. In 1890 Dr. Webster and myself operated on a case of appendicular abscess, the first that either of us had seen. About this time we began to realize that appendicitis was a surgical problem, though several cases had recovered after rest of body and bowel.

In obstetric practice I had one somewhat tragic case, which in so far as I have any knowledge is quite unusual. A multipara was apparently progressing favourably with normal presentation and moderate pains, when suddenly she collapsed; the head receded and she expired in a short time. An autopsy revealed a rent in the upper segment of uterus several inches long with the foetus partly in the abdominal cavity.

There were several cases of eclampsia, due mainly to a lack of prenatal care as in the majority of cases we were unaware of pregnancy until called for delivery.

In the early days of my practice and for a number of years typhoid was prevalent; and could be looked for with confidence after the first rains in the Fall, in many instances attacking the whole family; but due to more intelligent attention to methods of sanitation, it has become a thing of comparatively rare occurrence. The treatment was expectant except in cases of intestinal haemorrhage, and then it is a question how far the treatment influenced the result.

In the last half century there has been a considerable change in the instruments of diagnosis and treatment. We had the stethoscope, thermometer, and rarely the microscope; and drugs were very different from the present day products of the pharmaceutical houses.

If we used pills we rolled them ourselves; but generally evaded that by making up powders. The present vast array of tablets was unknown. If we needed plasters, they had to be spread as required, on cloth improvised for the occasion.

I have not touched on the care of the sick; skilled nursing was non-existent in country practice, and has remained so until comparatively recent years. I can only wonder how so many survived the lack of care, or perhaps mis-directed care. On entering the sick room my first duty would be to raise the blind, before I could see the patient; while an open window would be courting disaster, and as for bathing—as one man told me he had not had a bath since as a boy he had gone in swimming.

In the previous pages I have endeavoured to give a fleeting sketch of conditions of fifty years ago, and will leave to the reader to make comparison, wondering in the meantime what will be the opinion of the doctor of fifty years hence as he looks back from 1984 over the years.

Editor's note: Dr. C. J. Fox, who contributed the above article, has been engaged in practice in Pubnico for the past fifty-four years. After this long period of time we are pleased to know that Dr. Fox is still in good health and actively engaged in practice.

CASE REPORTS

A Case of Duodenal Ulcer.

Mr. F. S.—age 50—Admitted to Yarmouth Hospital Oct. 17, 1933.
Hosp. No. 16233.

C. C. Pain in abdomen.

F. H. No familial diseases, married, wife and one child living and well.

P. H. Pleuropneumonia at the age of 10 years, "Influenza" several times, never severely. At age of 41 laparotomy—removal of gall bladder and appendix.

P. I. On carefully going into the history of the patient we found that he had suffered for years with abdominal symptoms which started about the age of 20. The main symptoms have been pain or distress, or perhaps only a heavy feeling usually located in the upper abdomen with a fairly definite relation to meals, i. e. coming between meals and often relieved by taking food. For a long time he had long periods of intermission e. g. during 4 years spent in the war service he had no symptoms at all. For about 2 years following an operation 9 years ago he was much better, then there was a gradual return of his old symptoms which recurred periodically. However, about 10 months ago he began to suffer from attacks which differed from those he had had previously. These attacks were characterized by colicky pain with sensation of gurgling and gas in abdomen roughly located in region of navel. The attacks came in late afternoon or during night and were quite severe. They were relieved by vomiting on several occasions. Vomitus contained no blood, but was in large quantities and foul smelling. Bowels have been constipated—kept open with laxatives and he always felt better when they were moving well. Never noticed any blood in bowel movements. Patient managed to keep around at his work however, until 3 weeks ago when he had a severe attack of vomiting and diarrhoea lasting four days. Since this time he has suffered more or less constantly from distress in the abdomen with mild to severe colicky pain every day usually in latter part of the day. Failing to get relief he was referred to hospital for study. There has been no loss of weight and no important C.R. or G.U. symptoms.

P. E. Shows a well developed man of about fifty years of age fairly well nourished, slightly pale, and perhaps a little cachetic. Except for the following positive findings the P. E. is essentially negative: (1) A very badly coated tongue and foul breath. (2) Bad looking teeth with some gum infection. (3) Pulse about ninety on admission which however, dropped to between seventy and eighty during stay in Hospital. (4) The abdominal examination showed periodically some distension in left upper abdomen and definitely visible peristalsis. No definite masses were felt and no real tenderness elicited.

Lab. Exam.: Urine essentially negative chemically and microscopically. Stool—Two examinations showed large amount of occult blood. Blood—Hb. 85, W. B. C. 9,000. R. B. C. 3,900,000.

Gastric Analysis:

	Amount Recovered	Free H.C.L.	Total Acidity	Lactic acid	Blood
Fasting contents	600 cc.	38	69	neg.	+++
1 hr. after test meal	450 cc.	60	82		+++

X-Ray—Barium series—showed essentially a very large dilated stomach filling one-half of abdomen with very sluggish peristalsis. No filling defects were noted. The pyloric region showed irregularity with a spurting out of barium and poor filling of duodenal cap. In 6° the stomach showed retention of about 80% of the barium meal. The large bowel showed no abnormalities.

On the basis of history, physical examination and laboratory findings we made a diagnosis of peptic ulcer probably at pylorus with stenosis at this area. The patient was referred to the Lahey Clinic for probable operation after staying at the Yarmouth Hospital seven days during which time he was on ulcer treatment and did seem some better.

In a letter from Dr. Sara M. Jordan of the Lahey Clinic on Oct. 26, 1933, she says the following:—"He has to-day a six hour retention of about half the meal. We are enclosing a copy of the chemical findings. We believe the ulcer is duodenal, but the obstruction could, of course, be cicatricial. In many cases it is purely spasm and oedema, and is relieved by medical treatment."

October 26, 1933. Mr. F. S.

Gastric Analysis:

Amount recovered	Food content	Free H.C.L.	Total Acidity	Occult Blood
70 cc.	50%	38	55	0

Urinalysis:

Specific Gravity	Reaction	Sugar	Albumen	Sediment
1.021	ac	0	0	7-10 W.B.C. large amt. Mucus
Urobilinogen 1:30	Non-protein nitrogen 27	Bilirubin .1		
R.B.C. 4,420,000	W.B.C. 5,800	Hemoglobin 74%		

In a further letter from Dr. Jordan on Nov. 18, 1933, she says, "Your patient, Mr. F. S., was discharged from the Deaconess Hospital on the 16th in good condition. He did very well on ulcer management, his gastric symptoms entirely cleared up after four or five days in the hospital. The blood disappeared from the stools and his stomach emptied in normal time. He had gained weight and we feel that his condition is much improved."

In reporting this case, I feel there are several points of interest. Certainly such a case demonstrates well the great value of the conservative medical treatment of peptic ulcer as it is carried out to-day. However, in my own personal experience I had never seen a case with such marked obstruction clear up under medical management and particularly as he had large doses of atropine before we took our X-Ray pictures, and therefore felt there could not be much spasm causing the obstruction, and that some surgical procedure would have to be instituted. Another point of value is that the symptoms of peptic ulcer are often very obscure and probably this patient had an operation for gall bladder disease when the real trouble was peptic ulcer. With these two points in mind I feel this case once again shows the conservatism necessary in regard to the surgical treatment of peptic ulcer.

G. V. BURTON.

Hemochromatosis.

Case—Male, age 70, engineer.

Complaints—(1)—Weakness.

(2)—Cough.

Past History—Painless jaundice without disability several times during past 15 years. Subject to chronic bronchitis and sciatic pain. Has used alcohol to excess for many years. Denies venereal disease.

Family History—One sister died from Carcinoma. Parents died from old age.

Present Illness—History is that of progressive asthenia over a four year period, accompanied by loss of 50 pounds in weight, anorexia, occasional nausea, bloating and constipation. He volunteers the information that his skin has become darker. An exacerbation of chronic bronchitis prompted him to report for medical advice.

