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The Canada Lancet

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State Medicine.

Paper given by Dr. Emmerson before the Huron Medical Society in May, 1921.

The purpose in nationalizing the Medical profession is to give the best possible service to the public in the development of healthy men and women, in maintaining each individual in the State in the best possible health, and in giving the most skilful aid when sick or injured.

One factor will be much more extended powers and duties of Medical Health Officers. We do not purpose discussing the beneficial and far reaching results of the well directed work of Boards of Health, but will confine ourselves to that phase of State Medicine wherein medical and surgical aid is required in the treatment of the sick and injured.

The advantages which the injured and diseased have in the cities would be extended throughout the country. This would necessitate large and well equipped hospitals in convenient centres with smaller hospitals interspersed. There would be a full supply of specialists in all branches of medicine and surgery. For example the birth rate is fairly accurately known hence the number of obstetricians can be ascertained, these would be properly distributed. Women during their pregnancy would be under their supervision, the general practitioner acting as a sort of out house physician taking temperature, pulse, examining urine &c., and reporting to his chief who would advise as to the treatment to be carried out, and when the patient nears her time of accouchment she would be sent to the hospital for the specialist to treat. Eye injuries and diseases with the modifications necessary to their particular needs would be similarly dealt with under that line of specialists, also ear, nose and throat cases by their respective specialists. Likewise diseases of the skin; regarding these, the general practitioner would thank God that he had gotten rid of them and take courage. There would be the specialists in brain surgery and the specialists in rectal surgery although these two might be combined, the specialists in thoracic surgery, the specialists in abdominal surgery, in genito urinary surgery, in orthopoedic surgery, in plastic surgery, the gynecological specialists. After all the leading divisions had been specialized, then what is left could be given to another class or surgeons called general surgeons who would be of the mediocre variety because no man of ability would want to be called a general surgeon.

Then there is the field of medicine proper which is by far the larger. There would be the heart specialist, the lung specialist, the genito urinary specialist, the nerve specialist the alimentary specialist, the phsyconeurotic specialist, the specialist in women's diseases, the specialist in children's diseases, and a host of others.

Do not think we have over drawn the picture, it is rather otherwise. It is but a resume of that which is taking place in our large cities to-day, and in our greatest clinics of which the Mayo Co. is an example.

But what of the general practitioner? Well he will be somewhat of a nonentity. All serious cases will be withdrawn from his care and taken to the well equipped hospital, or if this cannot be done he will be out physician under orders from his chief. In surgery as surgeons now desire it and as they no doubt would have it, the general practitioner would be allowed to remove a thistle or a thorn, dress a cut if it is a slight one, because the surgery he does must be minor surgery and that very minor. He would likely be allowed to open a simple abscess, but not a rectal abscess, nor one of Bartholins glands. Circumcision would be deemed entirely beyond his skill. Recently we read a long article by one classing himself as a surgeon specialist who regarded circumcision as an operation requiring a great deal of skill, and described a technique the intricacies of which we would not fully comprehend but this might be accounted for by our belonging to that class called "general practitioners."

Now if the Medical profession were nationalized it would have to be made efficient, and the government in order to attempt this would be guided largely by those whom the laity regard as leaders in our profession. They assuredly would advise the system of specialists. The number necessary in each branch could be ascertained fairly well. There would also be a reserve number who could be rushed or sent to various points if there arose a surplus of work. They would also fix the number of general practitioners which would be a class very similar to that of the house staff of the present hospitals. They would receive their dutiful training in hospitals and then be distributed throughout the country.

Not only would the number in the profession be determined by the government but also their distribution. This would have one advantage over the present system in that the medical man would not have to sit on his doorstep enticing in patients, but being state paid he would not need to worry if having but little to do. This would be a happy condition as he would likely be able to buy coal or slate and pay his taxes, and as his salary would be known he would not require to report a bigger income than he received just to make the public believe he was doing a rushing business.

What will be the benefits or otherwise of the nationalization of the medical profession? Will it be for the welfare of the public, the advancement of the profession and to the best interest of the state.

The public would be cared for

without any direct remuneration by them as all expense would be borne by the state. There is quite a percentage of our people who would apply for advice or treatment for every trivial complaint in the hope of an opportunity to loaf. This class is of more value to the state and their homes under our present regime. The family physician will be of the past. He at the present is the confidante of many a patient. The family home life of a large part of his clientele is known by him fairly intimately. In their illnesses he knows the mental attitude of the various members of the family toward each other and hence can measure what effect this may have on recovery and how far he may be able to influence and so make all things aid in the restoration of his patient to health. How often do the kind and wise words of the family physician bring hope and comfort and encouragement to the sick wife and mother, and have more restorative properties than the drugs he administers. In State Medicine this would not be, the physician or surgeon then would have interest only in the disease or injury.

How many apparently very trivial things the family physician is consulted about in which the advice given prevents an illness that might cause serious consequence or end in death. Such consultations under State medicine would not be thought of.

In our present system families choose their physician and this is wise, and on the whole much more beneficial than having no say in who shall treat them.

Seventy-five per cent. of the ills we are called in to treat are better cared for than they would be under the State; and of the remaining twenty five per cent it is very doubtful if all in all they would be any better treated than as at present where the family physician having an interest in his patients, knowing their history and the incidents leading to the illness as well as its history calls to his aid the skill he deems best qualified to assist him in the occasional case that baffles his skill.

The more one compares State medicine with that now in vogue the more disadvantageous does it appear to the best interests and welfare of the public.

What would be the effect of nationalizing medicine on the Profession and on the State? The government would determine the number in the profession, and how many, and who would be allowed to study medicine. They would devise means likely through senior men in our profession what students are to be eye specialists, ear specialists, nose and throat specialists, who are to be abdominal surgeons, thoracic surgeons, brain surgeons, who would be obstetricians. Then there would be the various divisions in medicine proper, and in diseases of children, the dietitians, the pathologists, the research men, and a host of others, and lastly the poor general practitioner who would be the double of the son in the rich man's family of long ago who was given to the church. These men would be stationed by the State and would have no choice as to climate city, town or country, but might be fortunate enough to get to some of the favored spots such

as Prince Rupert, Moose Factory, the terminus of the Hudson Bay Railway, Nipigon with its ice in winter, mosquitoes and black flies in summer, Indians, half breeds and bedbugs the year round. The ward in Toronto, Montreal, Winnipeg, Vancouver and other large centres would likely be reserved for the general practitioner.

It would appear that in State Medicine the State would educate the profession. This is one boon as the students would not have the financial worries that some of us had and have never gotten rid of.

What is a man worth who has not a little of the spirit of independence? How much would a physician or surgeon have if he had no thought to give about the expense of his college course, no thought as to what branch he would specialize in, no choice as to where he would locate, no say as to what salary he would receive, simply follow orders.

Also the government would define his status as a citizen which would be entirely different from what it is now. You will have noticed how this is being carried out in Canada's National Railway regarding which Toronto Saturday Night made this remark—'When President Hanna of the Canadian National Railway refused to have anything to do with any board of arbitration in respect to his orders that no employee of the system can be actively engaged in politics and at the same time keep his job, he is on absolutely sound lines and the people of Canada as a whole will back him up.

The precedent long established that public servants must abstain from political activities is one that in the general good must be maintained. Why should the man in the service of the Government Railway be an exception to the rule which has held through many years. A fine nest Ottawa would be with thousands of Government employees messing in politics, and surely if a Government Railway employee has such a right then the Civil Service has the same right."

Can the physician made over into a civil servant be as efficient as in his private capacity. "Working for the Government means a loss of civil rights. A civil servant is set aside from political life as soon as he receives his appointment." "It may be a good theory when the service is a small one, and some such understanding is necessary to prevent the whole service from being made part of a partisan machine. When the service becomes so large as to embrace a large part of the population it is going to be disastrous to withdraw the whole number from all participation or open interest in public life. Your civil servant may not even make himself part of the body of public opinion by joining openly in political conversation. Should he venture out loud to disapprove strongly of any politician or any public policy he is marked for destruction sooner or later. That is bad for the country and for the individual it is worse. The civil servant is the servant of all the people. Afraid to criticise a single one of his many masters, owning himself the inferior of all real citizens."

