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## Original Communications.

### STENOSIS OF THE PYLORUS IN INFANCY—A SURGICAL EMERGENCY—A REPORT OF FOUR CASES OPERATED UPON, WITH RECOVERY.\*

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You are probably familiar with the beginnings of our knowledge of stenosis of the pylorus in infancy. The isolated cases of Beardsley, Williamson, and Dawoski, are classics. These were the sole recorded cases for the one hundred years previous to 1888. A knowledge of this disease, as in so many other *acute* affections, came first through post-mortem examinations. All of our knowledge of stenosis of the pylorus in infancy previous to 1898 was derived from autopsy records. The first operation for the relief of infantile pyloric stenosis was done in 1898. Since this time the information derived at the operating table has been added to the knowledge acquired previous to this date from autopsy alone.

In 1905, assisted by Quinby, I made a careful analysis and study of the 115 cases recorded in medical literature up to that time. Many interesting facts were developed by that study. Of these 115 cases 55 were records of post-mortem examinations and 60 were reports of operated cases. Up to 1908 there have been 135 cases operated upon.† Only three cases have been autopsied in France, and but five have been operated upon. Between 1898, when the first operative procedure was instituted, and 1905, a period of seven years, 60 operations were done. Between 1905 and 1908, a period of but two years, 75 operations were done for this lesion. The very great increase in the number of

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\* Read at the Annual Meeting of the Ontario Medical Association, Hamilton, Ontario, May 27, 1908.

† Dufour and Fredet, *Revue de Chirurgie*, Feb. 10, 1908.

operations suggests that the disease is being recognized more readily, and that it exists far more commonly than has been supposed. In those communities where it has been diagnosed the number of cases is continually increasing. During the period from 1898 to 1905 eight or nine operations were done each year, while during the two years preceding 1908 75 operations were done, or about 38 each year. This represents an enormous increase in cases coming to operation.

The reports of the most complete and recent autopsy findings confirm the earlier post mortem records. The findings post-mortem are almost always uniform, namely, a pyloric tumor of about the size of the end of the thumb, one inch by three-quarters of an inch. The size of the tumor, of course, varies somewhat, but within very narrow limits. Adhesions have never been found about the tumor. Certainly this suggests that no inflammatory or primarily ulcerative process has been associated with the formation of the tumor. The tumor is oval in shape; its surface is smooth; it is firm, almost hard, resembling cartilage. The situation of the tumor is constant, at the pylorus. In the adult it is ordinarily somewhat difficult to determine the exact situation of the pylorus; necessarily in the infant this difficulty is increased. That William Mayo should have recently described a method for recognizing anatomically the adult pylorus suggests the difficulty of detecting it. In each and all of these cases of infantile stenosis there has never been any difficulty in locating the situation of the tumor at the pyloric end of the stomach. The normal pylorus may be difficult of recognition. The pylorus of the baby with a stenosis is *never* difficult to locate.

Normally the pylorus, like the intestine, has two layers of muscle fibre in its wall, an inner layer of circular fibres and an outer layer of longitudinal fibres. The microscopic examination of this pyloric tumor finds always present a hyperplasia of the circular muscular fibres. The longitudinal fibres are almost never changed.

Normally the mucous membrane lies in longitudinal folds in the pyloric portion of the stomach. These longitudinal folds are found enormously hypertrophied. The significance of these hypertrophied longitudinal mucous membrane folds lies in three facts—(1) that they may serve as plugs to the lumen of the

pylorus, and thus occasion obstruction, and (2) at operation these hypertrophied folds may readily lie in the way of nice suture should pyloroplasty be attempted, and (3) they may easily be damaged if an attempt at the Loretta operation is made. Damage to these folds of mucosa might cause ulceration leading later to stricture of the pylorus. Occasionally there has been described a fibrous hyperplasia of the submucosa.

Careful measurements have been made of the varying thicknesses of the several layers of the pylorus, and in every instance the circular muscular fibre has been found increased in thickness. Measurements have been made also of the pyloric lumen to determine, at least for the pathologist, a standard of size for this lumen. It is an interesting fact in this connection that the degree of the stenosis is in no way proportioned to the degree of the hypertrophy. In all cases measurements have been made in the presence of the tumor, and narrowing of the lumen has been determined.

There are certain secondary changes present in the stomach which are of interest. Muscular hypertrophy of the wall of the pyloric segment has been described. In certain cases of long duration a dilatation of the stomach wall has been found. In all of my personal cases the hypertrophy was present, the process not having gone on to dilatation. The stomach is larger than normal. The cesophagus is found dilated, caused by the back pressure from the stenosis. The intestine is collapsed and empty. There is little or no evidence of a catarrhal process in the mucous membrane of the stomach. At operation the surgeon finds the pyloric tumor and sees the secondary changes in the stomach and the collapsed intestine. The biopsy confirms the findings of the necropsy.

Fortunately, in those cases which have come to autopsy and to operation, the clinical story is known in whole or in part. You are doubtless familiar with this story. It cannot be repeated too often. It should be indelibly fixed on the mind of the medical man, whether he be internist or surgeon. This is the picture, viz.:

An apparently perfectly healthy child is born; it is breast-fed; upon the third or fourth day it vomits. There is perhaps noticed a little lack of appetite. The child does not nurse as vigorously as he should. The lack of appetite is often overlooked. Upon the third or fourth day after birth the mother's breast milk appears in quantity. This may be the occasion for the vomiting of the baby having an obstruction at the pylorus. In some 52 cases of pyloric stenosis the average time of the

appearance of the vomiting was the 17th day of life. The vomiting is not the simple overflow of the full stomach seen so commonly in little babies; it is forcible, expulsive, persistent, obstructive. It is not dependent apparently upon the quality of the food, for variations in diet apparently have little effect. The quantity of the food, however, does have some effect. The baby vomits after a feeding, but he may keep down two or more feedings, and then vomit the total feeding. The amount vomited corresponds pretty accurately with the whole amount taken. The child is in some pain after feeding, but is relieved immediately upon vomiting. There are no evidences of nausea. The material vomited is usually the ingested milk. It seldom or never contains bile. In one case recorded in which bile was present the operation was postponed, the surgeon thinking that if bile appeared in the vomitus the pylorus must be patent, and that therefore food would go through. This child died without operation. Hydrochloric acid is rarely increased in amount. There is usually no hyperacidity. There is no blood in the vomited material. Lactic acid is absent. No catarrhal gastritis is present, certainly in the early stages. Constipation is present; little or nothing passes through the pylorus into the duodenum, consequently there is little residue to be passed as a movement. The dejections are meconium-like, consisting of epithelial debris, intestinal secretions, altered bile, and blood. These meconium-like dejections are very significant. The tongue is clean and moist. The breath is natural and sweet. The child temporarily is hungry and ravenous. There is progressive loss in weight; the child being starved wastes away. One instance is recorded of a pyloric stenosis in a plump, fat child. The attending physician was deceived by the plumpness of the child, operation was postponed, and the child died. The temperature is usually sub-normal, the pulse is small and weak. At the beginning visible stomach peristalsis is noticed as a wave passing from the left to the right. This peristaltic wave passing over the stomach is best seen by placing the child uncovered in a good light immediately after feeding. At a later stage of the disease, when the stomach is very much dilated and has lost its tone, this peristaltic wave is less noticeable and not so readily detected. The epigastrium may be considerably distended by the large stomach. Below the umbilicus the abdomen is sunken and depressed, containing the collapsed intestine. In a large proportion of the cases the pyloric tumor is felt. This tumor may easily be concealed by the large liver of the baby, and it may be mistaken for an enlarged gland. It is most readily felt

one-half inch to the right and three-quarters of an inch above the umbilicus. If the abdomen is looked at after a feeding and palpated as the peristaltic wave reaches the pyloric end of the stomach the pyloric tumor will be most readily detected. Palpation laterally is often helpful as suggested by Carpenter. Such is the story of this unique pathology. The very characteristic vomiting, the peristaltic wave, the pyloric tumor, the dilated stomach, a tetrad of symptoms occurring in an apparently healthy baby with a clean tongue and sweet breath whose bowels are constipated.

*Diagnosis.*—The typical picture is as described above. There are many variations from this type. Stasis may be complete, as in cases of atresia, or incomplete, or even more complete than that pictured above.