Examination—An undernourished, markedly dehydrated, elderly male showing increased pigmentation over entire skin area. Temperature 96 degrees. Pulse 64, irregular. Respirations 26.

Head and neck. Slight impairment of vision. Pupils regular and react to light. Ophthalmoscopic findings normal. Ears and nose are normal. Breath foul. Tongue coated. Marked dental caries and pyorrhea. Tonsils are large and septic.

Glands. Epitrochlears and inguinals alone are palpable. Thyroid small and of normal consistency.

Chest. Many bronchial rales in all areas.

Heart. Moderately enlarged to left with feeble apex beat and weak grossly irregular sounds. No murmurs.

Blood Pressure. 120/70.

Abdomen. Scaphoid. Poor musculature. No demonstrable enlargement of liver, spleen or kidneys. No tenderness. No hernia.

Extremities. Cold, emaciated with muscular weakness but no atrophy. Knee jerks not elicited. Plantar reflex normal, gait normal.

Rectum. Moderate firm enlargement of prostate without obstruction. No hemorrhoids.

Genitalia. No scars or other abnormality.

Laboratory Findings—

Urine—1020; acid; albumin negative; sugar-trace (repeated several times); acetone and diacetic acid negative; a few pus cells.

Blood. Hb. 80%; R.B.C. 6,000,000 (dehydration?); W.B.C. 5,000; Sugar (fasting) 140 mg./100 cc.; Kahn 4 plus.

Stool. Normal.

Diagnoses.

Hemochromatosis

Vascular Lues

Chronic Alcoholism

Benign Prostatic Hypertrophy

Chronic Bronchitis.

Chronic Tonsillitis

Oral Sepsis.

Cardiac Decompensation

Progress—Following one week of uncooperative treatment at home he was removed to the Yarmouth Hospital because of increasing weakness, dehydration and hypotension (80/40), where he steadily improved becoming sugar free within a few days and regained his strength to such an extent that

he was able to resume his work shortly after his discharge two weeks later. Being at sea he received antiluetic treatment at irregular intervals but he carried along very well until three months later when he presented himself at my office with marked oedema of the extremities, a blood pressure of 170/98 and again signs of cardiac decompensation. Approximately one year later I again saw him following a syncopal attack, with signs of cerebrospinal lues.

Comment—Hemochromatosis, if I may be privileged to make this diagnosis without autopsy findings, is a rare disease as a perusal of the literature will indicate. It is characterized clinically by bronzing, cirrhosis of the liver, diabetes mellitus and their associated symptoms, anatomically by a generalized deposition of pigment and by a progressive destruction of liver cells and acinous and islet tissue of the pancreas with fibrous tissue replacement.

As regards etiology the two factors commonly mentioned are over exposure to alcohol or copper, both of which could very well play a part in the case reported. One must also consider the luetic condition present and the possibility of a syphilitic cirrhosis resulting in hemochromatosis.

D. F. MACDONALD.

Unusual Contents of Inguinal Hernia.

Female, age 4, was brought to hospital as a case of strangulated hernia. The doctor referring patient stated that during the past two years he had been called on three occasions and easily reduced the hernia, but to-day he found it irreducible and patient appeared quite ill.

Examination showed a markedly undernourished child with temperature 99° and pulse 115. There was no nausea or vomiting—moderate distension of the abdomen—the bowels having been unopened for three days. There was a swelling the size of a walnut above the left external abdominal ring which was very tender and gave no impulse on coughing. Although the symptoms were not typical, considering the history of the case and general condition of patient, operation was advised.

Under general anaesthesia an incision was made over the mass parallel to Poupart's. When the hernial sac was opened there was a discharge of bloody fluid and the contents of the sac was found to consist of the left tube and ovary which was strangulated by having four complete twists and showed signs of beginning gangrene. The tube and ovary were clamped and removed and the hernial sac ligated and excised. Wound closed without drainage. Patient made uneventful recovery.

Compound Dislocation of Left Shoulder.

Male, age 20, while sawing wood with a gasoline engine caught his left arm in the flywheel giving the arm a tremendous wrenching and causing an unusual disability. He was brought directly to the Hospital where examination revealed a compound dislocation of the left shoulder joint with the head of the humerus projecting out through the posterior axillary fold. All the muscular attachments were torn away from the bone down to the insertion of the deltoid and the arm was in the position of extreme internal rotation. X-Ray examination showed no evidence of fracture.

Patient was given general anaesthetic, the parts cleansed and dislocation reduced. Wound closed with drainage.

Mild infection followed but fortunately there was no apparent injury of axillary vessels or nerves. Three small abscesses developed in the anterior surface of the arm and discharged for several weeks.

The present condition after eight months shows fibrous ankylosis of the shoulder joint. Biceps and triceps functioning well with full movements of elbow and forearm. Patient is now carrying on trade as a carpenter.

L. M. MORTON.

Acromegaly.

Patient L. M., single male, age 20, white.

This young man came to my office on August 15th, 1931, complaining of diarrhoea which had lasted two weeks. Without examination I informed him to go home and take a good dose of castor oil. He was rather amused at my suggestion and said that his bowels were moving freely enough without laxatives. However, after explaining my object in doing so, he finally decided to give the laxative a trial.

Two weeks later he returned with no relief. I tried to get a history of the case and decided to give him lead and opium pills because crampy-like pains were an accompaniment.

Two more weeks passed and he returned for more pills saying that the diarrhoea was relieved only when pills were taken.

On May 23rd, 1933 I was called at his house for his mother and after treating her she instructed me to examine her son. She gave me the following history of the case:

Illness began about a year and a half ago, when he was taken with a diarrhoea already referred to above which never abated unless he was taking pills. (The patient did not get many pills because of narcotic in them). Later on he complained of weakness and did not have courage of doing anything. Later on again he developed a voracious appetite. At meal time he would eat like ten ordinary men and one hour later would complain of a weakness in his stomach which would be relieved by taking extra food. This continued for weeks and months and during that time he was steadily increasing in weight. At onset of his illness the patient weighed about 140 and now he will tip the scales to 275 or 280 lbs. at least. Last winter he would take pieces of turnips (raw), cabbage and other vegetables to bed to eat during the night. Patient also complains of fleeting blindness, sees double objects and at times he sees yellow. Also the patient gets dizzy and feels like fainting but does not actually faint.

Family history—nothing.

Personal history—never sick, except the measles when nine years old, complete recovery. No accidents.

General appearance. Patient is robust, fat with big features, although he only stands 5' 4" tall. Has a large deposition of fat over stomach and chest which makes him quite stout and uncomfortable. His mentality is defective as he speaks like a child of ten. Always laughs and jokes about

his condition. He does not consider the seriousness of his condition and only laughs at you when you try and explain to him.

I will now go over the different systems.

Gastro-Intestinal system. On looking in his mouth and throat one finds that his teeth are separated and black with many cavities and signs of decay. His tonsils are enlarged slightly but not inflamed.

Symptoms referring to stomach. Only a fulness immediately after eating and a weakness an hour later.

Signs. Nothing could be elicited on manual examination. The patient complained of diarrhoea as already referred to.

Renal System. No dysuria. Some frequency.

Urine. No albumen. No sugar. S.G. 1020.

Respiratory system. Slight dyspnoea occasionally.

Circulatory system. Heart is probably slightly enlarged. A systolic murmur in mitral area conducted towards axilla. B. P. 100/65. Pulse 140. Vessel wall at wrist is very soft and flexible. Haemoglobin 60%. R.B.C. 4,000,000. W.B.C. 6,200. Skin is smooth and soft. No pigmentation. It seems glistening over stomach.

Eye. Has diplopia, yellow visions, fleeting blindness and also spots before eyes. Each one occurs occasionally. The pupils react to light and accommodation.

The following diseases have been suggested but I will try and rule them out.

(1) *Addison's Disease*—on account of muscular and vascular asthenia and gastro-intestinal disturbances; but there is no pigmentation and disease is already over a year's duration. The asthenia in case referred to is not as great as in Addison's disease.