"Citizenship is not the only loss incurred by the civil servant. There

is a loss of ambition with both the incentive and the opportunity to improve ones position. A technical expert given a government position may sometimes find the opportunity for more good work than he would find outside of it, but in all administrative and executive work there is a loss both of good work and of the power of training for it. Economy is one of the greatest principles in modern business and the government service is the last place to find economy, except in the matter of salaries in which the government is notoriously parsimonious. The atmosphere of endeavor is lacking one great stimulus in developing man's powers. The rewards for endeavor are lacking when the only principle of promotion that can be employed without undergoing the suspicion of political favoritism is length of service."

"From the national standpoint the withdrawal of men from citizenship becomes more dangerous by geometrical progression with the number withdrawn. We grant citizenship to many new comers, but ill qualified for it in our eagerness to broaden our political base and dangers to our public life are often feared on this account and not without justification. Surely then there is some lack of wisdom in taking away full citizenship from a great body of men already fully Canadianized by birth or by residence and probably rather superior to the general average of the country in education and intelligence." "There are positions in the civil service of Canada filled with distinction by distinguished men, men who are able to give the best of themselves to the work they are best suited to do. It would be ungracious to speak of the public employees of the country without acknowledging the services of such men, or to criticise the civil service as a whole without stipulating that it is the system and not the men that is at fault. With every allowance the fact remains that in the government service a man is deprived of civil rights, of the opportunity and the incentive to do effective work, of the stimulus of ambition, of the chance of anything but the most meagre salary, and that as a rule the results in efficiency are just what might be expected."

We are forced to conclude that State Medicine would not be an improvement for the welfare of the public. It would not be for the advancement of the profession, nor would it be to the best interest of the State.

THE SURE WAY

to improve the CANADA LANCET and make it more valuable to the Medical Profession which it serves is to write regularly your experiences and your ideas on subjects of interest to the Profession.

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Perhaps you are helped by this issue. Will you co-operate to build up an up-to-the-minute medical journal for Canada.

Complete Prolapse of the Rectum

Charles J. Drueck, M. D., Chicago

Professor of Rectal Diseases, Post Graduate Medical School and Hospital.

Complete prolapse of the rectum consists in the descent of all of the coats and is far more serious a condition than the partial variety because of the individualism which it induces as well as the complications which are ever present. In this variety the mucous membrane is in its normal relation to the other coats of the bowel but the entire rectum is protruded from the anus and has lost its normal relationship to the other pelvic viscera.

Two different types of pathologic change contribute to produce procidentia:—

1. Extreme mobility of the rectum and the elongation of its supports may be the result of imperfect prenatal fixation or of traumatic conditions, either of which permit of constant dragging on the rectal attachments and supports. The intra-abdominal pressure exerted at stool is applied to the recto-sacral ligaments.

The uterus and rectum have a common means of suspension; therefore any cause bringing about the fall of one endangers the fixidity of the other. Hysterectomy deprives the rectum of the anterior support afforded it normally by the uterus. The weakening of the pelvic floor favors the prolapse of both of these organs.

The pelvic cavity is funnel shaped and from its lower opening protrudes the rectum held in place by the peri-rectal areolar tissue and fascia, the levator ani, the recto-coccygei, and the two sphincter muscles which are interleaved or woven into the pelvic fascia.

The pelvic fascia is a continuation of the lumbar, iliac and transversalis fasciae and supports the abdominal contents from below. It is attached to the bony framework of the pelvis; in front to the inner surface of the pubic bone; on the sides, to the ilio-pectineal line, posteriorly, just above the attachment of the pyriformis, and to the anterior surface of the sacrum; and thus it binds the pelvic organs firmly together. From this level the fascia dips down between the pelvic organs forming the obturator fascia and the recto vesical fascia, covering the levator muscle and also forming the deep layer of the triangular ligament. These structures form the true pelvic floor, but from these are projected extensions between and about all the pelvic organs which become accessory ligaments of these organs. The true pelvic floor is a fixed structure, but the fascial branches between these organs are suspensory stays allowing considerable play. It is these rectal stays which offer the resistance during the straining at stool which is necessary to prevent displacement of the rectum. When these stays become flabby from repeated or excessive stretching, they lose their contractile power and the organ they support drops away. A lacerated perineum destroys the fascia holding the rectum to the levator ani, and the powerful intra-rectal pressure soon pushes the rectal wall into the vaginal outlet. The pro-

trusion in turn tends to further relax the musculo-fibrous structures.

2. In other cases a defect in the pelvic fascia permits a hernia of the pelvic bowel. This defect may sometimes be developmental.

In early embroynic life the peritoneal pouch reaches almost to the perineum. Later it recedes higher and if this process stops early the cul-de-sac of Douglas will be deeper than in normal. Thus we may have congenital malformation of the sac as one of the factors in the origin of the hernia. If there is also a developmental defect in the transversalis fascia it requires but little increased intra-abdominal pressure to drive the peritoneum as a wedge along the prolongation of the transversals fascia. This is the incipient stage of prolapse.

The peritoneal covering of the anterior wall of the rectum is very adherent to the deeper coats. The levator ani muscle and the very dense fascia on its lower surface also constitute a firm support to the perineal body and prevent a downward progression of the hernia. The line of least resistance seems to be through the muscular wall of the rectum, thus permitting the hernial development. The hernia now drives backward until it meets the resistance of the sacrum and coccyx when it is deflected downward through the rectal lumen, ultimately forcing the sphincters and appearing externally.

In every case presented, the condition of the sigmoid, the levator muscle and the depth of the cul-de-sac must be considered. An abnormally deep cul-de-sac acts as a pocket for the intestines which by their pneumatic pressure pry apart the musculature. In this manner whenever the protrusion is two inches or more in length we may anticipate a fold of peritoneum, a coil of small intestine, an ovary or a part of the bladder wall to be included.

Several factors may contribute to the development of the prolapse and in the case at hand a combination of these may be found. Complete prolapse usually comes on slowly through long continued action of the primary cause, but in either children or adults it may come on suddenly as a result of severe straining during heavy lifting or as a result of a crushing accident or fall.

It may arise from tumor or stricture high in the rectum which causes persistent peristalsis or straining at stool. Ordinarily about three to six inches may appear although the whole colon and even part of the small intestine has been reported to protrude. Tillman cites a prolapse as large as a child's head.

When protrusion has taken place suddenly it may be constricted by the sphincter muscle and its reduction be difficult.

Three types or degrees of complete prolapse are usually described. The first degree closely resembles the incomplete prolapse beginning at the anal margin. Its external surface is continuous with the skin surrounding this aperture and the prolapse involves the anal canal together with a variable portion of the rectum.

In the second degree the prolapse begins at a point above the anus and the rectum is invaginated through the anal canal, which latter structure remains in posi-

tion while the rectum protrudes externally. The walls of the canal are not here involved.

In the third degree some portion of the sigmoid or colon is invaginated into the rectum although it may not appear at the anus.

ETIOLOGY

First Degree—This variety of prolapse results from the same class of causes as the procidentia mucosae, and it is frequently a sequence of the latter. The distinguishing feature of this degree of prolapse is that the mucus folds which run up and down in the incomplete variety extend in a circular direction in the complete types and surround the prolapse in irregular crescentic folds.

The second and third degrees of prolapse represent the same character of pathology although the third type occurs higher in the bowel. Many factors may contribute to bring about prolapse such as elongation of the mesignoid, a relaxation of the sigmoid above the level of the prolapse, an abnormally deep cul-de-sac into which the small intestines drop and by continued pneumatic pressure gradually work the levator ani and the pelvic floor away thus allowing the rectum to appear at the anus.

In this type the rectum invaginates through the anal canal and protrudes from the orifice, thus leaving a sulcus between the protruding rectal mucosa and the anal margin into which can be introduced a probe or sometimes the tip of the finger.

SYMPTOMS

The symptoms of complete prolapse are much the same as those of the incomplete type. The complete prolapse begins within the rectum and protrudes through the anal orifice, thus leaving a sulcus between the prolapsing gut and the anal margin. The differentiating feature of complete prolapse of small extent from an incomplete one of the same size is that the external surface of the protruding tumor is not continuous with the anal skin margin. There is a sulcus between the prolapse and the anal margin which is not found in the incomplete prolapse.