In studying these cases it is important to keep in mind this typical picture of the disease for the difficulty in diagnosis arises with those cases simulating a general stenosis of the pylorus. Those cases which simulate stenosis are the so-called cases of persistent dyspepsia, infantile indigestion. Infantile cases of functional gastric disturbance, with symptoms suggesting pyloric stenosis, are very common. In these doubtful cases the vomiting will be less regular; it may cease for long periods; it will not be so expulsive; it will be more a regurgitation; the stools will be green and slimy; there may be constipation; there may be diarrhoea; the atrophy, the wasting will be slow; there will be no pyloric tumor. These doubtful cases are spoken of by some writers as instances of pyloric spasm. I agree with Cautley that spasm is an assumption on the part of the medical man to explain symptoms. It is an assumed etiological factor. Probably no hypertrophy was ever caused by spasm, although spasm may explain recurrent vomiting. I think the simplest classification of these cases is into two groups, cases of difficult feeding and of true pyloric stenosis. Cases of pyloric stenosis are almost always instances of partial stenosis. There are certain medical extremists who continually strive to antagonize medical and surgical therapeutics. They try to accomplish blindly what surgery attempts to face openly. They would employ electrolysis for stricture of the urethra. They invoke muscle spasm to explain mechanical conditions, then seek to overcome the muscle spasm by small doses of opium. They urgently advocate treatment for secondary indigestion rather than the removal of the immediate cause of the indigestion, the pyloric obstruction. Babies with stenosis of the pylorus are *not* suffering ordinarily from dyspepsia or indigestion, but from

an obstructive lesion. Medicine cannot cure an obstructive lesion. Surgical therapeutics alone can relieve an obstructive stenosis of the pylorus. To distinguish the ordinary indigestion from the acquired dyspepsia due to, and occasioned by, a congenital pyloric stenosis is, of course, often most difficult.

*Prognosis.* The prognosis is apparently hopeless, at least very grave, in cases treated medically. No case is on record which has received medical treatment and has recovered in which it has been proved that the disease existed. One case only, that of Batten, was treated medically, and, dying subsequently of some other lesion, was found to have a suggestion of stenosis. Many cases are treated medically, and come to operation, and the disease is found. These facts are most significant. Those who like Heubner of Berlin, and a few other, believe that all cases should be treated by medical means, have not seen the true pyloric tumor cases. Heubner's facts are unsatisfactory. He probably has seen cases of difficult feeding, but not the cases of true pyloric tumor.

The case reported recently by Morse\*, Murphy, and Wolbach, the specimen from which I will show you later, is unique in medical annals, and most significant. It is the only instance in which an autopsy has been secured so long a time following operation upon a case of pyloric infantile stenosis. It was briefly this: The diagnosis of pyloric tumor was made. At operation the tumor was found. A posterior gastroenterostomy was done, and the child recovered, gaining in flesh and strength, and developed for seven months as a normal child; the child then died of no disturbance which could be associated with the stomachic lesion. At autopsy the pyloric tumor was found unchanged, appearing as it was at operation seven months previously. The stoma between the stomach and the intestine was found intact. This is a most unique and remarkable picture. It means that, despite the proper short circuiting of the obstruction at the pylorus the pyloric tumor remained unchanged for seven months. It is suggested by this case that probably medical treatment with drugs is unable to effect any material change in the character of the pyloric tumor.

The *mortality* following operation is bound to be always rather high, for the operation is done upon a weak child, and the situation is that of an emergency. In the series of 60 operations studied by Scudder and Quinby in 1905, the mortality from all operations was found to be 46.6 per cent.; in the 135 operations up to 1908 the mortality is found to be 48.8 per cent.

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\* Boston Medical and Surgical Journal, 1908, clviii., 480.

The estimated medical mortality of these cases of pyloric tumor is between 80 and 90 per cent.

*Treatment.* If the diagnosis is made of a pyloric tumor causing obstruction, whether partial or complete, operation should be done immediately. If the tumor is felt operation should be done immediately. If the clinical picture is suggestive and is wanting only in the presence of the palpable tumor operation should be done, provided the baby is losing under skilled feeding. An exploratory operation in doubtful cases that are not doing well may be wise. Two objects are attempted by operation. First, the overcoming the obstruction to meet the emergency of starvation, and, second, the restoration by operation of the intestinal canal, so that it will serve the individual during the remainder of his life.

There are three chosen methods of procedure. First, the Loreta operation. In this the stomach is opened and the pylorus is stretched by the introduction into it of a pair of forceps. This procedure has met, apparently, with success in a certain number of cases. I believe that it is a dangerous and unsatisfactory method. *Dangerous* for two reasons: First, the peritoneum may be ruptured in an inaccessible part, where suture will be impossible. Second, damage to the pyloric mucosa may lead to subsequent ulceration and stricture. *Unsatisfactory*, because certain recurring cases have demanded a second operation.

The method of pyloroplasty. This is the operation done most in England. It consists in an incision from the stomach into the duodenum across the pyloric tumor, and the suturing this incision so as to increase the lumen of the pylorus.

I believe that this operation is unsatisfactory, because the parts operated upon are stiff and rigid and not mechanically adapted to the procedure. Moreover, the lumen is not immediately restored, but only after 24 or 48 hours.

The third method I believe to be the most satisfactory—the posterior gastroenterostomy. This is the best method.

#### THE OPERATION OF POSTERIOR GASTROENTEROSTOMY.

The Anatomy is so tiny that small instruments are to be used.

*Before Operation.* These little babies will be helped to withstand the shock of operation by an enema of brandy and salt solution. If possible this should be given several times during the twenty-four hours previous to operation. The stomach should be emptied by catheter, even though the baby may have recently vomited. No antiseptics should be used on the baby's skin. The abdomen should be prepared with soap and water,

applied with a soft piece of gauze; the skin may be washed with alcohol, 70 per cent. If the umbilical cord is not separated or has not healed special precautions will be required to effectively protect the skin from the suppurating area. This is best accomplished by a cocoon of collodion and cotton, which should completely cover the stem of the umbilical cord. The baby's arms, chest, and legs should be separately covered with sheet wadding held in place by bandages. Warm water bags or bottles should be placed at the baby's feet and sides. All instruments, solutions, assistants, sponges, and sutures should be ready before the anæsthesia is given in order that the baby may be kept under the anæsthetic as short a time as possible. Little babies take ether well. Complete anæsthesia is necessary, but as soon as it is secured a light anæsthesia may be maintained satisfactorily.

The incision should be in the median line about three or four inches in length, to the left of the umbilicus. After palpating the pyloric tumor a complete posterior gastroenterostomy should be done. Only the necessary gentle manipulation of the gut should be made. The mesocolon in these little wasted infants contains no fat and is transparent.

The method of anastomosis should be that followed in adult surgery, namely, the Mayo operation, of no loop at the lowest part of the stomach and opposite to the perpendicular lesser curvature in the pyloric portion. Fine linen should be used in the outer suture, fine chromic gut in the inner suture. Clamps should be used to ensure cleanliness and hemostasis. After the anastomosis has been made the parts should be returned to their natural position, with the bowel to the left of the spine. The abdominal wall should be sutured in layers, peritoneum, muscular layer, and skin; there will thus be no cutting of sutures or hernia. In placing sutures the vascular and prominent suspensory ligament of the liver should be avoided. The dressing should be held in place by a bandage and not by a swathe; there will thus be no slipping of the dressing.

Immediately after the operation salt solution and brandy may be needed. The child should be placed in the semi-sitting position.

Great difficulty may be experienced in the early post-operative feeding of these little starved babies.

*Feeding.* It will be wise at first to tentatively feed the baby. Water, whey, mother's milk should be given in small quantities of half a teaspoonful at a time. The quantity may be gradually increased until after a comparatively few days the baby is taking a half-ounce every three hours. Breast milk is the best food.

*Haemorrhage.* Occasionally there is bleeding from the abdominal wound; even though it be slight it may be of considerable importance. Little babies stand hæmorrhage poorly. A suture may be placed so as to control this hæmorrhage. I have had one experience with hæmorrhage, in which, after the third day, a deep suture served to control it.

*Vomiting.* Vomiting will occur after operation occasionally for perhaps six or eight days, the vomiting being but once or twice a day perhaps, or three or four times a day, variable in time and amount and gradually subsiding.

*Hernia.* In the cases here recorded there have been no herniæ. With the abdomen closed by layer suture hernia is unlikely.

I wish to record here the following cases from my own experience with congenital stenosis of the pylorus:

\**Case No. 1.* A boy baby artificially fed vomited from shortly after birth, lost in weight and strength. Operation was done when 14 days old. At present 3 years old, weight over 33 pounds; in perfect health. This happens to be the youngest recorded case recovering after operation.

\*\**Case No. 2.*—A boy baby, breast fed, vomited soon after birth; lost in weight and strength. Operation was done when 24 days old. At present he is 2 years 10 months old and in perfect health.

*Case No. 3.*—Patient of Drs. Morse and Day. Reported here for the first time. A boy baby, began to vomit when 16 days old. This baby was breast fed. Operation was done on the 22nd day after birth. At present the child is 1 year and 7 months old, and is perfectly well.

*Case No. 4.*—Patient of Dr. C. P. Putnam. Reported here for the first time. A boy baby, began to vomit when 14 days old. A breast fed and artificially fed baby. When 25 days old operation was done. At present he is 6 months old and in perfect health.

*Case No. 5.*—Reported here for the first time. A baby about three weeks old, who was evidently not going to live but a few hours, so operative treatment was refused. At a subsequent autopsy the stomach and duodenum were obtained. The pylorus presented a characteristic tumor.

*Case No. 6.*—A patient of Dr. Morse. Reported here for the first time. A baby 7 days old, who vomited on the 3rd day, and because of the persistence of the vomiting and the rapid failing of the child was operated upon when 7 days old. The operation discovered no pyloric tumor nor any pathological

\* Boston Medical Surgical Journal, Dec. 11, 1905.