(2) *Grave's Disease*—on account of fast pulse and diarrhoea. There is no enlargement of thyroid gland and no prominence of eyeball nor exophthalmos. The Graefe's sign and Mobius Mobius' signs are negative. There is no tremor.

(3) *Disease of Pineal Gland*—on account of obesity, but there is no increase in growth of hair. No pressure symptoms nor focal symptoms.

The following facts have influenced me in making my diagnosis of acromegaly.

(1) A disease of internal secretions, with following facts. Large deposition of fat all over body with increased features.

(2) Eye symptoms—defects in vision as stated above.

(3) Low Blood pressure.

(4) Head symptoms—headaches, dizziness.

I have given him a tablet which contains all glands of internal secretions with no results. The patient seems to be gradually losing strength every day in spite of the tablets that he has been taking.

This case has been written on account of its interest to me. In spite of lack of laboratory tests, I made, in a bold manner, my diagnosis of acromegaly. The patient would not go to the hospital for further treatment and investigation and therefore an X-ray of his pituitary gland was not taken, or other laboratory tests. Hence my laboratory tests are lacking.

B. I. CHIASSON.

Pulmonary Embolism following Phlebitis.

D. R. a strong healthy-looking man, aged 42, came to my office, May 14th, complaining of breathlessness, blood-tinged sputum, noticed especially in the morning and slight cough.

He had had diphtheria twice, but had otherwise always been healthy. A sister had died of pulmonary tuberculosis.

A few weeks before, while working in his fox-ranch, he had suffered what he thought was a slight heart attack. He had felt suddenly weak, experienced a peculiar sensation in his chest and his heart action had become rapid and irregular. His present symptoms dated from that time. He thought they had recently become aggravated by an attack of indigestion.

On examination nothing definite could be found in the chest. The heart appeared normal. Blood-pressure was normal. Urinalysis was negative. There was a slight swelling and tenderness of the left leg. I did not at the time attach much importance to it. I suggested rest and advised an X-ray examination of the chest.

On the 1st of June the patient was laid up with a phlebitis of the right leg. In the course of a week the swelling, tenderness and fever had subsided but the patient was cautioned against the danger of using or even trying to move the limb. By this time the blood-tinged sputum had disappeared.

On June the 10th while the nurse had left the room for a few minutes the patient tried to flex the right knee. He was suddenly seized with severe precordial pain and distress. The nurse returned to find her patient almost pulseless and deeply cyanosed. There was much dyspnoea and restlessness. Temperature went up to 103 and bloody sputum reappeared. During the next few days the patient gradually improved but phlebitis developed in the right thigh the long saphenous vein being involved.

In spite of all the precautions taken the above symptoms of pulmonary embolism reappeared on June 17th. This time there was more restlessness and the patient complained of pain in the left side of his chest.

The patient was again improving when on June 21st he had the third seizure. Luckily this time it was of less intensity. The patient remained extremely weak for over a week. Then improvement set in, it was very slow but gradual from then on. About the middle of August the patient was able to sit up and in a few weeks was able to walk short distances. The patient feels fairly well now with the exception of breathlessness on exertion which seems to improve but very slowly.

On November 1st the patient was examined by Dr. K. A. MacKenzie of Halifax. He found the heart normal, no definite signs in the chest and gave a hopeful prognosis. He expressed the opinion that the "attack" which the patient had experienced while working in his ranch was probably due to an embolus as there was at that time some swelling and tenderness of the left leg.

The study of this case is no doubt incomplete without an X-ray examination being made of the chest, but so far I have been unable to obtain one.

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DR. JOHN STEWART.

THE passing of Dr. John Stewart is a great loss to Nova Scotian medicine. Primarily he was our vital link with the new evangel of Listerism, was the apostle to America of that revolutionary movement in our art. But more than that he had become in the process of time the beau ideal of our profession. I doubt if this was due only to the fact that he had collected so many honors, was held in such esteem not only on this continent but in Great Britain, where his own Alma Mater made him a Doctor of Laws. Nor was it entirely due to his excellence as a surgeon, skillful as he was in that art. In the last analysis I feel that it was *character* that made him the man he was, that placed him so high above us. One felt that throughout his entire life he was guided by very profound and abiding principles, and that he did not move from them. Nor did this strength of character result in any harshness of the emotional fabric, as it so often does. He was a gentle man as well as a strong man. His faith in his own star was marked by no touch of petty egotism, but seemed to flow out of the innate nobility of his convictions.

It is surely no exaggeration to say that he was the most illustrious of all members past and present of the Nova Scotia Medical Society. It is no overestimate to say that he has left behind an example to which we may always look with gratitude, which we can always increase our human value by emulating.

Ave atque vale! Gloria virtutis umbra!

H. B. A.

Scarlet Fever Control.

Dr. George F. Dick of Chicago delivered on October 6th, 1933, the Cameron Prize Lecture at the University of Edinburgh. This Cameron Prize was founded in 1878 by the late Dr. Andrew Robertson Cameron and has been awarded each year by the Senate of Edinburgh University to some outstanding person who during the past five years has made some decidedly original and valuable contribution to practical therapeutics.

Among those who have previously been awarded this signal distinction in Medicine are persons like Lord Lister, Madam Curie, Louis Pasteur, Von Behring and Sir Ronald Ross.

Last year's prize was awarded equally to Dr. George F. Dick and his wife, Dr. Gladys H. Dick for their joint work on the cause, prevention and cure of Scarlet Fever. These distinguished Americans fully merited the award.

In his address Dr. Dick dwelt principally with the control of Scarlet Fever. He emphasized the fact that a haemolytic streptococcus had been isolated which satisfied Koch's postulates as regards the identification of any organism as the causative factor of a given disease. He explained in detail the series of experiments leading to the preparation of Scarlet Fever toxin and the development of the anti-toxin by the immunization of horses. He emphasized the fact that it is now possible by means of this established therapeutic method to bring an epidemic of Scarlet Fever in an institution under control within forty-eight hours.

During the mild epidemic of Scarlet Fever in Yarmouth last year, the local Board of Health provided free toxin for use among the poorer class of school children in the town. Some 500 cases that reacted positively were immunized. The epidemic ceased abruptly—only two cases were reported following this procedure. All the Physicians of the town attended the free clinic and gave their services gladly.

There have been no cases of Scarlet Fever reported in Yarmouth so far during the past twelve months.

T. A. L.

New Departure.

The material for this edition, covering the Historical, Scientific and Case Report Sections, was furnished by the Western Nova Scotia Medical Society. In our next issue the Cape Breton Medical Society will supply the material.

OBITUARY

THROUGHOUT the Province, among his fellow Dalhousians of the class of '24 news of the death on December 4th in the Victoria General Hospital, Halifax, at the comparatively early age of thirty-seven years, of Dr. John Archibald MacLean, will be received with deep regret and with sincere sympathy for his mother. Dr. MacLean was a graduate in Medicine of Dalhousie, where as a student his record was a fine one. He had established a large medical practice in Glace Bay and enjoyed the high esteem of his brother practitioners who will recognize in his death a real loss to the profession. He was a son of Mrs. Margaret MacLean and the late John A. MacLean, and was unmarried. The funeral and interment took place at Glace Bay.

In the seventy-eighth year of her age, Mrs. Catherine Lyons, widow of J. M. Lyons, Q.C., one of the ablest lawyers in Halifax some years ago, died on December 4th at the Halifax Infirmary. Before her marriage she was Miss Catherine Purcell. She is survived by one daughter, Sister Marie Raphael, of the teaching staff of St. Patrick's High School. The late Dr. J. N. Lyons was a son of the deceased.

LABORATORY

LABORATORY EXAMINATIONS: Their indications, method, and interpretation with special reference to the requirements of the general practitioner.

By RALPH P. SMITH, M.D., D.P.H., Provincial Pathological Laboratory, Halifax, N. S.

Red Cell Count.

Principle of Test.

The blood is diluted by a fluid which preserves all the cells. The cells of the diluted blood are counted in a chamber as in the white cell-count. Both red and white cells are counted but as there are about 1000 red cells to one white, the white cells do not materially change the result. The total number of red cells per cubic millimeter of undiluted blood is estimated by multiplying by a factor to make up for the fraction of a cubic millimetre counted and for the dilution.