The protrusion is thick, firm and pyriform in shape; and when not more than three inches are present, the prolapse will extend straight out at right angle to the buttock with a slit-like orifice in the lower end. When more than this appears traction upon the mesorectum draws the tumor backward toward the coccyx and the orifice will be on the posterior surface. In exaggerated cases where the mesorectum and mesodigmoid are both dragged upon, the prolapse may make two or three corkscrew circuits. Sometimes in females the traction is forward because of vaginal attachments.

In older cases a hypertrophy of the exposed tissue occurs. All of the coats of the bowel are endematous and swollen and often ulcerated. The mucus membrane is thick, dense and leathery in structure in the frequently prolapsed parts.

The surface of the mucus membrane is marked with circular furrows. The submucus areolar tissues are infiltrated with a hyaline substance, and the muscular layers are hypertrophied. The ex-

truded part is therefore enlarged not only by edema and congestion but also by the development of new structures. Therefore, the prolapse does not recede to its normal size when replaced, it is often too large to be retained, and descends the next time the bowels move. In old or extreme cases replacement is difficult and painful, although gradually the anus becomes patulous and the sphincter so paralyzed that each time the sufferer defectates or even moves about, the mass protrudes and makes life a burden. The bowel is abnormally increased in size, and too large for its proper position within the pelvis, and although it may be reduced it will not remain so because the tenesmus set up by its presence expels it promptly. In some instances the mucous membrane is eroded and granular and easily bleeds. In such cases the odor of the sloughing tissues may simulate malignant disease. A prolapse that has protruded for some time is often accompanied with an oozing hemorrhage, which require astringents to control. There is a copious discharge of glairy mucus which is often blood stained.

In children the procidentia occurs only at stool, but in aged persons with relaxed sphincters it may be down all the time. Constipation is the rule unless excoriation has occurred, when a teasing diarrhoea may be present. In either instance bloody and mucous discharges are present, and later fecal incontinence comes on. Pain is complained of only when there is ulceration of the prolapse or when spasm of the sphincters occurs which constricts the prolapsed bowel. Strangulation is present only in young and robust persons and is rare in infants or the aged. When it does occur it may be only temporary, but if it continues, ulceration and gangrene will follow which may terminate fatally if the peritoneum is involved. When the lower part of the rectum alone is involved in the gangrene, a spontaneous cure may take place, but by the separation of the protrusion and the resulting cicatrix a stricture is finally produced which leaves the patient in a more deplorable condition than before.

COMPLICATIONS

Complications are prone to arise with the involvement of the peritoneal coat, for it is likely to carry down with it a loop of small intestine, an ovary or the bladder wall. When these organs are brought down, they are usually detected by touch and are generally found in the anterior part of the tumor. The intestine slips away from between the fingers with a gurgling sound due to the contained gas, or sometimes percussion demonstrates it by resonance. In the early stage the loops of the bowel are contained only in the anterior part. But if the protrusion is large the loops may wholly surround the prolapsed bowel, except at the mesenteric attachment. In practise, if the buttocks are raised, the hernia usually recedes with a gurgling sound, and the prolapse may then be easily reduced. Adhesion between the loop of the small bowel and the prolapsed rectum may occur and strangulation result because the hernia cannot be reduced, or if the strangulation is not promptly relieved, death ensues from perforation of the bowel and

peritonitis. If an ovary is included in the prolapse, pressure on it causes a faint sickening feeling, if the bladder is engaged it is demonstrated by introducing a sound through the urethra. Each condition constitutes a true hernia of the prolapse and must be immediately replaced, if possible, because spontaneous rupture of the rectal wall or of the peritonitis cul-de-sac and visceration of the intestines has occurred and of course adds a most serious complication. Usually there is no sulcus or depressed line visible at the peritoneal or bladder junction with the bowel, and so there is no way of determining by inspection the presence or absence of peritoneum or bladder in the prolapse.

DIAGNOSIS

The differential diagnosis between the partial and the complete is often important. Prolapse of the mucous membrane alone is usually recent, the tumor is small sized, thin and soft to the touch and the folds radiate from the orifice which is circular and patulous. When the deeper coats are involved the case is usually of long standing, the tumor is large and conical in shape, and its walls are thick and firm. The opening into the bowel is slitlike and usually points backward owing to the traction of the mesocolon, or points forward because of the vaginal attachments.

Hemorrhoids or neoplasms of the rectum which prolapse are differentiated by their irregular and lobulated shape and by finding other parts of the rectal circumference remaining in situ. Excoriation and hypertrophy resulting from the discharge may simulate epithelioma and may be differentiated only by a microscopical examination.

PROLAPSE OF THE UPPER PORTION OF THE RECTUM INTO THE LOWER (INVAGINATION)

By prolapse of the third degree is understood intussusception of the upper rectum, sigmoid or colon into the lower rectum or rectal ampulla. It is a true intussusception and may involve any part of the large bowel even to the cecum; the orifice of the appendix has been seen beside the included bowel. It differs from the ordinary type of intestinal intussusception in that it does not cause complete obstruction or strangulation. Also the approximating peritoneal coats do not adhere as they do in the intestinal intussusception.

In the previous types of prolapse the dislodged tissues protrude from the anus, but in this form the upper part slips into (telescopes) the power part, the whole mass remaining within the pelvis. The sphincters and anal orifice remain normal. Only in extreme instances does the bowel protrude from the anus. When it does, it appears as a cylindrical tumor covered with a dark red, hyperemic mucous membrane. There is no pain or soreness at the anus, nor any sensation of protrusion at the anus.

SYMPTOMS

The symptoms of intussusception of the rectum or sigmoid are ill defined, because the rectum is capable of great distention in its lower portion. The invagination

does not cause complete obstruction as in ordinary invagination of other portions of the bowel, nor do the peritoneal coats or the invaginated portion become adherent and fixed as they do in the upper portion of the bowel.

There is usually a history of protracted constipation and later an irregular diarrhoea accompanied with tenesmus, straining and a feeling of incomplete defecation. Laxatives are not effective, but much relief is obtained with enemas.

The liquid of the clyster lifts up the bowel from below and stimulates reverse peristalsis, thus disengaging the invaginated portion.

The immediate effect of this intussusception is obstruction of the bowels, but this is seldom complete because the feces are forced through by the increased contraction of the healthy bowel. The first symptom of the constriction is a sharp pain developing suddenly. It may pass off in a few hours to return again or it may continue from its onset. Vomiting sometimes occurs but not always, and if it does it is sometimes relieved by pressure. Abdominal tenderness may even be absent in some cases. The presence of fecal vomiting indicates complete obstruction regardless of the part of the bowel involved. A heavy dragging pain in the sacrum and radiating down the thighs or to the perineum is usual. Dysuria also occurs and the case may be mistaken for ovarian or bladder disease. A discharge of clear mucus, later becoming tinged with blood, is present as the friction and irritation produces ulceration. If the constriction is severe enough, the prolapsed portion sloughs off and a circular cicatrix is left. Thus nature attempts to remedy the trouble, although the scar may produce an annular stricture. Sloughing frequently takes place after the first week and usually within three weeks, although it may occur much later. Death results in about one-half of the cases where spontaneous separation occurs, and may be due to one of several causes. The local peritonitis which unites the bowel may become general or the ensheathing portion, through ulceration and perforation may allow extravasation of feces. Perforation may occur at any weak point of union. On palpation, a tumor may be felt and may be characteristic although sometimes obscured by thick abdominal walls or distention of gases. The tumor when found is cylindrical and moveable, even changing its position at times. Compared with obstruction of the upper bowels, intussusception of the colon or rectum is more chronic, less painful, diarrhea is more pronounced, or the evacuations are larger, and the vomiting is variable. Such a condition may continue for weeks and death result from exhaustion or a general peritonitis.

Palpation or manipulation of the prolapse will often excite gurgling of the gas in the loops of small bowel which fill the anterior part of the prolapse. Percussion here will give a typanitic note while the posterior half is dull on percussion. This condition is not found in the incomplete variety of prolapses, where only the mucous membrane is detached.