\*\* Boston Medical Surgical Journal, Feb. 22, 1906.

lesion of the stomach. Recovery from the operation was uneventful. The child was most difficult to feed for a time subsequently, but now, a year and three months after the operation, the child is well.

Sufficient time has now elapsed since operative treatment was instituted for pyloric infantile stenosis, so that a few results some years after operation are known.

These cases which I have just related were operated upon three years, two years and ten months, one year and seven months, and six months ago, respectively.

All these cases are well and strong, and apparently healthy children.

Gastroenterostomy in adults was undertaken originally in order to overcome an obstruction at the pylorus. Observations of Katenstein and Joslin and others make it probable that the gastroenterostomy causes certain definite changes to take place in digestion. These facts are interesting in connection with gastroenterostomy in little babies. These cases of gastroenterostomy in infancy serve as experiments in metabolism, and whereas I know of no careful chemical analyses of ingesta and egesta, yet the good health and apparent good nutrition of these babies subsequent to the operation would lead one to suppose that nutrition is not impaired, but that it remains good. These cases of gastroenterostomy following pyloric stenosis in infancy stand therefore as evidence for the opinion that gastroenterostomy is not harmful, but that it has secured for these individuals not only a tiding over of the threatened starvation, but has actually been no impediment or hindrance to good nutrition.

These surgical experiments upon the practically healthy living child are final, despite laboratory findings.

## THE SERUM TREATMENT OF CEREBROSPINAL MENINGITIS.

BY ALLEN M. BAINES, M.D., C.M.,

Associate Professor of Clinical Medicine and Pediatrics, University of Toronto.

The successful treatment of this dread disease has aroused more enthusiasm in the medical world than any other discovery, for so we may term it, that has been published, discussed and endorsed since that boon to the public, the antitoxin of diphtheria. To Dr. Simon Flexner of the Rockefeller Institute, New York, is due the gratitude of the medical profession and general public for introducing the antimeningitis serum.

Last year Dr. Flexner developed an animal serum, with which he treated monkeys afflicted with this disease. It was found curative, and in no case harmful. Further experimentation in human beings gave the same gratifying results. At the annual meeting of the Pediatric Society, held at Delaware Watergap, in May, the main topic of discussion was Dr. Flexner's paper, in which he reported results obtained from over three hundred patients coming from one end of the States to the other, and also a large number from Belfast, Ireland, and Edinburgh. In an editorial in the *Archives of Pediatrics*, from which we quote, Dr. Flexner states that the mode of action of the serum is mildly antitoxic and decidedly bacteriolytic, the serum having the effect of promoting the development of the meningococci, and bringing about their disintegration. On account of this property of the serum, it must necessarily be brought into contact with the germs in a fair degree of concentration, and, therefore, it must be injected into the cerebro spinal canal after the cerebrospinal fluid has been withdrawn. It has little or no effect when injected elsewhere.

In the first place the serum is harmless. It has never been followed by injurious results. Secondly, it has produced a decided reduction in the mortality of the disease. The usual mortality in this disease is about 80 per cent. In cases treated by the serum the mortality is but 30 per cent., or under. This is a great contrast, for in the New York epidemic of 1904 there were 2,350 cases, with a mortality of over 75 per cent. Infants under one year all died. In Belfast, during the epidemic of this year, the general mortality of those treated outside hospitals and without serum was 80 per cent.; those treated by the serum in the hospital, under 26 per cent. In Akron, Ohio, there were nine cases treated without serum, one recovery; twelve cases with serum,

nine recoveries. In fourteen cases of infants under one year treated by serum nine recovered.

The most striking phenomena following the use of the serum is the amelioration of many symptoms. The temperature drops either suddenly or gradually, a crisis occurring commonly within 48 hours. With the subsidence of fever comes improvement of other symptoms. A cessation of pain and hyperaesthesia, clearing of the mental condition, the comatose state giving way to improved intelligence, and once more the child is interested in the surroundings, and takes food. Retraction of the head and Kernig's sign are the last to yield, some days after disappearance of all other signs. The whole course of the disease is much shortened, to a week or ten days in many instances. This shows a mighty contrast to its usual course of five to eight weeks in cases recovering without serum treatment. The laboratory showings are of extreme interest. The fluid can be tested microscopically, and important changes marked, after the use of the serum. Following the first injection, there is observed a lessening in the number of the meningococci in the fluid outside the cells. After successive injections a lessening of these inside the cells, the organisms become swollen, indistinct, and, moreover, refuse to grow in cultures. Finally they disappear altogether, and the amount of fluid becomes rapidly less. This effect on the organisms, since it can be definitely followed from day to day, furnishes objective proof of the efficiency of the serum, and this evidence can be proven in the laboratory by a disinterested investigator, thus obviating personal enthusiasm of the clinician. The consensus of opinion of the members of the Pediatric Society was as follows: In every case of cerebrospinal meningitis lumbar puncture should be done at once. If the fluid thus obtained be turbid, from 20 to 30 c.c. of the antimeningitis serum should at once be injected into the spinal canal, without waiting for a bacteriological report of the extracted fluid. Turbid or purulent fluid usually shows the germ. Should it show pyogenic organisms or pneumococci, no harm will have been done. The injection should be repeated daily for three or four days, or until symptoms are improved. It is significant that the more recent reports of the use of the serum show better results than the earlier reports, which seems to point to the fact that experience as to procedure, dose, time, etc., is bringing about better results. The earlier the condition is diagnosed and treated, the quicker and better are the results. The blood count is also of great interest. In many cases, at the outset, the leucocytes show 30,000, but within four or five days fall to 12,000, with an increase of polynuclear leucocytes.

Heiman, of Mount Sinai Hospital, writes concerning the method of performing lumbar puncture and introduction of the serum as follows: "Since Quinekes' publication in 1891 on lumbar puncture this procedure has become firmly established as an indispensable therapeutic and diagnostic measure, and has done more to place meningitis on a scientific basis than any other modern procedure. On account of its great importance, I shall give a somewhat detailed description of the proper method of performing this minor operation. We aim to obtain the spinal fluid by entering the subarachnoid space below the point where the spinal cord proper terminates, so as to avoid any injury to this important organ. It has been found, even in infants, that the cord does not extend below the second lumbar vertebrae, although the subarachnoid cul-de-sac extends below the fourth interspace. This fact gives us the selection of the proper site of puncture in infants, which should be the fourth lumbar interspace, that is, on a level of the highest points of the crests of the ilia. The patient should be placed on the left side in the horizontal position at the edge of the bed or operating table. An assistant should hold the patient by gently grasping the neck and legs, and, by exerting moderate anterior flexion of the spine, separate the spinous processes, thus facilitating the introduction of the needle. I prefer the use of the original Quineke needle, to which I have added a movable flange-like guard. This, set at the proper distance, *i.e.*, 2 to 4 c.m., in children, 4 to 7 c.m. in adults, just previous to the puncture, prevents the needle from puncturing too deeply, and thus avoids injury of the anterior venous plexus. It also helps to steady the needle after its introduction.

"The skin at the side of the puncture having been surgically prepared, and wet bichloride towels spread on the table and floor, the operator inserts the needle at an angle of 10 degrees to the axis of the spine, in the median line in children, 5 to 10 mm. to the right in adults. When the needle is in the proper place the stylet is removed and the cone inserted into the hilt of the needle, thus connecting the latter with the manometer, by means of the tubing. The hydrostatic pressure is then measured. The fluid is allowed to flow into sterile test tubes by lowering the manometer. The withdrawal of fluid should cease when the hydrostatic pressure is 3 to 5 c.m., which is the normal pressure.

"Thus far, simply puncture, measurements of pressure, and withdrawal of fluid have been described, without withdrawing the needle. From 20 to 30 c.c. of the warmed serum is placed in a serum syringe, or in a pointed test tube or ear syringe, the

manometer removed, and the fluid slowly injected; or, if the test tube be used, by elevating, its gravity will carry the serum into the canal.

“The procedure is to be repeated daily, or at least every second day, until the temperature falls, and the general symptoms have improved. Meantime the effect upon the cerebrospinal fluid is carefully studied.”

228 Bloor Street West, Toronto.

(Note.—Any physician who has an acute case of cerebrospinal meningitis may obtain the serum free of charge on application to the Hospital for Sick Children, Toronto. This offer holds good until the serum given by Dr. Flexner to Dr. Baines is exhausted.)

## THE WATERS OF VICHY.

BY FELIX FAU, M.D.

Among the old watering-places of France, Vichy is certainly the best known and the most frequented. The season opens on the 1st of May and lasts until late in the fall, during which time there are about 100,000 visitors from all sections of the world, and, having undergone the "cure," affirm their belief in the beneficial effects derived from the natural waters, which are to be had at the present day in all the markets of the world. Experience during centuries has confirmed the usefulness of mineral waters in the treatment of many maladies and their salutary influence in a great number of chronic affections.

According to Pliny, the ancients believed that a tutular divinity and a friend of man presided as guardian over every source of mineral water, reminding us of the lustral and magic waters, which were the last refuge of the sick and of the physicians; so that Alibert, in 1815, wrote: "Nature has everywhere given in profusion mineral waters for the happiness and preservation of the human race."