Outline of Technique for Red Cell Count:—

1. Obtaining the specimen:—Draw blood to 0.5 Dilute with Hayem's fluid to 101. Discard the first drop. Place the diluted blood in counting chamber. It must not overflow.
2. The Count:—Use the high dry lens. Count 5 large squares each including 16 small squares. To the total of cells add four zeros. This is the number of cells per cubic millimetre. Normal 4 to 6 million.

Hayem's solution:—

Mercuric chloride.....	0.5 gms.
Sodium chloride.....	1.0 gms.
Sodium sulphate.....	5.0 gms.
Distilled water.....	200 cc.

Interpretation:—

Normal number of red cells in a cubic millimetre of blood.

At birth:—Average 7.5 million.

Total range 6 to 9 million.

After eight days:—

Average 6 million.

Total range 5.2 to 6.6. million.

After eight days there is a slow gradual drop to the adult figures. This is in contrast to the low hemoglobin figures at one and two years of age.

Adult males aged nineteen to thirty years:—

Average 5.4 million.

90% of men 4.7 to 6.1 million.

Total range of men 4.2 to 6.4 million.

Adult females, aged nineteen to thirty years:—

Average 4.8 million.

90% of females 4.3 to 5.3 million.

Total range of females 4.07 to 5.55 million.

The red cell counts of an individual may vary half a million in eight hours. Counts on capillary and venous blood are usually within a quarter of a million of each other in health and in most diseases, pernicious anaemia being a remarkable exception where the cell counts in capillary blood may be a million higher than venous blood, due to the many macrocytes being retarded in the capillaries.

*Decreased red cell counts in anaemia:—*Counts of 3.5 to 4 million may be regarded as mild anaemias. Counts of 2.5 to 3.5 million may be regarded as moderate anaemias. Counts below 2.5 million may be regarded as severe anaemias. Most patients with secondary anaemia have only a mild or moderate cell decrease when they are first examined. In fact there may be only a haemoglobin decrease with the cells over 4 million in very early cases. Pernicious anaemia patients have a moderate or severe cell decrease when they first consult a physician.

The red cell count is an important diagnostic sign in anaemia. It is a quantitative figure that can be recorded. It is not subject to the opinion of the examiner. It gives somewhat parallel information to a blood-smear examination for anisocytosis i.e. the variation in the size of the red corpuscles. The examination for anisocytosis has the disadvantage that it is subject to the opinion of the examiner who may not be well acquainted with the normal and abnormal degree of variation and it is difficult to record the varying pathological degrees of anisocytosis without doing actual cell diameter measurements and charting it as a Price-Jones curve; or examining by the halo method.

*Increased red cell count in Polycythaemia:—*In infancy there is a normal polycythaemia of 6 to 9 million. In healthy adults the red cell count increases to 8 million at high altitudes. In acute severe diarrhoeas, persistent vomiting, starvation or shock, the blood count is also high due to the rapid removal of the liquid part of the blood from the blood vessels. It may be present in marasmic states in infants.

In chronic disease, an increase in the number of red cells is not uncommon. A count of 6 to 9 million may result from a chronic embarrassment to the pulmonary circulation as in mitral disease, chronic asthma with emphysema, and congenital stenosis of the pulmonary artery. Cyanosis from any cause will be attended with an increased red cell count.

Without known causes the greatest increase occurs in the Osler Vaquez disease or polycythemia vera. The skin and mucosa have a deep reddish colour and the red cells are from 8 to 12 million per cu. mm. Occasionally the blood picture may resemble myelogenous leukaemia in the late stages or even end in a profound anaemia if the patient lives long enough. Phenylhydrazine in 5 gr. doses daily will reduce the abnormally high cell counts but its administration should be controlled by frequent blood counts.

The Blood Smear.

*Principle:—*A small drop of blood is thinly spread on a glass slide and the cells are viewed under a very high magnification lens of the microscope. A staining fluid may be used to sharpen the various outlines especially the nuclei

and granules of the white cells. This is the most important single examination of the blood cells.

Outline of Technique:—Making the Blood Film:—Place a small drop of blood near the end of one slide. Spread it out with the edge of a cover-glass or slide by making the blood follow the moving spreader.

The Stained Film:—For a general examination use the high dry lens with the film mounted. For minute detail use the oil-immersion lens. A Routine stain of Wright or Leishman, for all features listed below. Stain for two minutes. Add an equal amount of distilled water for three to five minutes. Wash with distilled water. Allow to dry. Mount.

Examine for the following Features:—

1. Frequent and Important Findings:—Achromia,—an unusual lack of colour in the centre of some or all red cells.
2. Poikilocytosis—a deviation from the circular outline, not artefact.
3. Anisocytosis—an irregularity in the size of the cells, a. Microcytes—red cells smaller than normal. b. Normocytes, red cells of normal size. c. Macrocytes, red cells larger than normal.

Infrequent Findings:—

4. Nucleated red cells, a. Normoblasts—a cell similar in size and cytoplasm to the red cell, but having a small blue nucleus. b. Microblast—a nucleated red cell, smaller than a normoblast. c. Megaloblast—a large red cell with pale cytoplasm and a nucleus.
5. Basophilic stippling—minute black dots in occasional red cells.
6. Polychromatophilia—an irregularity in staining of the red cells. (The latter two are a sign of immaturity of the red cells).
7. Malarial parasites—appear in the cell as blue ring forms, crescents or bands, small or large with red or black dots in them.

Important Observations other than Red Cells:—

8. Blood Platelets:—occur in clumps, note approximate change in their 1 in 25 ratio to red cells.
9. White cells—more occur at the end and margin of the smear than in the centre; note the approximate change in their 1 in 1000 ratio to red cells, if increased, whether lymphocytes or polymorphonuclears.
10. Differential white cell count.

Interpretation:—

1. Achromia is the main change in haemorrhagic or chlorotic anaemia
2. Poikilocytosis occurs in any moderate or severe anaemia.
3. Anisocytosis is most marked in pernicious and less so in other haemolytic anaemias. In pernicious the average diameter of the cells is increased. It does occur in haemorrhagic anaemias but not until the achromia is very marked. The Price-Jones diameter curve is a precise method of recording this observation with the halo method a valuable substitute.
4. Nucleated red cells occur in anaemias where the immature cells are called out. The very severe chronic anaemias like pernicious may call out the very primitive megaloblast.
5. Basophilic stippling with a red cell count from 3 to 5 million is pathognomonic, although not present in all cases, of lead poisoning.
6. Polychromatophilia is found in any severe anaemia.
7. Malarial parasites mean malarial fever.

8. Platelets:—A reduction to one-quarter their normal number may be detected from the blood smear and means aplastic anaemia or thrombocytopenic purpura.
9. White cells:—An increase of 10,000 to 20,000 leucocytes which usually result from infection by streptococci, pneumococci, or other cocci may be detected from the blood smear. The marked lymphocytosis such as occurs in bacillary infection like whooping cough may be detected. The enormous white cell increase occurring in the leukaemias is readily detected in the stained smear by anyone who can differentiate a red cell from a white cell.

Reticulated Red Cell (Reticulocytes).

Principle:—Immersion of fresh, wet blood in a vital stain shows in premature cells (red), reticular lines which are not apparent when the dried smear is stained. This is a means of estimating the rate of cell reproduction.

Outline of Technique:—1. Spread thin a film of brilliant cresyl blue on a slide. Allow it to dry.

2. Touch a coverslip to a small drop of blood and let it fall on the stained area and spread over once by laying another cover slip on top and withdrawing. When desired the films may also be stained with Wright's Stain which, combined with brilliant cresyl blue, gives beautiful preparations.
3. After three minutes count under the oil-immersion lens the percentage of reticulocytes in 1,000 cells.