When the prolapse has been reduced a careful digital examination will note a laxity of all the

rectal muscles and on palpation of the anterior rectal wall a distinct impulse will be observed on coughing as may be demonstrated in any hernia.

The introduced finger may feel the sulcus between the invaginated and invaginating parts. If beyond the reach of the fingers a probe may be used through a seculum. The examination for this purpose should be conducted with the patient upon his side and not in the knee shoulder position, and directed to strain down forcibly from time to time.

When the sulcus is not felt the case must be differentiated from volvulus, stricture, internal hernia, pressure on the bowel of outside tumors, and obstruction due to biliary calculi, foreign bodies or impacted feces. These conditions may be readily distinguished by remembering that an acute onset is due to invagination, volvulus or internal hernia. The vomiting remains bilious and not fecal as in perforation and peritonitis, tympanites is less, and the patient voids gas and feces. The temperature is raised in peritonitis and normal in obstruction. Invagination produces partial occlusion, moderate tympanities, bloody stools, tenesmus and palable tumor, Volvulus may have a history of previous peritonitis or the story of an old hernia that has not come down.

The Hemorrhages in the New-born.

By J. R. LOSEE, M. D.
New York.

Pathologist to the New York Lying-in Hospital.

The following remarks refer entirely to the more serious hemorrhages in the new-born and no mention will be made of the hemorrhages associated with asphyxia. Of those cases where the life of the infant is often in danger we have for our consideration the so-called idiopathic hemorrhage and hemorrhage due to injury. These babies are not suffering from hemophilia, but their condition is peculiar to the first few days of life, and whereas in the spontaneous variety we are ignorant of the cause I believe that the hemorrhage persists because the hematopoietic system is not complete when born and their blood does not contain the necessary substances to promote clotting. This condition is present in both males and females and several have been seen from one to two years after birth without any history of a recurrence. In a large series of autopsies I have observed that the more premature the infant the greater the danger of hemorrhage. I am convinced after the clinical observation of many of these cases in the past few years that regardless of the cause the treatment is the same for both types.

On account of the difficulty in obtaining a sufficient quantity of blood from an infant it is impossible to carry out the more accurate methods for determining the coagulation time, the prothrombin time and other investigations

necessary for a complete study of the fluid. Observers have reported both a prolonged coagulation time and bleeding time in some cases, in others the same observers have found a prolonged bleeding time and a normal coagulation time, and there is a third type of case where neither the coagulation time nor the bleeding time was increased. Hurwitz has placed this disease in that group which shows lack of prothrombin, yet we have seen cases manifest typical symptoms without a delayed coagulation time. The prothrombin time in three cases that returned after one year was normal. It was not estimated during the course of the disease. Rodda has reported two cases with both a delayed coagulation time and bleeding time that developed definite symptoms of hemorrhagic disease and two others with a delayed coagulation time and a normal bleeding time that showed no signs of it. It is apparent, therefore, that these cases do not all lack the same element in the blood and it is quite impossible to classify them on that basis.

Hemorrhage is the chief symptom observed. It may be mild, occur in any tissue, but it is most frequently observed in the subcutaneous tissues, the gastrointestinal tract, from the umbilicus and in the central nervous system. It has been noticed that after an extensive hemorrhage in one system a very slight or no hemorrhage is found in the others. These symptoms generally occur before the fifth day and they are sometimes associated with fever, absence of nursing and the general appearance of the infant is suggestive that it is not doing well. In some the entire subcutaneous tissues of the back are infiltrated with blood, in others there is an extensive hemorrhage beneath the dura mater, in others nearly all the blood in the infant's body is in a cephalohematoma and I have seen cases of gastrointestinal hemorrhage where a complete blood cast of the small intestine was observed at autopsy.

Inasmuch as this is a constitutional disease there is little advantage gained and considerable time wasted by applying local measures, even in those cases where it is possible to do so by reason of an external bleeding point, and, in spite of the numerous articles on the value of whole blood therapy, the majority of these cases continue to be treated with horse serum, thromboplastin, and calcium. It has been shown by Hurwitz' that old serum retards rather than hastens the clotting of blood both in normal animals and in those suffering from hemorrhagic disease. He also attributes little value to the use of fresh serum in this condition, and says after carefully controlled experiments that it has little effect on the coagulability of the blood. On the contrary our experience at the New York Lying-In Hospital has shown very good results with fresh normal human serum ever since it was introduced by Dr. J. E. Welch ten years ago. There are certain cases in which even serum or whole blood in large amounts subcutaneously will not control the hemorrhage and in these we must resort to whole blood intravenously. With this method we not only supply the therapeutic agent necessary to check the bleeding in

any part of the body, but also overcome the acute anemia which is threatening life. Even after introducing blood directly into the circulation of these babies I have seen one in a series of sixteen cases recur after twenty-four hours. In this case we were dealing with a type which not only did not have the substances to produce clotting but possibly had sufficient anti-clotting substance in its blood to neutralize that introduced, or it may be that in the cases which do well the introduction of blood stimulates the production of the clotting substances, and in those in which bleeding recurs it does not produce such stimulation. It is our routine at the hospital to treat these cases early with fresh normal human serum or whole blood subcutaneously, but if the hemorrhage is not controlled by this method transfusion is performed and is followed by subcutaneous injections of serum for two or three days in the endeavor to avoid a recurrence. If the condition should recur and life be endangered another transfusion from a different donor is indicated In those cases where the initial symptom is a profuse hemorrhage and the general condition of the patient is grave or if the case has been admitted after bleeding sometimes at home radical treatment is at once instituted.

In the consideration of blood transfusion in these cases the question is repeatedly asked if it is necessary to make the compatibility tests on the infant. The presence of isoagglutinins in the serum and receptors in the red corpuscles of the infant have been very thoroughly observed by Happ. He has concluded after making 67 tests on 49 infants, from one to twenty-one days old, that at birth the group is established in very few instances; that the serum of a newly born infant may contain no agglutinins and his corpuscles be inagglutinable; that the corpuscles become agglutinable before agglutinin is present in the serum; that is only 7 of the 49 infants tested was agglutinin present in the serum, though the corpuscles were agglutinated in 32 cases and that it was possible to place only 8 of the 49 cases tested into a definite group. From his observations he says that he has not seen the serum give up an agglutinin or cells give up receptors which have once been acquired, and he does not believe that this occurs. He says that it is possible for an infant to acquire further agglutinins in his corpuscles and serum as he grows older, which places him in a different group from the one he apparently belonged to in the first few days of life. In twenty-three cases the grouping of the mother we determined simultaneously with that of the infant and on account of the difference between the agglutination reactions of the mother and child he concluded that it was not a safe practice to transfuse the infant from its mother without making the preliminary test.

I have been interested for some time in the demonstration of agglutinin and receptors in the blood of babies from one to ten days old because it has been in this type of case that I have found its practical application most valuable. The Moss method was followed in the same way as we use it for adults and the sera of one hundred newborns were examined. Of this

number 32 showed the presence of agglutinins for II or III cells or for both. Six contained agglutinins for II cells, 12 for III cells, and 14 had agglutinins for both. Therefore, according to Happ, fourteen of these cases could be permanently classified as belonging to type IV, but inasmuch as the other two classes may develop agglutinins later for either III or II cells respectively, it was impossible to place them in a definite group. The corpuscles of 134 babies were examined for the presence of receptors and 15 contained receptors for agglutinins in serum II, 50 had receptors for the agglutinins in serum III, and one held receptors for both. It was possible to place only one in a definite group from this series of examinations on account of the possibility of the other 65 forming receptors for III and II agglutinins. It is true, however, that only one or two of this number would do this on account of the low percentage of cases in type I. I concluded, therefore, that, inasmuch as 32 per cent. of one series contained agglutinins and 50 per cent. of another series contained cell receptors, it was advisable always to make our preliminary compatibility tests regardless of the fact that many of these agglutinins are weak and would be diluted somewhat in the process of transfusion.