Mineral waters, although being a precious resource of the healing art, are not infallible in every case, but they may console those who use them and arrest for a time the progress of chronic diseases. Let me quote from that immortal observer, Aretæus, "All sick persons cannot be healed; if so, the power of physicians would surpass that of the gods: it is a great deal if the physician succeeds in softening the sufferings and ameliorating the progress of the maladies."

Modern medicine and chemical analysis have made rapid progress, and the natural mineral waters from the Bassin de Vichy are still more freely prescribed than ever by leading physicians, and the chemical analysis remains the same. Some are of high temperature and saturated with potassium, sodium and various salts, while others are fresh, sparkling and agreeable, containing considerable carbonic acid, iron and lithium. All these have their uses, but physicians skilled in the knowledge of the waters are the indispensable mediums for directing the patients in the proper and safe course of treatment.

The scientist requires technical knowledge and must be thoroughly conversant with the waters found in the Bassin de Vichy. When the season opens a number of renowned physicians occupy themselves in consultation work at this noted resort.

Speaking the English language, I have fortunately among the visitors from Canada and the United States many clients, and I am frequently asked the question, what is the best water in Vichy? To answer this question in a satisfactory manner requires considerable experience of the effects of the waters of Vichy in cases of stomach trouble, liver complaints, hepatic colic, dyspepsia, diabetes, rheumatism, and other affections. Leaving aside the hot mineral waters, which do not bear exportation, and considering only those from the cooler sources which are of particular interest to those living outside Vichy, I may say that my attention has been concentrated especially on the spring which has been so highly celebrated, the "Source Andreau." Deep study in this has allowed me to verify the analysis that it contains a considerable amount of mineral components, such as, arseniate of soda, bicarbonate of magnesium and calcium, protoxide of iron, chloride of strontium, phosphate of soda, and free carbonic acid. The Andreau Spring gushes in Cusset, two miles from the centre of Vichy, in a large park, where the circumstances are favorable for the careful bottling of the water for exportation, and under the most up-to-date hygienic management. It is not decanted or canalized, but bottled directly at the Source at a temperature of 55 degrees Fahrenheit, which fact insures the perfect conservation of its natural properties.

I was encouraged in the use of this water owing to the exceedingly favorable experience of some of my eminent colleagues, and especially of Dr. Chevreux, of Vichy, and my ten years' experience has been such as to cause me to affirm that I have found it to be the standard water of the Bassin de Vichy.

It has been mentioned—right or wrong—by many men that by the too liberal use of the Vichy waters they tend to weaken the system. This report does not hold good, however, to the Andreau water, as it contains a considerable proportion of iron and lithium, which tends to strengthen and rejuvenate those who partake of it. I have used Andreau water in severe cases of hepatic colic, nervousness, urinary troubles, neuralgia, anemia and rheumatism.

I shall not further trespass on your space or go beyond the limit imposed in these lines: "Seribitur ad narrandum non ad probandum." I shall be glad, however, if I have said anything to interest my esteemed colleagues of Canada, as those whom I have met are in sympathetic accord.

Vichy, April 28, 1908.

## PRESIDENT'S ADDRESS, ONTARIO MEDICAL ASSOCIATION.

BY INGERSOLL OLMSTED, M.D., HAMILTON.

*Gentlemen*,—Permit me first to thank you for placing me in the honorable position of President of the Ontario Medical Association. In electing a member of the profession of this city to fill this most important office, I feel that you wished to do honor to Hamilton and to the profession here, rather than to the individual. On two previous occasions Hamilton has been honored by the election of one of its citizens to the Presidency of this Association. In 1883 the late Dr. J. D. Macdonald was chosen, and again in 1888 the late Dr. J. W. Rosebrugh received the honor. The first and only meeting of this Association in this city was held in the old City Hall on James Street North, where the present City Hall stands, in the year 1884, just twenty-four years ago.

After an absence of twenty-four years, it is my pleasant duty to extend to you a hearty welcome. We feel that the prodigal has returned, and an intellectual feast has been prepared for you. We trust that the reception given you this year will induce you to return to us in the near future.

Hamilton has well deserved the name of the Ambitious City. It may not be generally known, but nevertheless a fact, that this was the first city in America where antiseptic surgery was practised. Dr. A. E. Malloch, a Canadian, who is with us this afternoon, was a house surgeon of Lord Lister. He returned to Canada and introduced Listerism in Hamilton in 1868.

In his early operations the spray was used, but realizing that it was unnecessary, he abandoned its use years before it was discarded in England. The results he obtained, and the work he did were as fine as anything I have ever seen.

Also this is the first city in the province where compulsory notification of tuberculous patients to the Medical Health Officer was established. It was owing to the energies of Dr. W. F. Langrill, the present Medical Superintendent of the City Hospital, that this important by-law was passed in 1902. At that time Dr. Langrill was the Medical Health Officer, and he was ably supported by the Hon. Lieut.-Col. John S. Hendrie, who was Mayor of the city.

There have been many improvements in this city during the past twenty-four years. Whereas formerly there was only one hospital, with accommodation for 100 patients, we now have

two first-class hospitals, the City, with 250 beds, and St. Joseph's with 50 beds. Both of these institutions are splendidly equipped with modern appliances, and over 3,000 patients are treated annually in the wards, and about the same number are treated as out-patients. The surgical work has increased by leaps and bounds, and the results have been excellent.

Two years ago a Sanatorium was established on the mountain, for the treatment of incipient cases of tuberculosis. It has accommodation for 35 patients. The results obtained there have been very encouraging.

Another very important institution is being erected, thanks to the generosity of one of our citizens, Mr. William Southam, namely, a hospital for advanced cases of tuberculosis. We will henceforth be in a position, we hope, to successfully cope with the ravages of this terrible disease. It is thus a great pleasure for us all to have the members of the Association meet here.

Now, in regard to the Association itself. We felt that owing to the tendency of its members to devote themselves to special branches, new sections should be formed. The various subjects could not be fully discussed in the two sections, Medical and Surgical, consequently three additional sections have been formed, namely, Preventive Medicine, Eye, Ear, Nose and Throat; Obstetrics and Diseases of Children. Two additional sections could easily be added, namely, Mental Diseases and Diseases of the Nervous System and Pathology. I firmly believe that if this plan were followed, and the different sections were placed in the hands of enthusiastic men, our annual meetings would be very much better attended.

With 2,500 practitioners in this province, we should have more than 10 per cent. of them at our meetings. Some parts of our Ontario are seldom represented on our programmes. This should not be allowed. During the year hundreds of interesting cases are seen by the different physicians, which are never published. The rule to take careful notes of cases should be more generally adopted. It would then be a very easy matter to get up a short paper which would lead to good discussion with marked benefit to all present.

During the past two years several county medical societies have been formed, and if the officers of these societies were to interest themselves in getting their members to write papers and present them to the Ontario Medical Association, the duties of the officers of this society would be lightened very much.

We want every physician, whether practising in village, town

or city, to come to our meetings, and give us the benefit of his experience.

Many of the papers on the programme this year are by Canadians practising in different parts of the United States. Thus, there are two from New York, two from Johns Hopkins Hospital, Baltimore, and two from Detroit. Montreal has sent some of her best physicians and surgeons to assist us at this meeting, and last, but not least, our brethren across the line, who unfortunately are not Canadians, have graciously laid aside their work and come to us with the best fruits of their labors.

For the preparation of this programme, gentlemen, we are chiefly indebted to the untiring energy and faithful work of the chairman of the Committee on Papers, my friend, Dr. Wallace.

As there are a large number of excellent papers to be read this afternoon, I shall not take up any more of your time, but will proceed with the programme.

## Selected Article.

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### THE TREATMENT OF SUNSTROKE.

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BY HENRY C. BECKER, M.D., NEW YORK.

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In a consideration of the treatment of insolation we take cognizance of two forms, the *hyperpyrexial*, where the temperature is the important point at issue, and the other where an exhaustion or prostration is the important feature; the latter variety, known as *heat exhaustion*, may be mild, moderate, or severe.

In the *hyperpyrexial form* the vital point in the treatment is the rapid reduction of the temperature; the prognosis is fair in direct proportion to the rapidity with which the temperature is reduced, and in inverse proportion to the length of time it has endured. In an emergency place the patient in the coolest and shadiest place available, loosen the clothing, and dash cold water over head and body; with better facilities to hand place the patient in a bathtub of cold water, adding to it pieces of ice; the extremities and body should be constantly and vigorously rubbed while thus immersed. In those favorable cases where the temperature falls it is accompanied by an improvement in the pulse and respiration, and a clearing of the mind; it is well then to take the temperature per rectum every fifteen minutes, and remove the patient from the cold bath when the thermometer registers 102 degrees F. The temperature often falls 2 degrees every fifteen minutes, and may keep on falling even when the patient is removed from the bath; to obviate a sub-normal temperature and a collapse, it is well to observe this rule. When the patient has been removed from the cold bath there may be a rebound of the temperature four or five hours after, particularly in those cases whose temperature has been above 106 degrees F. This can be controlled by cold packs or cold sponging. Cold water enemas are ineffectual unless ice cold, when they become too dangerous for use, the patient being liable to go into collapse. Antipyretics should not be used as a routine method, although in the tropics the hypodermatic use of quinine is

highly spoken of. If there is much struggling or delirium a hypodermatic injection of one-fourth grain of morphine may be given. The sudden shock from the cold water may produce a tonic muscular spasm including the diaphragm; in these cases five minims of amyl nitrite as an inhalation, with an increase in the temperature of the water employed in bathing, along with artificial respiration, if necessary, will tend to overcome the spasm; keep up the artificial respiration half an hour if need be.