Appearance of the Cells:—The red cells are a yellowish-green and when reticulated cells are present, they appear normal or achromic with short, deep-blue lines interwoven in a skein fashion sometimes in the centre, sometimes like a wreath just inside the margin. The white cells stain a purplish-blue.

Interpretation:—An increased reticulocyte count is probably the earliest indication of accelerated red cell reproduction. This rapid cell formation leaves imperfections in the cell stroma and when vitally stained they are seen as deep-coloured broken lines.

Under ordinary conditions there is less than 1 per cent. of reticulated cells in normal blood. When there is a great demand for red cells either due to loss in haemorrhage or destruction by infection, more reticulated cells appear. At the beginning of a remission in pernicious anaemia or in an important rise of the red cell count the reticulocytes form over 5 per cent. This percentage gradually falls below 1 per cent. as the increase is completed.

A *compensated anaemia* is attended by over 3 per cent. of reticulocytes. It occurs where the cell reproduction activity of the bone-marrow keeps pace with the blood loss thus giving a normal total red cell count.

In *actual anaemias* the percentage of reticulated red cells ranges from 0 to 20 per cent., depending on the activity of the bone-marrow. The reticulocyte increase takes place during the first two weeks when the most urgent need is met, the reticulocyte percentage goes below 3 per cent. although the haemoglobin percentage and red cell count, which may still be only half their normal values, continue to improve.

Acute haemorrhage in a healthy individual is followed by an increase of reticulated red cells from 10 to 25 per cent. during the first two weeks after the haemorrhage if the patient is on an appropriate diet. A month after the haemorrhage although the patient has a moderate anaemia and continues to improve there may be no reticulocytes present.

In anaemia from chronic haemorrhage the percentage of reticulated red cells will range from 1 to 5 and it is a good indicator of the activity of cell reproduction.

In toxic anaemias from infections or chemicals the reticulated per centage is usually low because the toxic agent has a damaging effect on the bone-marrow.

Haemolytic anaemia shows an increase of from 10 to 40 per cent. of reticulated red cells, the greatest number occurring during the attacks of jaundice.

Prior to diet treatment of *Addison's anaemia* the reticulocytes are less than 2 per cent. except during the early stage of remissions when many reticulocytes can be seen. Murphy reports a great increase in reticulocytes following liver diet. An increase starts on the third day of the diet and reaches its highest point, 5 to 20 per cent., in seven days. It returns to normal after the second week while the haemoglobin and red cell count continue to increase. During this time the icterus index decreases from readings of over 15 down to normal in three to four weeks, signifying a lessened haemolysis of the imperfectly formed cells. This would point to the liver diet (cooked liver $\frac{1}{4}$ to $\frac{1}{2}$ pounds, muscle meat $\frac{1}{4}$ pound, abundance of green vegetables and fruit daily) supplying a substance which enabled the bone-marrow to manufacture normal cells very rapidly until the cellular deficiency of the blood is made up. Intramuscular injection of liver extract causes a still more rapid rise.

In aplastic anaemia there are no reticulocytes in the blood because the exhausted bone-marrow cannot supply new cells. It is always worth while to apply the therapeutic test of liver diet if a cause cannot be found. After four or five days examine for reticulocytes. Sometimes they appear in Addison's anaemia of the aplastic type. More frequently none are seen and so one cannot expect improvement. Blood transfusion as a temporary remedy may be considered.

Outline of White Cell Differential Count:—

Making the Blood Film:—Place a small drop of blood near one end of a glass slide. Spread it out with the end of a cover glass or an other slide by making the blood follow it. The smear should not be too thin.

Routine Stain. Wright's or Leishman's. Stain for one minute. Add distilled water three to five minutes. Flood the slide and wash off with distilled water.

At first differential counts should be done under the oil-immersion lens. Later the high dry lens may be used provided the film be mounted under the cover-glass.

The Count:—Count about 300 white cells. Record them by the tally system and calculate the percentage of each variety.

- | | | |
|--|-------|---|
| 1. Lymphocytes, normal per cent. . . . | 20-30 | |
| 2. Monocytes | 5-10 | |
| 3. Eosinophiles, polymorphonuclear. . | 2- 5 | |
| 4. Neutrophiles, polymorphonuclear. . | 60-75 | } unsegmented 5 to 10
} segmented 55 to 70 |
| 5. Myelocytes. | 0 | |
| 6. Undertermined types (usually number 2, 5 or 6). | | |

The basophile and myeloblast are omitted from the list because they are rare cells and of no diagnostic importance.

If 300 cells are counted the error is less than 3 per cent.

If only 100 are counted the error is over 10 per cent.

Interpretation of the Total and Differential Leucocyte Count in Brief:

Count in Brief:—Infections resulting from cocci of any variety produce a leucocytosis which is due to an increase in the polymorphonuclear neutrophile cells.

Over 85 per cent of polymorphonuclears points to pus formation; 90 per cent. to a very severe infection. The resistance is good if the total leucocytes are increased proportionally and poor if they are not increased. There should be:—

15,000 total with 80 per cent. polymorphonuclears.

20,000 total with 85 per cent. polymorphonuclears.

25,000 total with 90 per cent. polymorphonuclears.

The percentage of the young unsegmented band-shaped polymorphonuclears to the total white cells is a more valuable index. If taken at four or eight hour intervals, it is a better prognostic guide than the temperature chart.

10 to 15 per cent. indicates a mild infection.

15 to 30 per cent. indicates a moderately severe infection.

30 to 40 per cent. indicates a very severe infection.

Over 50 per cent. indicates a fatal infection.

The absence of eosinophiles is an unfavorable sign. Their presence is favorable.

Infections resulting from bacilli of any variety produce a mild lymphocytosis. Any infection, especially tuberculosis, involving lymph glands, will produce a lymphocytosis. Whooping cough produces a leucocytosis of 20,000 to 30,000 of which 60 per cent. are lymphocytes. An increase in the lymphocytic percentage without total increase of leucocytes occurs in influenza, typhoid (monocytes), exophthalmic goitre and malaria. The presence of many myelocytes or lymphocytes in the blood of a patient who has little or no fever points to leukaemia.

Interpretation of White Cell Differential Counts in Detail:—

Any increase in the total leucocyte count is usually due to an increase in the neutrophile polymorphonuclear cells, which are of myeloid origin. Infection resulting from cocci of any variety, produce an increase in the polymorphonuclears. Streptococci, pneumococci, staphylococci, and meningococci, are the commonest offenders. These organisms produce some of our most serious diseases such as appendicitis, pneumonia, meningitis and puerperal sepsis.

An increase in the total white cell count, wholly due to polymorphonuclears, is known as an *absolute polymorphonuclear leucocytosis*. If the infection is very severe it may use up the white cells as fast as they are made, leaving the total leucocyte count normal but the percentage of polymorphonuclears markedly increased. This state is known as a *relative polymorphonuclear leucocytosis*. The increase in the percentage of polymorphonuclears indicates the severity of the infection, over 85 per cent. pointing to pus formation. The total white cell increase indicates the resistive powers of the patient.

Bacillary infections do not produce an increase of the polymorphonuclear cells, but are accompanied by some changes in the lymphocytes and one may classify the states as absolute or relative lymphocytosis. An example of *relative lymphocytosis* is influenza which causes a normal or decreased total leucocyte count of which the percentage of lymphocytes is frequently increased. In typhoid fever the leucocyte count is normal or decreased and there is a slight increase in the monocytes. Whooping cough produces *an absolute increase in the lymphocytes*, with a total white cell count of 15,000 or more of which 60 per cent. are lymphocytes. There is an increase in the percentage of young forms of polymorphonuclears in all bacillary infections although the total polymorphonuclears are not increased.

Acute infectious diseases in which there is a monocytosis induce a lifelong immunity. Prominent examples are typhoid, whooping cough, measles, chickenpox and mumps. These diseases affect the reticulo-endothelial tissue. On the other hand endothelial monocytosis, which is often accompanied by a haemorrhagic tendency, occurs in bacterial endocarditis and at the end of septicemia.