Both modified and unmodified blood have been used in this series of cases with equally good results. The blood was injected into one of the superficial veins in the cubital fossa of the arm after cutting down and this was accomplished even after cases had been almost completely exsanguinated. I am well aware that the longitudinal sinus route is the most popular at the present time for all varieties of intravenous therapy, but I am certain that it is not without its dangers in a definite proportion of cases. I have been successful in placing the blood beneath the dura on more than one occasion and have observed others supposed to be proficient in the art do likewise. The final results of such a procedure will not be apparent until early childhood. From 40 to 120 c.c. of blood have been injected, depending upon whether it is done for the therapeutic effect or whether we are also treating the anemia produced by the loss of blood. In cases where external bleeding is present, as from the cord or skin, the result is very apparent, for in most cases the bleeding stopped before the transfusion was completed. A reaction, if present, in these cases is manifested by a slight rise in temperature from one-half to two hours afterward, which promptly subsides and the general condition is noticeably improved.

The following is a brief clinical history of sixteen cases by blood transfusion. Eight of these had been treated with normal human serum without any result and in one the hemorrhage recurred after blood transfusion. There are seven cases of subcutaneous hemorrhage three of cerebral hemorrhage following operative delivery, three of hemorrhage from the ubilicus, two with gastro-intestinal hemorrhage, and one from the wound following circumcision. Two of the babies with cerebral hemorrhage have been reported by their attending physician to be well one year after birth. No neurological examination has been made on these

cases however.

Baby G. delivered by high forceps and the following day a bilateral cephalohematoma was observed in the occipital region. During the following forty-eight hours numerous subcutaneous hemorrhages were observed over the back and face and there were symptoms of cerebral irritation. Two hundred and fifty c.c. of normal human serum were injected subcutaneously during the first two days but as the hematomata were increasing in size and as the general condition of the child was worse seventy-five c.c. of blood were injected into the arm vein. Following the transfusion the hematomata gradually became smaller, the general condition improved, nursing was reestablished and no more subcutaneous hemorrhages were noticed. Its weight at birth was 4,170 grams, when transfused it was 3,820 grams and on the eleventh day it was 4,005 grams. The child was discharged in good condition on the twenty-first day. The physician reported twelve months later that the baby had been well since leaving the hospital and that it weighs twenty-two pounds.

Baby G. Was circumsized on the ninth day by a rabbi. It was admitted to the hospital bleeding from operative wound and all local attempts to control the hemorrh- were unsuccessful. At two a. m. the following morning the child was pale, the general condition was poor, and transfusion was performed. One hundred and twenty c. c. of citrated blood was injected and the bleeding stopped at once. The patient was discharged four days after transfusion. The mother reported to the hospital with the baby fifteen months later and said that the baby was well and that there had been no recurrence of the hemorrhage.

Baby B. Was delivered May 26 after a long labor by a medium forceps operation. On the second day it began to show symptoms of cerebral irritation. On the third day there was some hemorrhage observed beneath the scalp which extended downwards into the neck, at which time the temperature was 99.8° and the general conditon was bad. Transfusion was done on the third day and sixty-five c.c. of citrated blood was injected. The following day the condition improved and the baby was discharged two weeks after delivery weighing 3,440 grams. It weighed 3,100 grams at birth. The physician reported eleven months later that the infant had been well since leaving the hospital.

Baby D. Was a difficult forceps delivery and definite symptoms of cerebral hemorrhage manifested by tense fontanelles, muscle spasm and convulsions developed during the first twenty-four hours. For the following thirty-six hours it was treated with normal human serum, at the end of which time it bled from the mouth, stomach and rectum. General condition became worse, transfusion was performed on the fourth day and eighty c.c. of citrated blood was injected. The coagulation time was twenty-five minutes before transfusion and four minutes following the transfusion. The baby was discharged well on the twelfth day.

Baby G. Was delivered March 1 by forceps. Extensive subcutaneous hemorrhages were obser-

ved in the back and neck on the third day. Serum was immediately administered early in the morning but the general condition of the infant grew rapidly worse. It was transfused with sixty c.c. of unmodified blood. The temperature on the morning of the transfusion was 101° and after transfusion it was normal. Sixty c.c. of serum was given in two doses on two successive days following transfusion. Its weight at birth was 3,150 grams and it was discharged on March 20 in good condition with its birth weight. The mother reported that fourteen months later that the baby had been well since leaving the hospital.

Baby M was a normal delivery Hemorrhage began in the first twenty-four hours and it was very extensive from the mouth and rectum. Three hours from the time the first bleeding was observed transfusion was performed and one hundred c.c. of citrated blood was given. The following day twenty-five c.c. of serum was given subcutaneously. The baby lost little weight and was discharged on the tenth day in good condition. It was seen fifteen months later and the mother reports that it has been well since leaving the hospital.

Baby A. Was admitted to the hospital four days post partum with extensive hemorrhage from the umbilicus and marked anaemia secondary to this hemorrhage. It was at once transfused with one hundred c.c. of citrated blood and the hemorrhage from the cord ceased as soon as transfusion was completed. The cord came off without any further hemorrhage on the eighth day. The baby was discharged on the tenth day weighing 3,500 grams which weight it had when admitted. The infant also showed some jaundice on admission but this had almost completely disappeared when discharged.

Baby A. Was deliverey by low forceps February 29. There was a small forceps abrasion on the forehead. The infant bled slowly from this abrasion and on the first and second days numerous increasing subcutaneous hemorrhages were observed in the neck, back, and face. The baby was transfused on the afternoon of the second day with sixty c.c. of citrated blood. Bleeding ceased while transfusion was going on. Twenty-five c.c. of normal human serum was injected on each of the following days for two doses. The baby continued to do well and was discharged from the hospital seventeen days after birth in good condition. A report twelve months later from the mother showed that the baby was well and had no recurrence of its condition.

Baby K. Was a normal delivery on March 2. On March 3 it vomited considerable fresh blood. Two hundred c.c. of human serum was given on the third and fourth day but the hemorrhage continued from the stomach. On the fifth day seventy-five c.c. of citrated blood was given intravenously. It ceased bleeding. continued to nurse, and was discharged sixteen days postpartum in good condition.

Baby H., Male, colored, presented a cephalohematoma and multiple subcutaneous hemorrhages on the second day following a normal delivery. The general condition of the infant was poor and

it was transfused at once with one hundred and fifteen c.c. of citrated blood. Twenty c.c. of human serum was given on each of the following two days. The infant weighed 3,780 grams at birth and was discharged on the fourteenth day weighing 3,910 grams. The mother one year later states that the baby died when seven months old from bronchopneumonia and up to that time there had been no recurrence of the hemorrhage.

Baby F Was a normal delivery showed numerous subcutaneous hemorrhages on the sixth day which continued to increase in spite of treatment with human serum. It was transfused with eighty c.c. of blood by the citrate method on the eighth day and it was discharged on the twelfth day in good condition.

Baby R. Was a normal delivery and six days later it began to bleed from the umbilicus. Forty-eight hours afterwards it showed marked anemia, some jaundice and the general condition was bad. It was transfused at this time with 100 c.c. of citrated blood. The baby did very well on the following day but on the second day it began to develop symptoms of cerebral hemorrhage. Subcutaneous injections of whole blood were administered at that time and were repeated, but in spite of this treatment the child died four days after transfusion from cerebral hemorrhage and anemia.

Baby W. Was a normal delivery and developed a large cephalohematoma which increased in size regardless of treatment by normal human serum for six days. The general condition of the baby grew worse and it was transfused with eighty c.c. of citrated blood. Normal human serum was injected subcutaneously after transfusion. It was discharged on the tenth day. Five months later the baby was in good condition and gave no history of a recurrence.

Baby K. Began to bleed ten days postpartum from the umbilical stump. It was treated with normal human serum for twelve hours but the general condition grew worse and it was transfused at once with eighty c.c. of unmodified blood. The bleeding stopped and the infant was discharged in three days. The baby returned two months later in good condition.

Baby D. was a colored male infant and showed an extensive subcutaneous hemorrhage in the back on the second day. It was very anemic and sixty c.c. of citrated blood was given on the third day by transfusion. There was some febrile reaction two hours after transfusion. Baby was discharged eleven days postpartum.