There is a strong tendency to congestion and edema of the lungs; this condition should be met by dry cupping and hypodermatic injections of atropine and strychnine. Strong, robust, plethoric individuals with full bounding pulses require one-fiftieth of a grain of nitroglycerin; leeches to the temples and behind the ears are also helpful. After the reduction of the temperature the bowels should be emptied with a stimulating enema.

The after-treatment consists in keeping the patient in bed for several days on a light and easily digestible diet: there is often a subsequent intermittent fever, lasting several days; this is best treated by means of cold sponging and tablespoonful doses of spirits of mildererus given every four hours. For the headache small doses of acetphenetidin with citrated caffeine may be given. Special attention should be given to the bowel and kidney functions; any resulting sequelæ should receive appropriate treatment and care.

In the treatment of *heat exhaustion* stimulants are primarily indicated, and in severe cases, to insure their certain and prompt effect, they should be given hypodermatically.

The slightest manifestation as headache, vertigo, and faintness should be heeded, and the patient immediately removed to some cool and shady room or place. A teaspoonful of aromatic spirits of ammonia in a glass of cold water will suffice in the milder form of cases; if somewhat feverish cold sponging with alcohol and water is indicated. It is in the more pronounced and severer forms of heat exhaustion that heroic means are often necessary to save life; when there is respiratory failure strychnine, 1-30 to 1-15 gr. is to be injected, oxygen gas and artificial respiration may be required and resorted to; in acute heart failure camphor, 1 gr. dissolved in sweet almond oil, 6 m.; or a solution of citrated caffeine, 1 to 2 grs., injected; if pulse is soft and feeble digitalin, 1-200 gr., repeated in an hour if necessary; if pulse is full and bounding, 1-100 to 1-50 gr. nitroglycerin. For reflexly stimulating the nerve centres mustard paste or the douche may be employed.

The after-treatment is rest in bed, with tonic and stimulating medicines and treatment of any resulting sequelæ.

*Prophylaxis.*—This consists in the prevention of exposure to the direct rays of the sun, moderation in the amount of physical and mental work, the wearing of light and cool clothing during a protracted spell of hot and humid weather. The diet should consist of little meat with plenty of vegetables and fruit: strong alcoholic liquors should be eschewed. Water externally and internally so that bowels, kidneys, and skin may be kept active, for as a general rule a patient who sweats does not suffer sunstroke.—*New York Medical Journal.*

# Progress of Medical Science.

## OBSTETRICS AND GYNECOLOGY.

IN CHARGE OF ADAM H. WRIGHT, K. C. M'ILWRAITH, FRED FENTON  
AND HELEN MACMURCHY.

### Treatment of Face Presentations.

Rudaux (*La Clin.*, April 3rd, 1908) considers that in face presentation the practitioner must learn how to wait, as much harm is done by interfering with Nature. These presentations, which do not include brow presentations, are diagnosed by palpation and vaginal examination. If the contractions allow it, the depression of the neck may be felt between the smooth surface of the back and the round hard head. The examination per vagina permits the face and features to be distinguished and the position made out. The chin can seldom be definitely recognized, but its position is indicated by the nose, which does not become oedematous, and of which the nostrils are always distinct, and point towards the chin. If these orifices point to the right the presentation is a right one: if at the same time they are directed towards the sacro-iliac symphysis the presentation is to the right and posterior. Face presentations occur once in every 250 labors. The author advises that no attempt be made to change the presentation into a vertex, but that the face presentation be accepted both before and after the head is engaged. The course of labor is slow; very few vaginal examinations should be made, but it is well to auscultate often, so as to recognize early any signs of distress on the part of the fetus. When the chin is not directly under the symphysis the movement of flexion should be retarded, and great care should be taken of the perineum at the time of expulsion. When the head is not engaged in the brim of the pelvis and the membranes are unruptured, internal version can be performed. If the membranes have been ruptured for a long time and there is marked contraction of the pelvis, only symphysiotomy or Gigli's operation will save the child. When, however, the head is engaged the forceps must be applied, but there are cases where the chin rotates backwards and there is so much impaction that the forceps cannot be put on; if the

child is to be extracted alive the pelvis must be enlarged. If the child is dead or its life is hopelessly compromised, the use of the basiotribe is indicated. In applying the forceps special care must be exercised, and a finger should be passed into the mouth to ascertain whether extension of the head is complete, or to complete it by pressure on the roof of the mouth. Delivery is not possible unless the chin lies under or near the symphysis pubis. It is, therefore, necessary to assist rotation to complete itself before exercising traction downwards. After the chin has been brought out from under the pubic arch, it is time to promote flexion of the head by raising the handles of the forceps. This must be done gently, because the forceps only hold the head by its parietal eminences and the grip is easily displaced. The usual precautions against perineal lacerations must be adopted.—*British Medical Journal*.

**Primary Epithelioma of the Clitoris.—A Treatment of Two Cases.** BY EGBERT H. GRANDIN, M.D., NEW YORK,

This condition would appear to be of such exceeding rarity that I report the following two cases—the only ones which I have seen during my medical career of nearly thirty years.

CASE 1.—In March, 1902, Dr. Albert Kohn, of this city, requested me to see Miss N. in consultation for the purpose of determining the nature of a growth of the clitoris. He told me that he had had her under observation for a few months and that the growth in its initial stage resembled a pimple. When I saw her, a hardened mass of the size of a hazel-nut occupied the region of the clitoris. There was a certain amount of induration of the right labium minus. There were a few glands in the groin. I advised, and performed, wide excision of the clitoris and the labium. Primary union resulted. The report of the pathologist was epithelioma. After a few months, the woman died of general carcinosis.

CASE 2.—Seen in consultation with Dr. Henry Griswold, of this city. The woman was aged over sixty, and the clitoris was occupied by a growth the size of a small walnut. There was no glandular involvement and the labia were free. Wide excision was performed. This was in 1903. The report of the pathologist was epithelioma. In September, 1907, I saw the woman again and there was recurrence in the same region, but still no glandular involvement. I again excised the growth widely; and up to date, February, 1908, there has been no recurrence.—*Surg., Gyn. and Obstet.*

### Myoma of the Uterus.

Martin (*London Lancet*) discusses myoma of the uterus. Hemorrhage from the uterus is the commonest symptom of myoma, and is present in the great majority of instances. It varies much in different cases. The nearer the tumor to the cavity of the uterus, the more severe the flooding. Thus in the subserous growths it is slight, in the interstitial it is profuse, and in the submucous and polypi it is excessive. In some cases there is constant dribbling of watery blood-stained fluid. It is rare for a patient to actually bleed to death from myoma. There usually develops a condition of marked chronic anæmia, which is the chief cause of the brown atrophy and fatty degeneration of the heart muscle, which occurs in many cases of neglected fibroid. It is also the main factor in producing thrombosis and phlebitis of the veins of the pelvis and lower limbs, and secondary embolism of the pulmonary artery. Uncomplicated myomata do not, as a rule, give rise to much pain—never anything approaching the agonies of cancer. Most patients complain only of discomfort and uneasiness. But other complicating lesions, such as adherent and inflamed ovaries and tubes, may cause severe pain. The pressure symptoms are numerous and may call for surgical treatment. Among them may be mentioned constipation, hemorrhoids, varicose veins of the legs and vulva, neuralgia, sciatica, and even retroflexion or complete prolapse of the uterus. But the more serious and distressing group of symptoms are those due to pressure on the urinary organs. Retention of urine, either sudden or of gradual onset, is quite common. It is generally due to a fibroid on the posterior wall of the uterus, retroverting the uterus, and pushing the cervix forwards against the pubes. Cystitis seldom occurs as a result of myoma, except by infection through a dirty catheter. Pressure on the uterus is most apt to develop where the tumor is developing in the broad ligament. Disease of the uterine appendages frequently complicates myoma. Myomata are peculiarly liable to various kinds of degeneration, secondary changes being found in about twenty per cent. of the cases. They may be divided into three groups: (1) Non-malignant degenerations without necrosis, occurring in about fourteen per cent. of myomata; (2) non-malignant degenerations with necrosis, occurring in about four per cent.; and (3) malignant degenerations and complications, also occurring in about four per cent. There are three modes by which a "natural" cure of a myoma may take place: 1. A submucous fibroid may necrose or slough away, or it may be extended

through the cervix as a polypus and drop off. The risks are of course, much greater than the most formidable of the modern operations for fibroids. 2. A myoma may participate in the involution of the puerperium and disappear. This is very uncertain and is more apparent than real. 3. A natural cure may occur by the absorption and disappearance of a fibroid at the menopause. At one time this was looked on as a certainty, but as a matter of fact the presence of a fibroid delays the natural change of life, and instead of the hemorrhages ceasing at forty-five they may go on until the patient is well over fifty. Further, it is just at this period of life that the most serious forms of degeneration are apt to occur. Considering the safety and the certainty of cure offered by modern surgical operation, we are not now justified in advising a patient with a troublesome fibroid to wait for the menopause.—*New York Medical Journal*.