In mixed infections, which are very frequent, the white blood picture usually mirrors the type of infection that predominates. In typhoid fever, if a septic complication such as peritonitis, arthritis or osteomyelitis due to streptococci sets, in the leucocyte picture changes from one typical of typhoid to one typical of a streptococcal infection.

Diseases due to protozoan infections such as amoebic dysentery, syphilis or malaria are usually accompanied by an increase in the monocytes. Exophthalmic goitre is usually accompanied by a general lymphoid hyperplasia throughout the body and this is reflected in the blood stream by an increased percentage of lymphocytes. Monocytosis and lymphocytosis are not definite means of diagnosis however. Any infection involving a number of lymph glands such as tuberculosis or at times new growth such as lymphosarcoma, will cause an increased percentage of lymphocytes in the blood. In a tuberculosis of the lungs a polymorphonuclear increase indicates activity. A relative lymphocytosis usually the reverse.

Finally it is at times impossible to distinguish leukaemoid blood pictures seen in bacillary infection from the leukaemias. Krumbhaar has quoted cases of acute infections having myelocytes and even myeloblasts. Patients suffering from measles or pertussis have had over 75,000 leucocytes per cu. mm. over 80 per cent. of which were lymphocytes. If the lymphocytic percentage is over 90 with glandular enlargement and but little fever the case is almost certainly one of lymphatic leukaemia.

Rare Conditions:—Agranulocytic angina or agranulosis occurs in patients suffering from an ulcerative lesion in the mouth or throat accompanied by an extreme leukopenia in which there are few or no polymorphonuclears. There are usually eosinophiles and platelets present indicating that the whole bone-marrow is not exhausted. These states have much in common with the monocytes and the infection is due to Vincent's organisms. Glandular fever or infectious mononucleosis may be another form in which the source of a similar infection is obscure.

Haemoglobin Determination.

Haemoglobin Estimation by the Paper Scale (Tallqvist):—After cleaning the skin and needle, prick the ear with a quick stroke so as to make the blood flow without much pressure. Touch one of the small detached sheets of

absorbent paper to the drop, fold the paper and blot the drop at once. This gives a layer of blood achieving a uniform thickness. Compare the colour immediately with the scale at the back of the book using daylight coming from over the shoulder. Margin of error 10-20 per cent. depending on the experience and skill of the examiner. No physician should be satisfied with such a possible error as this. The haemoglobin figures and colour index estimations based on them may be very misleading. It is not possible to detect any hyperhaemoglobinemia by the paper scale.

The scale method should be replaced by Sahli acid hematin method now that Sahli instruments may be obtained with permanent standards at a low cost and are accurate to within 5 per cent. if the apparatus be standardized. It requires less than ten minutes to do a Sahli acid hematin estimation. The Dare Haemoglobinometer is accurate but expensive.

Interpretation:—Briefly stated the normal haemoglobin is 85 to 110 for adult males and 10 per cent. lower for adult females. At birth it varies from 110 to 150 but falls so that at one year it is 65 to 85 per cent. and makes a gradual ascent to reach the normal figures at sixteen years of age.

Subnormal Haemoglobin, Anaemia:—A diminution in haemoglobin is the earliest positive sign of anaemia. The exceptions to this rule are very few indeed. In adults 85 to 65 per cent. haemoglobin is a mild anaemia, 50 per cent. to 65 per cent. is a moderate anaemia and below 50 per cent. should be regarded as severe. In children three months to three years of age these figures should be lowered 10 points. Patients usually complain of weakness, breathlessness and palpitation when the haemoglobin approaches the 50 per cent. level.

If the haemoglobin is at the lower limits of normal or when the clinical evidence favors anaemia, a blood smear should be examined for irregularity in size and shape of the cells. If the smear appears normal it is not necessary to make further blood examination but if the haemoglobin be low or the cells irregular in size a complete blood cell examination including red blood cells count with the percentage of reticulocytes, a platelet count, a total differential white cell count should be undertaken. When this is completed one should investigate the cause of the anaemia systematically.

Increased Haemoglobin:—In infants an increased haemoglobin content of the blood is normal. It is normal in adults at high altitudes. In disease, hyperaemoglobinemia occurs where there is any embarrassment to the circulation in the heart such as mitral stenosis or congenital narrowing of the pulmonary artery. It also occurs in many cases of advanced emphysema and asthma. It is present with the high red cell count in erythraemia or polycythemia vera.

The haemoglobin estimation is of very definite use in the detection of dried out states especially in enteritis, vomiting and high fevers. Here the haemoglobin increase is a good index to the degree of anhydremia, lessened blood volume and increased viscosity which work a great hardship for the heart in these conditions. The haemoglobin estimation is a good control to determine the amount of fluid required by a patient in a dried out state. It is a more accurate index than the feel of the skin, the dryness of the tongue and the appearance of the soft tissues around the eyes.

Department of the Public Health

PROVINCE OF NOVA SCOTIA

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

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Chief Health Officer - - - - DR. P. S. CAMPBELL, Halifax.
 Divisional Medical Health Officer - - - - DR. C. M. BAYNE, Sydney.
 Divisional Medical Health Officer - - - - DR. J. J. MACRITCHIE, Halifax.
 Director of Public Health Laboratory - - - - DR. D. J. MACKENZIE, Halifax.
 Pathologist - - - - - DR. R. P. SMITH, Halifax.
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 Kelley, H. E., Middleton (County) (No report from Town).

ANTIGONISH COUNTY

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 MacKinnon, W. F., Antigonish.

CAPE BRETON COUNTY

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 Miller, B. F., New Waterford.
 MacKeough, W. T., Sydney Mines.
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O'Neil, F., Sydney (Louisburg & C. B. Co.).
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..... (County).
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PICTOU COUNTY

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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.

Communicable Diseases Reported by the Medical Health
Officers for the month of December, 1933.

County	Cer-Spi. Meningitis	Chicken Pox	Diphtheria	Influenza	Measles	Paratyphoid	Pneumonia	Scarlet Fever	Typhoid Fever	Tbc. Pulmonary	V. D. G.	V. D. S.	Whooping Cough	TOTAL
Annapolis	2	..	..	..	..	..	..	3	..	..	5
Antigonish
Cape Breton
Colchester	..	8	..	..	..	..	1	..	..	..	..	..	38	47
Cumberland	1	..	..	3	..	..	1	1	..	6
Digby	..	6	..	..	..	..	3	..	..	..	..	..	..	9
Guysboro	2	..	..	..	..	..	..	2
Halifax City	..	6	8	..	..	..	..	21	..	..	..	..	11	46
Halifax
Hants
Inverness	..	1	..	2	..	..	2	3	..	..	..	..	..	8
Kings	4	..	..	..	3	..	2	..	1	3	13
Lunenburg
Pictou
Queens	1	..	..	..	..	..	1
Richmond
Shelburne	2	..	..	..	..	..	..	..	..	..	2
Victoria
Yarmouth	1	..	..	..	..	..	..	..	..	..	..	1
TOTAL	21	9	10	1	8	31	2	4	2	4	2	52	140	

RETURNS VITAL STATISTICS FOR NOVEMBER, 1933.

County	Births		Marriages	Deaths		Stillbirths
	M	F		M	F	
Annapolis	19	6	21	10	13	0
Antigonish	7	10	3	9	3	0
Cape Breton	83	82	63	37	41	4
Colchester	23	12	10	11	13	2
Cumberland	26	33	29	18	10	2
Digby	15	18	10	10	6	1
Guysboro	16	17	4	4	4	0
Halifax	91	92	72	47	32	11
Hants	24	19	13	8	10	0
Inverness	19	12	9	8	13	0
Kings	21	20	26	7	8	2
Lunenburg	18	12	32	12	11	0
Pictou	9	14	18	9	14	0
Queens	9	9	16	7	3	0
Richmond	8	6	9	2	7	0
Shelburne	10	12	10	6	3	0
Victoria	7	2	3	4	4	0
Yarmouth	14	16	4	12	15	2
TOTAL	419	392	352	221	210	24

Report on Tissues sent for examination to the Pathological Laboratory, from December 1st, 1933 to January 1st, 1934.