Baby S. Presented a large cephalohematoma which gradually increased in size until the ninth day. There were also some small subcutaneouss hemorrhages. It was markedly anemic and the general condition was poor. It was transfused with one hundred c.c. of citrated blood after it had been treated with human serum for two days. The hematoma became smaller and the patient was discharged eighteen days postpartum.

Conclusions.—1. There is no definite etiology for the spontaneous hemorrhages of the new born, but both in this type and in the traumatic type bleeding persists because the blood system is not

complete at birth. The addition of normal adult blood is rational therapeutics because it supplies the substances that are necessary to promote clotting.

2. The blood of both the infant and the donor must be examined for isoagglutinin before transfusion, with the same precision that is customary in transfusing an adult.

3. Sixteen cases of serious hemorrhage in the newborn have been reported with one death, and whereas in a large series of cases there would still be a definite mortality, the former percentage has been greatly reduced by the intravenous administration of whole blood.

Cheque Given for $1,200 For New Laboratory.

A useful and generous gift, and one which will mark another forward step in public health work here, was made to the City Health Department by George and R. S. McLaughlin. The gift is a cheque for $1,200, for the establishment of a public health laboratory in Oshawa. It was made through Dr. T. W. G. McKay, M. O. H.

BOOK REVIEWS.

1920 Collected Papers of the Mayo Clinic, Rochester, Minn. Octavo of 1392 pages, 446 illustrations. Philadelphia and London W. B. Saunders Company. Cloth $12.00 net.

W. B. SAUNDERS COMPANY
Philadelphia London

Ringworm by

John P. Turner, M. D.

Introduction

It gives me pleasure to state that the treatment of ringworm of the scalp devised by Dr. John P. Turner has proven remarkably efficacious in his hands. In the year 1913 the Reynolds Public School, Philadelphia, with a population of six hundred children was badly infested with ringworm. About eighty cases were discovered, of which at least one-half were ringworm of the scalp. In view of the obstinate nature of the latter affection, the proper conduct of the school was a serious problem. Dr. Turner consented to undertake the treatment of these cases in connection with his work as school medical inspector and effected a complete cure—a remarkable achievement deserving of medical notice.

Walter S. Cornell, M. D.

Director Medical Inspection of Public Schools of Philadelphia, Penna.

F. A. Davis, Company, Philadelphia. Price $1.00 net.

Cancer and its Non-Surgical Treatment—By L. Duncan Bulkey, A. M., M. D.

Senior Physician to the New York Skin and Cancer Hospital; Member, American Association for Cancer Research.

The aim of this book has been to establish on firm scientific grounds the proofs of the constitutional nature of cancer, now so widely accepted, and to illustrate freely the value of this thesis by successful cases.

It makes a study of cancer in all its aspects, Pathologically, Bio-Chemically, and Therapeutically, except as to Operative Surgery.

Press Notices

"The most interesting and suggestive section of the book is the one on treatment. It should be read without prejudice, and if so read, it cannot but give food for thought."—Medical Record.

"No matter if you do not agree with Bulkley, read what he has to say, for he bases his remarks upon the experience of years, and he not you, may be right."—Western Medical Times.

"It were well for every surgeon dealing with cancer, to read and ponder over this work and apply its teachings in his daily practice."—New York Medical Journal.

William Wood & Co, 51 Fifth Ave, New York.

History of Medicine, with Medical Chronology, Suggestions for Study and Bibliographic Data, By Fielding H. Garrison, M. D., Lt.-Colonel, Medical Corps, U. S. Army, Surgeon General's Office, Washington, D. C. Third Edition Revised and Enlarged. Octavo of 942 pages with 257 portraits. W. B. Saunders Company, Philadelphia and London, 1921. Cloth, $10.00 net.

Published in 1913, this book saw its second edition shortly before our entry into the European War; the issue of the present edition, at the customary three years interval specified in the publishers' contract, has been delayed by the pressure of the writer's military and official duties. By courteous agreement of the publishers no subsequent revision will be made for some years to come, and for necessary and sufficient reasons. As compared with a treatise on practice of medicine or any of its branches, a history of medicine is, in the nature of things, a stationary product, dealing essentially with the past, with things that have happened, If the author of such a work has succeeded in stating the facts in their true relations, if he has reason to believe that his views of things are, in the main, correct and expressed with sufficient clarity, he will not wish to make many changes, since super-added and inserted matter will, in a series of editions, destroy the freshness and individuality of any book, giving it a somewhat medieval character, through excess of overlaid material. This method of composition, with which, it need hardly be said, the writer has no sympathy whatever was once likened by Henry James to a heavy suit of chain mail, which, however carefully wrought will sink the reader in erudition but not "float him upon a deeper tide", the shifting tide of modern thought and progress. During the troublous period of the European War, the author has been, at whiles, keenly conscious of the need for thorough going revision in at least two of the sections, namely, those dealing with medieval and modern medicine. But recent investigation of medieval medicine, the main ambition of the foremost living medical historians of Europe, is still "Knowledge in the making" while present-day medicine, during the war period and after, has been in a state of flux. Revision along the lines contemplated will, therefore, be made to best advantage after a period of careful considera tion and study, when the civilized world has attained a period of less unstable equilibrium; and such revision, if well considered, will require the necessary element of time.

What has been accomplished in the present edition is as follows: A careful account has been rendered of the newer findings of Sudhoff, Neuburger, Wickersheimer, Singer, and other European investigators of ancient and medieval medicine; new matter has been added on the doctrine of the origin and transmission of ethnic culture (convergence and convection;) on Chinese medicine; on the history of pediatrice, dentistry, public hygiene, military medicine, and medical lexicography; on the earlier nuclei of medical education in the United States; on recent Japanese, Spanish, and Latin-American medicine and on the work of the medical

departments of armies in the European War. A number of new biographical sketches have been added, with portraits of Symphorien Champier, Villemin, Gurlt, Littre, Salkowski, Osler, Max Neuburger, and others. Errors of omission and commission have been corrected; the bibliographies at the end of the volume have been enlarged and improved; and the author index has been made as complete and exhaustive as pos sible. Special effort has been made to keep down the physical size and weight of the book, and to preserve something of its original plein air intention, by the use of small type in certain sections. As stated in the preface of the first edition, the author's primary object has been to stimulate the medical student or the busy practitioner to pursue his own studies in the history of medicine, and, judging from the large number of friendly and sympathetic letters received, this end has been, in some measure, attaind.

Review of Happenings in the Medical World.

Prospects of X-Ray Still Unopened

Scientists themselves are ignorant of the vast possibilities which have been unloosed for them in the last few months by the invention of high-powered X-ray machines, Dr. Leo E. Pariseau of Montreal, Que., told the Radiological Society of America recently

So rapid have been advances in the field of discovery that scientists have not had time to standardize practices and chart their way, he said. Dazzling prospects in use of the X-ray are still unopened, he added.

Doctors of the new world, the speaker continued, must lead the way in the application of common sense in the care of patients after they receive X-ray treatment.

"Man is not a metal, a retort, or even a white rat," he declared "and because the German scientists have laid down regulations based on purely scientific abstractions, we must, in many cases, disregard their findings and take the human equation into account.

"In many cases the patient has been cured by European methods and then has died because, in the excitement over the marvels of the science, the Germans forgot after all that they were dealing with human beings and bodies which defy rules and have to be treated as individual cases."

Toronto Doctor Honored by American Surgeons

Dr. Alexander Primrose of Toronto was today elected to the Board of Regents of the American College of Surgeons to serve until 1924.

Defects in Children.

Of seventy thousand school chil dren examined by the Medical survey of the Department of Education in the province of Ontario twelve per cent. are found to be suffering from defective eyesight, and 70 per cent. from decayed permanent teeth, while over 1,700 showed evidence of deafness, Dr. J. T. Phair of the Department of Education, speaking before the Educational Section of the A.A.A. S., gave an outline of what the survey was doing.

Says Straw Pop Suckers Likely To Cause Cancer

Chewing the straw suckers used in pop bottles is likely to cause cancer, Dr. Charles B. Graf, specialist, and vice-president of the Medical Association of America,, declared to-day. The increased use of the straws with soft drinks is possibly responsible for the great increase of cancer, he said. The straws carry a sort of fungus, he explained, which is transmitted to the blood.