**Spontaneous Inversion of the Uterus.** A. W. ANDERSON, M.B.  
(EDIN.), DALBEATTIE, N.B.

In the *British Medical Journal* of April 11th, 1908, p. 865, is a note of a case of spontaneous inversion of the uterus in a primipara, with remarks on the rarity of its occurrence. Last December I was called to a case, and found that labor had been in progress for three hours. The presentation was a normal L.O.A. with os fully dilated. I had not long to wait before the membranes ruptured, and the child was born after one or two rather severe pains. When tying the umbilical cord I was surprised to find a large globular mass protruding from the vagina. I found that I had to deal with a completely inverted uterus with an adherent placenta. The placenta I detached *in situ*, and then replaced the uterus, having first given the patient chloroform. She made an uninterrupted recovery. The patient was a young woman aged 22, tall and very thin. She had had one child twelve months previously. I attended on this occasion and there was not any trouble.

**A Case of Retroversion of the Gravid Uterus.** O. E. HIGGINS,  
LONDON, N.

On April 8th I was called to a young primigravida (at the end of her third month), who was suffering from retention of urine. I found the cause to be acute retroversion. After emptying the bladder by catheter, I tried, without success, to rectify the malposition. I then inserted a small rubber ring, wishing, rather than hoping, that it might prevent the recurrence of retention.

A short time previously I had found a ring to be quite efficient in the treatment of retention due to the pressure of a fibroid; but in that case the uterus, though heavy, was free to move. The patient was directed to remain in bed and to adopt the knee-chest position frequently. She suffered no further inconvenience, and on April 11th I found that the pelvis was in the normal condition. Reviews of books quite lately published indicate that active treatment of this accident is not yet universally recognized as harmful. Until recently no one believed that the impacted uterus could escape unaided. How, indeed, should it escape? Impaction produces congestion, and congestion aggravates impaction. Clearly, then, the uterus ought not to release itself. Nothing can be more certain, except the fact that it does release itself—usually, if not invariably—*British Medical Journal*.

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## OPHTHALMOLOGY AND OTOTOLOGY.

IN CHARGE OF J. T. DUNCAN.

In a recent issue of *The Outlook for the Blind* appears a paper on "The Prevention of Unnecessary Blindness a Public Duty," by Dr. F. Park Lewis, Chairman of the New York Commission for the Blind, in which, after dilating on the prevalence of the blindness due to ophthalmia neonatorum, he urges the adoption of the plan approved by the American Medical Association, providing, first, for the enactment of laws, supervising the control and licensure of midwives by the Board of Health: requiring that they be examined and registered in each county, and that they be required to report each case of the disease occurring in their practice under penalty of forfeiture of license and fine; second, the distribution by Health Boards of circulars of advice to midwives and mothers, giving instruction as to the dangers, methods of infection, and prophylaxis of the disease; third, the preparation and gratuitous distribution by Health Boards of the chosen prophylactic; fourth, to obtain at stated periods from midwives and obstetricians a report of the number of cases of ophthalmia neonatorum, which have occurred in their practice during this period, together with a statement as to whether or not a prophylactic was used in each case.—*Jour. A. M. A.*

"The laws of Ohio . . . require the nurse, midwife, or person in attendance upon the infant, to report to a licensed

physician within twenty-four hours after it has been noticed the fact that this inflammation exists, and failure to do so is punishable by fine or imprisonment, or both. Neglect of early treatment may result in blindness within a fortnight." (See the May number of *THE CANADIAN PRACTITIONER*, page 316.)

Dr. de Schweinitz related the clinical history of two cases of Obstetric Injury of the Cornea, one examined immediately after birth, and another as a late result in an adult. In the first patient, a male baby, after a difficult forceps delivery, there was found a micro-shaped cornea, which had assumed the appearance of a kirato globus, with a deep anterior chamber and a diffuse haze of the cornea, thicker in the centre, and which occupied this tissue entirely, with the exception of a narrow rim above and below. . . . The baby died on the eighth day. Autopsy was forbidden.

In the second case there was a delicate, slightly dotted line opacity, 6 mm. in length and 14 mm. in width, in the posterior layers of the cornea, extending in a vertical direction. In other respects the eye was normal, and the vision, after the correction of a high astigmatism, was nearly normal. At the patient's birth instruments had been used, and in addition to the lesion of the cornea there was a scar, also caused by the forceps, 2 c.m. above the brow.

Dr. de Schweinitz briefly reviewed the literature of the subject, making special reference to the capital papers of Thomson and Buchanan and a comprehensive review of the entire subject by Bruno Wolff, and thought that more careful investigation of patients who came with high corneal astigmatism, especially if confined to one eye, might reveal this early lesion of the cornea as the etiological factor.—*Oph. Record*.

### **Furnishing Glasses for Poor Children.**

Investigations made in the Philadelphia schools last year by Dr. Wessels, a medical inspector working under the Bureau of Health, showed that many children were retarded in school progress because of eye strain or other eye troubles which could have been easily corrected by glasses. A large number of these children, however, were too poor to pay for glasses, even of the cheapest make. Some of them were provided with glasses by the School Nurse, from a fund collected for that object by the Visiting Nurse Society. A long-step in the direction of relieving many other children whose eyes are defective has recently been taken by Dr. Joseph S. Neff, Director of Public Health and

Charities, who obtained an appropriation of three hundred dollars from city councils to purchase glasses. The prescriptions will be filled by a local optician, and the words "Bureau of Health" will be stamped in the frames of the glasses, for identification in case they should be lost or stolen.

### **Cleansing Treatment of Chronic Middle-Ear Suppuration.**

W. S. Bryant, New York (*Journal A. M. A.*, September 14), has found, in twenty years' experience, that in the majority of cases, chronic middle-ear suppuration will yield to cleansing treatment. He includes cases in which the infected area is spreading and also those with acute exacerbations, both rightly considered very dangerous. The cases that do not yield, he says, are those in which there is so much caries that it cannot readily be removed by natural processes; those in which there is active otitis; those in which sepsis has spread outside the bone; those in which there is some special infection, such as syphilis or tuberculosis, and, lastly, those in which vital parts are involved, requiring immediate attention. In other cases, the essentials are proper drainage, and attention to the condition of the eustachian tube and the nasopharynx. If the drainage is sufficient and there are no collections of thickened material, dry wiping with boracic powder applications, gives satisfactory results. Cheesy material should be wiped out, or syringed out with a strong solution of bicarbonate of soda in neutral salt solution. If this is not sufficient, suction may be employed, and the serous exudate and possible hemorrhage act as an antiseptic wash and help to remove some of the solid particles. A persistent dirty discharge may call for peroxid of hydrogen followed by salt solution, alcohol or silver nitrate. Caries should be treated by cleanliness, and feeble granulations stimulated by silver nitrate. For this, astringents are advised. Several cases are reported in full and a tabulated statement of 30 consecutive cases is given.

### **Blindness and Death from Wood Alcohol.**

Total blindness may result from the inhalation only of wood alcohol (methyl alcohol), and death has been known to result from the same cause. A valuable article on the subject appears in the *Lancet Clinic*, by Louis Stricker. The first case referred to was that of a man employed to shellac the interior of beer vats (many of the shellac varnishes contain a large amount of wood alcohol). The man was overcome with the fumes of the

wood alcohol, became very ill, and had to be removed to his home. His vision became veiled, and by the following evening, 36 hours from the time he entered the cask, he was totally blind. He was seen for the first time three and a half months after blindness had set in. His pupils were dilated *ad maximum*; no reaction whatever. Media perfectly clear. Fundus showed no signs of retinal or choroidal disease. Discs pearly white. Arteries narrow, veins normal. Heart normal. Urine normal. Diagnosis: Acute optic atrophy from inhalation of wood alcohol.

There is no other form of total blindness in both eyes, and followed by optic atrophy, which comes on with such suddenness as that following methyl alcohol poisoning. It stands in a class by itself.

In another case the man, 44 years of age, varnished the interior of a large cask with wood alcohol varnish, remaining in the cask from 7 to 9.30 a.m., not protected in any way, did not have a sponge over his mouth and nose, became totally blind in eight hours. (The usual protection is a damp sponge over mouth and nose, but this was used in the first case quoted and did not prevent the blindness.)

Another case quoted was that of a man doing varnishing in a large apartment building, working in a small bathroom with window and door closed, was found dead on the floor with his brush in his hand. The coroner's verdict was heart failure. The real cause was never suspected; the firm of painters, fearing a damage suit, did not venture to give the information.