The total number of tissues sectioned is 102. In addition to this, 30 tissues from 5 autopsies were sectioned, making 132 tissues in all.

Tumours malignant.....	27
Tumours simple.....	11
Tumours suspicious.....	1
Tumours pre-cancerous.....	..
Other conditions.....	63
From 5 post mortems.....	30—132

COD LIVER OIL HAS POTENT RIVAL.

New Liquid 9,200 Times More Powerful; Near Pure Vitamin A.

Akron, Ohio.—A new pale yellow oil 9,200 times more potent than ordinary cod liver oil was described to the Ohio-Michigan section of the American Chemical Society here.

The oil is almost pure vitamin A, said its maker, Prof. Harry N. Holmes, of Oberlin University. It represents America's stake in an international scientific race to be first with isolation of vitamin A, the disease-resistance builder.

At the University of Zurich Dr. Karrer has produced a similar oil 10,000 times as powerful as cod liver oil; while three Englishmen have reached vitamin A concentrations in similar oils 6,500 times and 7,800 times stronger than the fish oil.

Professor Holmes gets his near-vitamin A from halibut liver oil. He converts the halibut liver oil into a very old-fashioned substance, soap, getting rid of all except seven or eight per cent. of the fish oil, and leaving the vitamin concentrated in the leftover liquid. Modern solvent processes wash this liquid out of the soap.

When fully purified of soap, the liquid is frozen, for many days, at 109 degrees below zero, in a carbon-dioxide snow, which is solidified carbon dioxide gas. This freezing causes some of the substances in the liquid to crystalize. These crystals contain none of the vitamin but they remain crystalized when the liquid is melted, and can be raked out leaving the mixture one step closer to vitamin A purity.

Afterward the substance is filtered time after time through ultra-porous solids which take out still further impurities. The result is the extremely potent pale yellow oil. Exactly how near it is to pure vitamin A is not known.

All of these processes have to be carried on in a vacuum, to prevent the oxygen in the air from picking up the vitamin and spoiling it.—*Weymouth Gazette*, Dec. 13, 1933.

"Henry," said the nagging wife as she prepared to retire, "is everything shut up for the night?" "That depends on you," muttered Henry, "Everything else is."

Yarmouth, N. S.,
January 2, 1934.

To the Members the Medical Society of Nova Scotia.

Gentlemen:

The budgeted financial statement of our Society for 1934 shows us with a debit balance of over one thousand dollars. This is due primarily to the falling off in the payment of dues during the past year.

Circumstances over which we have no control have produced this condition.

No single group of professional men have suffered such serious financial losses in their collections as have the members of our profession.

Therefore, with the first publication of our BULLETIN for 1934, your Executive officers feel that the urgency of keeping our Society solvent must be made apparent and ways or means devised to prevent any serious embarrassment to the proper functioning of the Society.

In a few days drafts for our 1934 dues will be presented. We have 355 members in the Nova Scotia Medical Society. If each member will make a special effort to pay his draft on its presentation, we will have no difficulties financing during the coming year. This is our sole means of keeping solvent.

If the response from the members is no better this year than it was last we may be forced to suspend the BULLETIN. This would be most unfortunate and we ask you to make every effort to pay your dues for 1934.

Expenses have been materially reduced. Three hundred dollars previously paid for rent has been eliminated and other items have been cut down.

A solvent organization is a successful organization. Your officers are asking you to do your part now towards this end. We have every confidence in the knowledge that you will.

Sincerely yours,

THOMAS A. LEBBETTER,
President.

Lest we forget **Dextri-Maltose** the carbohydrate

No. 1 Maltose 51%. Dextrins 42%. NaCl 2%. H₂O 5%.

No. 2 Maltose 52%. Dextrins 43%. H₂O 5%.

No. 3 Maltose 51%. Dextrins 41%. KCO₂ 3%. H₂O 5%.

**of choice for over twenty years —
never advertised to the public**

“The dextrin-maltose preparations possess certain advantages. When they are added to cow’s milk mixtures, we have a combination of three forms of carbohydrates, lactose, dextrin and maltose, all having different reactions in the intestinal tract and different absorption rates. Because of the relatively slower conversion of dextrins to maltose and then to dextrose, fermentative processes are less likely to develop. Those preparations containing relatively more maltose are more laxative than those containing a higher percentage of dextrin (unless alkali salts such as potassium salts are added). It is common experience clinically that larger amounts of dextrin-maltose preparations may be fed as compared with the simple sugars. Obviously, when there is a lessened sugar tolerance such as occurs in many digestive disturbances, dextrin-maltose compounds may be used to advantage.” (Queries and Minor Notes, J. A. M. A., 88:266)

Correspondence

MEDICAL RELIEF.

Below is printed a letter from the Rt. Hon. R. B. Bennett, Prime Minister of Canada, to Dr. T. C. Routley, General Secretary of the Canadian Medical Association, together with a copy of the Prime Minister's letter to Premiers of the different Provinces in Canada.

OFFICE OF THE PRIME MINISTER.

Ottawa, December 12, 1933.

Dr. T. C. ROUTLEY, General Secretary,
Canadian Medical Association,
184 College Street, Toronto 2, Canada.

Dear Sir:—

I enclose you herewith a copy of a letter which I have sent to the Prime Ministers of the Provinces.

I regret the long delay. It was occasioned by the necessity of clearing up a possible misunderstanding with one of the Provinces.

Yours faithfully,

(Signed) R. B. BENNETT
Ottawa, December 12th, 1933.

Dear Premier Henry:—

A delegation representing the Canadian Medical Association met me some weeks ago and urged the desirability of the Federal Government providing a portion of the cost of medical aid for those receiving relief in the various provinces.

It was pointed out to me that many of the provinces had expressed their willingness to provide for medical services for those on relief, but they alleged that the Dominion Government prevented them from doing so.

It is rather difficult to understand such a statement being made. The responsibility of the Provinces in caring for the sick, by methods which they have themselves determined, cannot be made a Federal obligation. We have contributed to relief, but we have not set up a Federal Relief Commission as some of the Provinces are unwilling to surrender their constitutional rights in that regard.

I pointed out to the delegation that I assumed the provinces would continue to discharge their obligations to their citizens, but if, from time to time, representations were made in respect to individual communities where it was found that the burden was unduly onerous, the Federal Government would sympathetically consider each case upon its merits and determine whether or not, on the facts stated, it would be warranted in making a contribution to assist the provinces to discharge their normal responsibilities regarding medical and hospital care and treatment.

I intimated to the delegation that I would communicate with each of the provinces in the sense above indicated.

Yours faithfully,

(Signed) R. B. BENNETT

For the Heart

DIGIFOLINE

Tablets - Ampoules
Liquid

EACH form of Digifoline is of the same potency, uniformity and efficacy.

Digifoline is of the highest purity and is so standardized that the method of medication may be quickly and easily changed.

Physicians may confidently choose any or all forms of Digifoline, knowing it to be a dependable, yet economical digitalis product.



CORAMINE

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ADMINISTERED orally or parenterally, Coramine is a safe and effective cardio-respiratory stimulant.

Its action, though quickly manifest even after oral administration, is persistent, rendering the product suitable for use not only in emergencies but also where a prolonged effect is desired.

Coramine potentiates the action of Digifoline, and is often administered simultaneously.

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1900 St. Antoine St., Montreal

ODE TO THE GONOCOCCUS.

Oh, Thou! The source of every maiden's dread—
 Thou biscuit bug, a curse be on your head!
 Thou mortal foe of cupid: from behind
 Thou stab'st the pleasure seekers of mankind.

No pen of mine the horrors can describe
 That come to those who of thy draught imbibe:
 The burning heat of frequency, "the strain,"
 The fevered brow, the lancinating pain.

Beggars and Kings alike must share the fate
 That comes from playing where thy snipers wait;
 Which, once established in their quarters new,
 Their course, Hell-bent-for-business, they pursue.

So, boys and girls, the motto of this song
 Is "Be a virgin, and you can't go wrong!"
 For, once you slip, a clap will follow sure
 That seventeen like Mack may never cure.