Cancer Cured by Alum Use; $100,000 Reward Claimed

A claim for the $100,000 prize said here to have been offered by the Cosmopilitan Cancer Research Company, of Brooklyn, for an "authenticated treatment that will at least alleviate cancer, if not cure it," has been made in behalf of Dr. Reginald Larkin, of London. Dr. Larkin's theory is that the cancer germ is always found in association with some form of rheumatism, and that in internal cases the use of alum will benefit where operations cannot be performed, or following operations.

Dr. Larkin personally had no hand in claiming the American reward. He is exceedingly modest about his work, and is loath to discuss it. His most vociferous champion is R. W. Knight, a patient who consulted him when suffering from internal cancer. The presence of a cancer was proved by X-ray plates, and specialists suggested an operation. The alum treatment of Dr. Larkin stopped all pain, and recent X-ray photographs show no growth whatever.

"I have offered myself as a living example of the efficiency of Dr. Larkin's treatment," said Knight.

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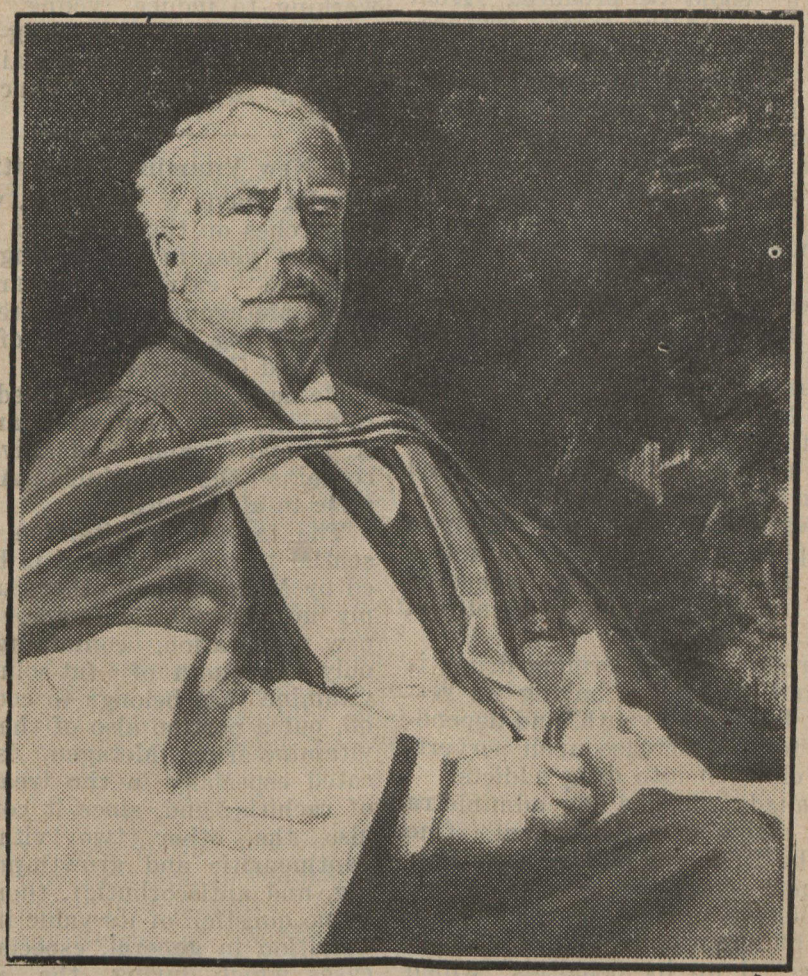

Portrait in oil, presented to Dr. J. Algernon Temple by graduates of the old Trinity Medical College. Dr. Temple, last and surviving dean of the college, began his practice in Toronto in 1869 and continued until very recently. Some thirteen hundred physicians who came under the influence of his personality and teaching are to-day practising throughout the continent.

Artificial Cocaine

Quantities of cocaine far in excess of the amount of drug which could be produced from the leaves of the cocoa erythroxion plant, have been marketed in the seaports of the world. So serious has the drug addiction plague become that international investigations were made to discover the sources of increased cocaine supply.

Announcement is now made that European chemists have perfected a process for manufacturing artificial or synthetic cocaine as a coal tar by-product. There is no limit to the amount available; and the destroying effects of the artificial cocaine are just as potent as those of the drug obtained from the natural leaves.

Death and crime are the two inseparable companions in active and appalling results wherever the traffic in cocaine is permitted to exist.

Trade in habit-forming drugs is an outlaw traffic, having no respect for sex or youth, and depending for its increase upon perverting children into drug addicts.

Canada will has now administration and a new Parliament. One of the first acts of the new Parliament should be to pass a law absolutely preventing the bringing of narcotic drugs into Canada —backed up by penalties which will make the law effective.

Most of the traffic is carried on by aliens; and the law should provide that every alien convicted of selling drugs illicitly be deported from Canada after serving a prison sentence.

Facts connected with the traffic are too terrible for cold print. In every seaport city hundreds of girl drug addicts are bound body and soul as earning slaves for drug-selling aliens. Every drug addict is an active missionary working to induce young innocents to take up the drug-using habit. The remedy is a plain law honestly enforced.— "Vancouver Sun."

A New Vitamine Preparation.

Parke, Davis & Company, whose researches on the vitamines resulted last year in the placing of a vitamine extract preparation, called Metagen on the market, are now offering an Emulsion of Metagen and Cod-Liver Oil.

Metagen, it will be recalled, contains the three known vitamines, A. B. and C; and Cod Liver Oil contains the fat-soluble A vitamine in abundance.

The fat-soluble vitamine is essential to nutrition, and is believed by Mellanby and others to supply an antirachitic factor. The new preparation, containing not only the quota of fat-soluble A vitamine that belongs to cod-liver oil, but a portion also of the same vitamine from Metagen, is indicated especially in the treatment of rachitis; and, since it contains also the other two vitamines (antineuritic and growth-promoting, and antiscorbutic), there can be no question of its value in malnutrition in general, especially in cases which during the winter months are subject, on account of low resisting power, to frequent attacks of bronchitis.

The dose of the new preparation for children is one to two teaspoonfuls; for adults, one to two tablespoons. The preparation contains 40 per cent. of pure Norwegian cod-liver oil and 2 per cent. of Metagen.

Violet Rays to Cure Tetanus In Children

The application of ultra-violet rays as a cure for tetanus in children has been advanced by the French physician Sachs, who declares he has obtained favorable results from the treatment. Several applications, he declares, will in most instances bring relief.

Toronto Babies Breed New Variety of Flies

Three cases have occurred in Toronto of babies suffering from a very severe eruption of boil-like sores on the neck, chest and arms, each sore containing one or more maggots," said Prof. E. M. Walker of the University of Toronto, in an address before The Entomological Society of America recently. "From two of these cases the maggots, after removal, were fed upon raw beef and developed into large, hairy flies of a species whose habits were hitherto quite unknown. The maggots grew so rapidly that their removal was urgent. The babies all recovered."

Forty Years of Ups and Downs in The Province of Ontario.

"Over 7,000 requests for the Annual Report of The Canadian Association for the Prevention of Tuberculosis were honoured before Xmas. This year's publication has a striking chart as a frontispiece entitled "Forty years of ups and downs in the Province of Ontario", showing a tuberculous death rate of 149 per 100,000, population in the year 1900, as the highest, and 78 per 100,000 as the lowest in 1920. The Secretary's report records the encouraging progress made in this very essential work. The report of the Federal Department of Agriculture, on its function, as assisting municipalities to obtain their milk supply from herds proven by the Tuberculin test to be free from tuberculosis, shows increasing numbers of communities protected. No shortage of milk occurs and no increase in price has yet resulted in a community taking on the scheme. The Standardisation of herds for breeding purposes, is proceeding apace limited only by the staff and finances available. The stock men are very keen for its application, as evidenced by the 657 herds now under departmental test.

The Federal Department of Soldiers' Civil Re-Establishment reports of their Board of Sanatorium Consultants are synopsised. Dr. Lecler's report upon Paris Tuberculosis Conference, also gives an excellent review of the marked advances being made in France, where 16,500,000 francs were expended in 1919, alone.