These are cases of acute blindness from the *inhalation* of wood alcohol. Blindness and death from *drinking* wood alcohol has been of more frequent occurrence, as is shown by the splendid article of Wood and Buller. They report 153 cases of blindness and 122 cases of death. They report three cases of blindness from rubbing wood alcohol on the body.

Cases of death and blindness from use of methyl alcohol still continue to be reported. It is to be hoped that the denatured alcohol bill enacted as a law by the last Congress will from now on remove the main reason for the use of wood alcohol, since the price of the denatured alcohol is the same or even less than that of wood alcohol.\*

The leading manufacturers of Columbian (wood) spirits say that prior to the enactment of the denatured alcohol bill they

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\*Denatured alcohol is pure grain alcohol to which has been added some blue coloring matter, 2 per cent. of benzine and 2 per cent. wood alcohol, so as to unfit it for drinking purposes and still leave it available for the arts.

manufactured and sold in the United States 100,000 barrels of wood alcohol per year, and that since the enactment of the bill their business has been practically "killed." They are now trying to establish a European market for Columbian spirits, where wood alcohol is largely used in the manufacture of aniline dyes, and, if unsuccessful, they will be obliged to dismantle their plant, which is now practically idle.

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## PEDIATRICS.

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IN CHARGE OF ALLEN BAINES AND W. J. GREIG.

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**Kernig's Sign in Infancy.** J. S. MORSE (in *Archives of Pediatrics*, March, 1908.)

This sign consists in the inability to extend the leg fully on the thigh, when the thigh is at right angles to the trunk; or to flex the thigh at a right angle to the trunk when the leg is extended on the thigh.

*Conclusions.*—Kernig's sign is almost never found in infancy, either in health or disease, except in meningitis. It is found so rarely in other diseases at this age that its presence in an acute disease justifies, as far as any sign can, the diagnosis of meningitis. It is never present, however, in some cases, and in many others is present only intermittingly. It occurs with equal frequency at all stages of the disease. It is more often present when the knee-jerk is increased than when it is diminished. It is of no value in the diagnosis between the tuberculous and cerebro-spinal forms.

Dr. Koplis, in discussion, said that he agreed with the writer that as a diagnostic element in forms of meningitis in infants under two years of age it is of very little clinical value. In tubercular meningitis its absence is the rule.

**Diarrheal Affections of Infants.** (KNOX, *Archives of Pediatrics*, April, 1908).

*Conclusions.*—An examination of the reports coming from the laboratory and from the bedside tends to establish certain facts and explain others before doubtful.

It can no longer be questioned that the true shiga bacillus does produce in culture media a soluble toxin, and that an anti-

toxin is produced in the blood of susceptible animals which is a valuable specific curative agent.

It seems also to be true that there are several other closely related strains of the dysentery bacillus which differ culturally but little from the original type, and less from each other, which are almost as pathogenic for laboratory animals, and which do not produce a soluble toxin, and against which no satisfactory antitoxin has been produced.

Children are susceptible to infection by all three forms, but experience has shown that infants are rarely invaded by the original shiga variety, and only after definite exposure to the disease in adults; but that strains of the dysentery bacilli (that ferment mannite) are more frequently found in infants' summer diarrhea.

It is, of course, recognized that gastro-intestinal affections with diarrhea can be brought on by indiscretions in diet, by mechanical and chemical means, and by other bacteria than the dysentery bacilli. It is true also that the dysentery bacilli may be present in the dyseta of infants exposed to infection without setting up any disorder until the patient's resistance is lowered.

Further study is needed to ascertain if there may not be found some clinical phenomena which can be more surely associated with infection with dysentery bacilli. The exact method of propagation of the disease also needs further investigation. It is quite possible that an antitoxin may be developed for the Flexner variety and its closely related mannite-fermenting organism.

**Aspirin Hemorrhagic Nephritis, Case of.** By MAURICE PACKARD.  
(*Archives of Pediatrics*, April, 1908.)

Edw. K. Normal child, 4 1-2 years old, was taken sick with rheumatic tonsillitis. Aspirin in gr. v. doses every four hours was prescribed, with ice spray as a local measure. After two doses fever subsided and the throat looked better, but the child looked worse. He was sleepy and edema was present in the face and over the tibia. Scanty bloody urine. Sediment showed blood casts with fragmentation blood cells, renal epithelium and leucocytes.

Aspirin was stopped, and after a few hot baths patient quickly recovered.

In a week's time the urine was normal. Another dose of gr. v. of aspirin was given to determine whether the hemorrhagic

nephritis was caused by the drug or whether it was an infectious disease with the tonsil as port of entry.

Although the urine was not as red as on the first occasion, albumin with blood casts and renal epithelium again appeared.

**Hygiene of the Eye in School Children.** (*American Journal of Obstetrics*, July, 1908.) Carhart.

*Conclusions.*—1st. The increase in late years in the number of children wearing glasses is not due to an increase in the number of weak or diseased eyes so much as it is due to the greater strain upon the function of vision necessitated by the more extended use of the eyes for close work in the complex civilization of the present day.

2nd. The normal child is born hypermetropic and without astigmatism. The myopic eye is either defective from birth or has acquired myopia from the excess of eye-strain usually through the "turnstile of astigmatism." Astigmatism is not congenital, but is practically always acquired by excessive eye-strain.

3rd. Kindergarten and primary work should be so arranged as to avoid strain upon the muscles of accommodation of the eye in the plastic years of childhood. Hence, sewing and all wearing exercises should be limited in amount, if not absolutely eliminated.

4th. Systematic study should be begun only when the delicate tissue of the child's eye is sufficiently formed to resist distortion on moderate use of the accommodation.

This means that prolonged close work should not be allowed until the age of ten or over.

5th. No young child should be encouraged to compete with its companions for prizes. Mental and ocular overstrain are the inevitable result of such a course.

6th. Many so-called lazy children are really suffering from uncorrected refractive error.

7th. Inability to concentrate the mental attention and deficient powers of observation are often caused by bad visual memory, the result of eye-strain.

**Peripheral Phlebosclerosis in Childhood.** (MARTIN, *Archives*, March, 1908.)

Recently the author, at the meeting of the American Association of Physicians, called attention to the frequency of the above condition in young adults. Recent observations show that it

may be found also in children from 4 to 15 years of age. Six children were examined and histological specimens obtained. (Cuts are given illustrating the condition.)

One case is given which may be taken as a sample of all:

, 13 years, convalescent typhoid, no history of rheumatism, nor did he show any other lesion of the circulatory system. Examination of the internal saphenous showed marked thickening, the vein feeling like a whip-cord from foot to thigh. A small portion was excised and a section made, which showed that there was very little lumen left in the vessel, owing to extreme hyperplasia of both intima and media.

These children were all in good health, were actively engaged in the ordinary occupations of the institution.

Blood pressure varied but little from normal. Whatever the cause, it is not uncommon, and one would fear great liability to thrombosis.

W. J. G.

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## THERAPEUTICS.

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### The Treatment of Pruritus Ani.

After fomenting the parts with hot boric acid or phenol solutions of appropriate strength, it is recommended in *Memento thérapeutiques des praticiens (Le Monde Médical)* to apply the following ointment:

R Oil of peppermint.....gtt. xv  
 Wool fat.....gr. xlv  
 Soft petrolatum  
 Olive oil .....āā ʒss

M

Following the application of the ointment a suppository should be used, the following being suggested:

R Oil of the broma.....gr. xlv  
 Cocaine hydrochloride  
 Morphine hydrochloride.....āā gr.  $\frac{1}{3}$  to gr.  $\frac{2}{3}$

M ft. suppositorium No. i.

If the itching is caused by thread worms, the following ointment may be applied night and morning:

R Calomel .....ʒi  
 Soft petrolatum .....ʒx

M

or better :

R Cocaine hydrochloride .....gr. xxx  
 Bismuth subnitrate .....ʒi  
 Soft petrolatum .....ʒx  
 M

In order to rid the tract of worms, calomel may be given in combination with santonin 1-6 of a grain of santonin being taken for each year of age.

If hemorrhoids are present, either one of the following ointments may be applied night and morning :

I.  
 R Carbolic acid .....gr. viiss  
 Ergotin  
 Extract of hamamelis .....āā gr. lxxv  
 Tincture of benzoin .....ʒiiss  
 Wool fat  
 Soft petrolatum .....āā ʒv  
 M

II.  
 R Iodoform .....ʒiiss  
 Extract hamamelis  
 Extract of hydrastis .....āā ʒiiss  
 Zinc oxide .....ʒv  
 Lime water  
 Linseed oil .....āā ʒv  
 M

The objectionable odor of the iodoform contained in the last formula makes the ointment difficult of application in some instances, and if necessary the iodoform may be replaced by salol.

In simple pruritus the application of a 1 in 40 solution of menthol in alcohol as a paint will be found useful.