ODE TO THE SPIROCHAETE.

These, the poetic strivings of a V. G. Hospital interne, show, we think, a decidedly imaginative pathological insight.

Thou thrice accursed spirochaete,
 The dread of every secret meet!
 With grim Satanic majesty,
 In fearful awe thou holdest me!
 In every spiral of thy frame
 Burns Hell's corruption in a flame.
 All mankind waits in awesome fear,
 While Science grimly views the smear;
 Men tremble like the Autumn leaf
 While Kahns await to spell their grief!
 For once established in a host
 All future hope for health is lost,
 And, poisoned by thy venom vile,
 They onward plod each weary mile.
 Some by the primary chancre fall,
 With sloughing glans and swollen ball;
 Some pass into the second stage
 And, tossed with fever, cursing rage
 At mucous patches, burning throats,
 In anguish at their crop of oats.
 Some cases even further hie
 To reach the stage of G. P. I.
 Where characters of record clean,
 Delight in doing things obscene.
 Their memory gone, their virtue fled,
 Far better these poor devils dead.

* * * *

Oh! Give me chancroids, clap or gleet,
 But spare me from the Spirochaete!

M. V. D.

The logo for Sulfarsenobenzol Billon is a dark rectangular box with a decorative border. The border consists of vertical lines on the left and right sides, and horizontal lines at the top and bottom. The text "SULFARSENOBENZOL" is written in a large, bold, sans-serif font across the top, and "BILLON" is written in a smaller, bold, sans-serif font centered below it.

SULFARSENOBENZOL
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A superior brand of Sulpharsphenamine

**For painless subcutaneous
treatment of Syphilis**

Perfectly tolerated, **Sulfarsenobenzol** is particularly indicated for treating children or whenever the intravenous method is not practicable.

Offered in gradual dosages of
from 0.005 Gm. to 0.96 Gm.

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Personal Interest Notes

DR. H. B. HAVEY of Stewiacke who was a patient recently at the Victoria General Hospital, Halifax, has returned home.

Doctor flew to girl patient at Pictou Island. On December 26th in response to an emergency call from Pictou Island, H. O. Madden of the New Glasgow Flying Club flew Dr. A. F. MacGregor of New Glasgow to within a few yards of where twelve year old Helen McCallum lay critically ill. The pilot landed his plane in a field near the McCallum home and within two hours the Doctor returned, reporting improvement in the child's condition.

Dr. and Mrs. G. W. T. Farish of Yarmouth visited Montreal during the holiday.

On Sunday evening, November 26th, friends of Dr. and Mrs. G. A. Dunn of Pictou called on them in the evening to congratulate them on the twentieth anniversary of their wedding day. A very pleasant evening was held in the rendering of sacred music.

Dr. Clarence Moriarty, son of Mr. and Mrs. P. F. Moriarty of Halifax, has recently undergone a serious operation in the United Memorial Johns Hopkins Hospital at Baltimore. Dr. Moriarty, a graduate of Dalhousie, is well known throughout the Province. Before his illness he was carrying on public health work with the State of Maryland at Annapolis. His wife, nee Dr. Angela McGee of Saint John, N. B., is a graduate of the Dental School of Dalhousie University. We are pleased to note that Dr. Moriarty has recovered sufficiently to return to his home at Baltimore.

Health Survey Plan assured at Kentville. Kentville, December 8. Health survey for Kentville school children, sponsored by the local V. O. N. Branch, is assured. In the seven hundred replies to the inquiry card sent out to parents, 60% have given their consent for a complete examination, including the tuberculin test of their children. Prediction is made that when parents who did not register full consent have an opportunity of noting the results in connection with the test the great majority will fall in line and that the final count will show nearer 100%.

The wedding occurred on November 25th at Portsmouth, New Hampshire, of Gertrude Blanche Hislop Rogers, daughter of Beatrice Rogers and the late Alan Charles Rogers, formerly of Halifax, to Dr. S. Harold Keshen of Halifax. Dr. and Mrs. Keshen have taken up residence in the Westminster Apartments, Halifax.

Mrs. M. A. Macaulay, wife of Dr. Macaulay of Halifax is making a splendid recovery following injuries received from a recent fall.

Ayerst DIGITALIS FOLIUM

DRY POWDER CAPSULES
 STABLE » ACCURATE » READILY ABSORBED
 TASTELESS » CONVENIENT » ECONOMICAL

★ To ensure the integrity of biological tests on Digitalis, all tests for this and other Ayerst biological products are made under the immediate supervision of Dr. A. Stanley Cook and his associates in the biological laboratories of Ayerst, McKenna & Harrison Limited, located at Montreal.

Ayerst Dry Powder Capsules Digitalis Folium contain powdered digitalis leaf of the *International Standard* and are tested on frogs by the method employed by the Laboratory of Hygiene of the Department of Pensions and

National Health, Ottawa. *Unlike tinctures of digitalis*, their clinical efficiency is assured for a period of several years when kept under normal storage conditions.

They are supplied in five strengths:

No. 311	equals	5 minims	Tincture of Digitalis	<i>Canadian Formulary</i>
No. 312	"	10	" " " "	" "
No. 313	"	15	" " " "	" "
No. 314	"	20	" " " "	" "
No. 315	"	30	" " " "	" "

Note: The contents of capsule No. 311 show the physiological potency of 1/2 grain (0.032 Gram) of Powdered Digitalis Leaf International Standard. The potency of the other capsules is relative.



Friends of Dr. E. O. Hallett of Weymouth will regret to learn that he is a patient at a hospital in the United States, where he has recently undergone a slight operation.

Halifax Quack Doctor Committed. Lunenburg, November 30. Frank McDonald, Halifax barber, charged with disguising himself as an eye specialist and charging Enos Dares \$987.00 to remove from his eye what police said was the skin of a hard boiled egg, was committed for trial here on November 29th. Dares said McDonald, charged with fraud and obtaining money under false pretences, represented himself as "Dr. McCumber, Montreal eye specialist."

Dr. D. MacDonald is President of the Cape Breton Medical Society. Dr. Dan MacDonald, of North Sydney, was elected President of the Cape Breton Medical Society at the Annual Meeting in the Nurses' Home of the City Hospital, Sydney, on December 14th. He succeeds Dr. Freeman O'Neil. Other officers elected were Vice-President, Dr. J. F. Macaulay, Sydney, and Dr. Eric Macdonald, Reserve, Secretary (re-elected). Executive Council, Dr. Malcolm Macaulay, Sydney; Dr. Nat. MacDonald, Sydney Mines; Dr. Dan McNeil, Glace Bay; Dr. Freeman O'Neil, Sydney; Dr. D. W. Archibald, Sydney Mines.

The BULLETIN has had inquiries from several of our fifth year students asking if we could find them work for the coming summer. If any of our physicians are planning holidays during the Summer months and would like some one to take their place during that time would they kindly let us know.

What Every Woman Doesn't Know—How to Give Cod Liver Oil.

Some authorities recommend that cod liver oil be given in the morning and at bed time so as to assure an appetite for the oil, while others prefer to give it after meals in order not to retard gastric secretions. If the mother will place the very young baby on her lap and hold the child's mouth open by gently pressing the cheeks together between her thumb and fingers while she administers the oil, all of it will be taken. The infant soon becomes accustomed to taking the oil without having its mouth held open. Mead's Newfoundland Cod Liver Oil, of minimum acidity and prepared from fresh healthy livers, is well tolerated by infants and children and is palatable without flavoring.

If given cold, cod liver oil has little taste, for the cold tends to paralyze momentarily the gustatory nerves. As any "taste" is largely a metallic one from the silver or silver-plated spoon (particularly if the plating is worn), a glass spoon has an advantage.

Mead's 10D Cod Liver Oil is made from Mead's Newfoundland Cod Liver Oil. In cases of fat intolerance the former has an advantage since it can be given in $\frac{1}{3}$ to $\frac{1}{2}$ the usual cod liver oil dosage.