Several interesting papers presented at the Toronto Meeting together with the record of work of thirty-seven Institutions, in the different Provinces, forms a setting for President Elect Cook's optimistic address as to further activities of the Association.

An abbreviated Directory of 396 Canadian Agencies for the Diagnosis and treatment of Tuberculosis printed by the courtesy of the Federal Department of Health, is enclosed with each report, and shows 4,057 Sanatorium beds available. The large number of Public Health Nurses established by Provincial Boards of Health, and Red Cross Society is astonishing.

Rights of Doctors, Regarding Liquors

Mr. W. S. Dingman, vice-chairman of the Ontario License Board writes the following letter.

A daily newspaper recently commented on the temporary suspension of ninety physicians in the latter part of November in the matter of liquor prescriptions and orders on Ontario Government Dispensaries.

It may be that an authoritative statement is desirable. There were ninety-two suspensions at dispensaries of physicians consequent upon their October records, but with the exception of two, none remained suspended quite two weeks, and some only a few days, the brevity of the latter being due to assurances proffered by physicians affected.

Many who have been suspended at dispensaries acknowledged in letters or personal interviews the soundness of the Board's views and deductions. The newspaper mentioned, said the question which the Board was handling was one "which no lay body should settle." The Board sought to persuade the College of Physicians and Surgeons or the Ontario Medical Council to undertake the responsibility, but they refused and advocated the laying of this duty upon the Board. The official report of proceedings of the Ontario Medical Council of June, 1920 establishes this. The Legislature accordingly conferred upon the Board certain powers of disciplining which it had sought to exercise in the public interest.

The Board lacks power to suspend a physician from issuing six-ounce liquor prescription upon druggists. Its power to suspend relates only to dispensaries, prescriptions upon which may be for an imperial (40-ozs.) quart of distilled liquor or wine, or a dozen of porter, stout, ale, etc. It is obvious that so large a bottle as an imperial quart—a "crock" in bootlegger parlance—should be prescribed with judgment by the physician.

Set Average at Fifty

Before physicians received notice of the board's limitaton of fifty dspensary prescriptions per month, the record of such by all practicing physicians in Ontario was found to be, taking May, 1921 for example, as follows:—

Classes of Issuers.	Dtrs.	Liquor prescriptions.	Aver
A—Non-issuers ...	884		
B—1-25 in month.	2,000	14,307	7.15
C—26-50 in month	346	12,486	36.08
D—51-75 in month	142	8,686	61.17
E—Over 75 in mo	52	4,976	95.69
Totals	3,424	40,455	11.81

The two high classes here numbered only 194 out of 3,424 physicians. The board accepted the standard of the 3,230 not the 194 and set fifty per month as the maximum limit of liquor prescriptions on dispensaries. Herein the board may have erred on the side if liberality, there being basis for the argument that twenty-five per month are ample for even large practices under normal conditions and hence that psysicians who crowd fifty every month or exceed it, in the face of the example of their confreres, are taking liberties with the Ontario Temperance Act.

Such explains the basis of the ninety-two suspensions. That the effect was salutary, is proved by the fact that only sixty-two physi-

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cians exceeded fifty on dispensaries in November, short suspensions again following. It is expected that the lesson of the majority will soon have been learned, and that the two high classes may shortly disappear altogether, and that without increase of the death rate. That there is no reason for nervousness is further evident from the resolution of the Ontario Medical Council, of June 1918, to the effect that "the quantity of alcoholic liquor for internal use should be limited to eight ounces," so that the imperial quart cannot be needed nearly as often as it has been prescribed.

Is it not obviously, then, the board's bounden duty as administrator of the Ontario Temperance Act, to exert itself constantly to repress abuses in liquor prescriptions, and to insist upon observance in such of the principle laid down n the act of "actual medicinal need" based upon the judgment of the physician?

We yield tribute to the medical profession, and to adhesion by the great majority to the lofty ethics that form its standard. It is only a small unrepresentative and declining minority that needs discipline.

Medical Council View.

In 1920, the then president of the Ontario Medical Council, Dr. A. T. Emerson, of Goderich, expressed the representative view thus:—

"So long as the act remains in force, and the liquor to be used for medicinal purposes only, I can see no other way than for the physician to determine when this is necessary; and until we are prepared to go to the Government with some feasible scheme for otherwise dispensing alcoholic liquors, we must continue, not simply to carry out the spirit of the provisions of the act ourselves, but as a council, to urge the profession to likewise do so, and to do our part in disciplining those who violate the law. The welfare of the public and the honor of the profession demand this."

Pursuant to the policy thus enunciated, the Ontario Medical Council has itself punished by sus pension for various periods of the right to practice (a much more serious punishment than that by the board of suspension at dispensaries), of certain physicians who have been convicted in the courts for flagrant O. T. A. violations. So that excessive prescribers can claim no warrant from either the leaders or from a majority of their profession; the board, rather, can claim the warrant not merely of the law, but of the profession for its course.

Since there is reason to believe that many imperial quart prescrip tions are issued when medicinal need would have been met by the six-ounce bottle, it is well that the public should know the provisions for procuring the latter.

The alternative six-ounce prescription is obtainable in original sealed bottles from druggists, to whom the dispensaries wholesale them in cases of different brands or in assorted cases, at prices which permit retailing at 75c., 90c or $1.00 each, according to the brand, at the same time securing to the druggist a net profit of not less than 40 per cent. This rate of profit is insured regardless of distance, as the dispensary wholesale price to druggists includes delivery. Druggists are availing

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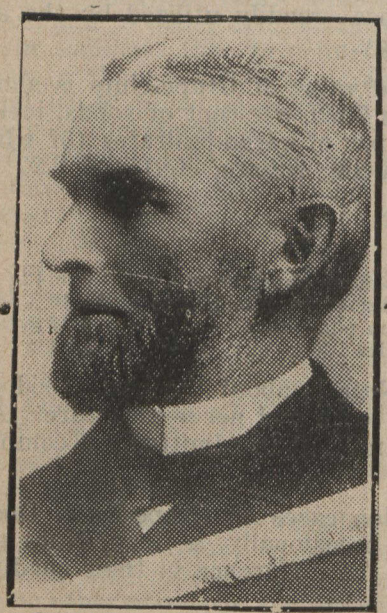
themselves increasingly of these options, with the result of absolute satisfaction to patients, both with regard to quality and price. Moreover in cities where dispensaries are located, the original six-ounce sealed bottles can also be procured for them. In other cities and towns, druggists are necessarily looked to as supply.

I trust that this unvarnished explanation will be welcomed by the public as clearing up points that are possibly not as widely understood as is desirable, and there fore will thank you for kindly affording this letter space in your valuable columns.

Dr. M. H. Aikens Passes in his Ninetieth Year



In the death of Dr. Moses Henry Aikens at Burnamthorpe, Peel County, Canada lost a noted medical man and Toronto township a physician and surgeon prominent for more than half a century. Dr. Aikens was in his 90th year. Until a few years ago he continued to practice his profession, and probably no general practitioner in the province was better known.

Born at Burnamthorpe, Dr. Aikens lived on the old homestead, where his grandfather settled in 1816. He received his education in the local grammar school, Victoria College, and Jefferson Medical College, Philadelphia, finishing up in England, where he obtained his M.R.C.S. degree. Dr. Aikens subsequently became professor of anatomy at the old Toronto School of Medicine, and was professor emeritus of anatomy of the University of Toronto.

A professorship did not prevent the doctor from conducting a large practice which extended through Peel, West York and Halton counties. Besides his medical duties he was greatly interested in the development of Toronto township, for many years being president of the local Estate Loan Co., Ltd., and a director of the York Farmers' Loan Co.

Dr. Aikens was a bachelor. His three brothers were the Hon. Senator James Aikens. ex-lieutenant-governor of Manitoba; John Aikens, who died in 1896; and Dr. T. W. Aikens, surgeon, and president of the late Toronto School of Medicine, Dr. W. H. B. Aikens of Toronto, and Sir James Aikens, lieut enant-governor of Manitoba, are nephews.

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