Equally serviceable is the topical application of an ointment made as follows :

R Liniment of lime water .....ʒvi  
 Carbolic acid .....ʒi  
 M

**Antitussin.**

A. Briess shows that antitussin gave results which were satisfactory on the whole in a series of some 30 cases of pertussis. In most of the cases, in a decidedly convulsive state, he observed, sometimes very quickly, a marked reduction in the attacks as the result of the correct use of the preparation (a 5 per cent. difluor-diphenyl ointment). The vomiting usually ceased after a few days. In uncomplicated cases the majority of the patients in the convulsive stage were completely cured after 2—3 weeks. Similar cases, however, proved refractory to the antitussin treat-

ment; in these he succeeded with inhalations of pyridine and the administration of antipyrine. In paroxysmal cough of catarrhal nature, this author favors the use of antitussin, either by itself, or in combination with other drugs, especially since the external method of its application is convenient, and the remedy is harmless. He emphasises the necessity of rubbing the preparation into the skin with energy, in the fashion of massage.—*Merck's Reports*.

### **Iodopyrin.**

A new indication for iodopyrin is said, by Blumenthal and Weissmann, to be in arterio-sclerosis. If potassium iodide causes marked iodism, iodopyrin is to be recommended. It may be given for a considerable time without producing appreciable secondary actions; presumably the anti-pyrine component of the preparation acts in opposition to iodism, just as has been observed with sulphopyrine. Weissmann describes two cases of arterio-sclerosis in which he obtained satisfactory results by giving doses, first of 0.5 (gr. 8), later of 0.3 (gr. 5) and 0.2 grm. (gr. 3) three times a day for weeks. Iodopyrin is also said to have been of good service in a case of struma, and in intercostal neuralgia, occipital neuralgia, rheumatic inflamed joints, sciatica and herpes zoster.—*Merck's Reports*.

### **Arhovin.**

The therapeutic writings which have appeared during the past year on arhovin are uniformly favorable. N. Zorn and M. Weinberg treated a number of cases of acute and chronic gonorrhoea, acute urethrocystitis, gonorrhoeal cystitis, leucorrhoea, and gonorrhoeal vulvo-vaginitis; they obtained rapid improvement, the urine cleared up, the purulent discharge diminished, and the process of healing was accelerated as the result of treatment with arhovin. Internally they gave 1 or 2 capsules (containing 0.25 grm.) 3—6 times a day; externally they applied a 5 per cent. solution in olive oil. Occasionally the internal treatment alone was found to effect a cure. According to Stock, it is particularly appropriate in acute anterior urethritis, while there is severe inflammation and swelling of the lips of the urethra. Further, arhovin is indicated in complications, such as epididymitis, catarrh of the bladder, and especially in chronic gonorrhoea. J. Piket, A. Weiss and E. Schwarz have also obtained good results with arhovin in urinary practice. Its action, in their experience, in anesthetic, diminishes the secretion, and

it has also some effect in inhibiting the growth of the gonococci. As Schwarz found, however, it does not produce a rapid and complete disappearance of the gonococci whether it be given internally or applied locally. Still, it increases the acidity of the urine, and though entirely non-irritant, it certainly has a beneficial influence upon the first stage of gonorrhœa, and it is said also to prevent the disease becoming chronic. In addition to the oily solution, arhovin may also be applied locally in the form of bougies containing 0.05 grm. (gr. 5-6), or of vaginal balls containing 0.1 grm. (gr. 1 1-2).—*Merck's Reports.*

### **Medulla Ossium Rubra.**

K. Walko draws attention to a remedy which had not yet been used in the dietetics of gastric diseases, red bone marrow. It is said to have been of very good service especially in all conditions of gastric hyperacidity. The large amount of fat in fresh marrow was found by him to have a powerful inhibitory action on the secretion of acid, and it is completely digested by the bowel. The remedy is given instead of soup, freshly cooked on rusk, or with other food. It is very readily taken, and has no unpleasant secondary effects.

A contribution to the treatment of pernicious anaemia by red bone marrow is given by Gullan. In all the cases treated by him for years he was able to ascertain that the disease was due to a lesion of the digestive organs caused by microbic or toxic infection; under the action of arsenic, there was a diminution in the number of the red blood corpuscles. Fresh red bone marrow, on the other hand, within two months produced a considerable increase (up to fourfold) in the red blood corpuscles and in the hæmoglobin contained in them. The administration of the remedy during meals (spread upon bread) must be carried out perseveringly, even when there is vomiting, if a successful result is to be obtained.—*Merck's Reports.*

### **Digitalis Substances.**

A. Salvisberg established the interesting fact that among mammals those that chew the cud can stand comparatively large doses of digitalis leaves and digitoxin by mouth without showing any reaction. Thus, the stomach of the ruminants has the power of decomposing the active principles of digitalis purpurea, and rendering them harmless to the animal organism, so that the symptoms which appear in man and other animals after eating digitalis do not show themselves. If, however, the digi-

talis substances be introduced direct into the circulation of ruminants, the typical action of the drug is produced. Dotti found that digitalis powder, given internally, has an abortive action. After doses of 10 grm. (gr. 150) he observed the appearance of uterine pains, and mother animals suffering from pericarditis were delivered without assistance.

For human medicine, the communications of S. Ganser, A. von Bokay, and Stepp are worthy of attention. Ganser prescribed digitalis leaves in an infusion in delirium tremens, having observed that most delirium patients die through cardiac weakness. He gave doses of 1.5 grm. (gr. 24) of the drug per diem, by enema if necessary in case of special difficulty in giving it by mouth. By this treatment he obtained very good results.

Bokay considers it wrong to prepare infusions of digitalis leaves by heating; his observations have shown that the active substances in the drug lose part of their strength for therapeutic purposes when heated. In his opinion the best way is to macerate the digitalis with cold water for at least three hours.

Stepp deals with the question of how to make an infusion of digitalis keep; this is of special interest in prolonged digitalis treatment. He considers he has solved the difficulty by adding a little chloroform to the freshly prepared infusion: chloroform, like acetone chloroform (chlortone) has often been used for the purposes of preservation and sterilisation. He prescribes:

Rp. Infus. Fol. Digital. 1 : 150 grm. (gr. 15 : oz. 5).  
adde Chloroform. 25 m.

S. 1 spoonful every 1—2 hours.

or for prolonged digitalis treatment:

Rp. Infus. Fol. Digital. 2 : 100 grm. (gr. 30 : oz. 3 1-3).  
adde Chloroform. 25 m.

A spoonful 2—3 times a day.

The latter prescription is said to give astonishing results in vitium cordis and arteriosclerosis. For the first two or three days a spoonful is given three times a day, then a spoonful twice a day until a pulse rate of 72—68 is produced. The doses are then discontinued until the pulse-rate begins to rise again, in which case the further administration of one or two spoonfuls a day is sufficient, and finally all that is required is to give a spoonful once in four, six or eight d. s, to keep the pulse-rate down. In cases of idiosyncrasy for digitalis the author uses digitalen with advantage.—*Merck's Reports*.

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The fifth Pan-American Medical Congress will take place at Guatemala City, Central America, August 5-10.

## Editorials.

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### THE CANADIAN MEDICAL PROTECTIVE ASSOCIATION.

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The medical profession of Canada is greatly indebted to Dr. R. W. Powell, of Ottawa, for the magnificent work which he has done in connection with the Canadian Medical Protective Association.

The seventh Annual Meeting was held in Ottawa, June 9th. The President, in his address, stated that since the Association was organized, which was in Winnipeg in 1901, not a single case that the Association defended had been lost. He also said when the fact became known among the public at large that the physicians of Canada had at their back an organization of this character it was acting as a deterring influence against causeless litigation, and that year by year there were fewer actions brought against physicians.

The officers elected for the coming year were: President, Dr. Powell; Secretary, Dr. Argue-Fenton; Solicitor, F. H. Chrysler, K.C. During the seven years the Association has accumulated nearly \$3,000.

The membership is not as large as it should be, but is increasing from time to time. In 1902 there were 242 members; in 1903, 253; in 1904, 288; in 1905, 351; in 1906, 471; in 1907, 528, and 1908, 553. Out of the whole number for the last year there were 356 from Ontario, Quebec 62, Nova Scotia 24, New Brunswick 28, Manitoba 13, Prince Edward Island 2, Alberta 20, Saskatchewan 8, and British Columbia 40.

We learn from the President's report that a very important case arose late in the summer of 1907, where a prominent surgeon was sued for damages on the alleged grounds that he had caused to be removed important pelvic organs during a laparotomy, without consent and against her expressed wish to the contrary, prior to the operation. No charge was made that the

work was not skilfully done, so it amounted virtually to a case of trespass. We were able to rebut this trumped-up charge, but the case involved a serious and important principle very necessary to fight for, and we had the satisfaction of securing a verdict in our favor. A further troublesome case has just been settled in June after months of fighting. It is difficult to explain how such a case could get into court. The evidence at the trial showed wilful neglect and improper behavior on the part of a ward patient in the hospital. The surgeon made every effort to control the unruly patient and bring his case to a successful issue. The report says the fight was carried to the last ditch, and the committee went to infinite trouble to prepare the case for the defence, but the plaintiff failed to appear at the trial on June 1st, and the case was consequently dismissed.

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### ONTARIO MEDICAL COUNCIL.

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The Annual Meeting of the College of Physicians and Surgeons of Ontario was held in their new building, 170 University Avenue, Toronto, July 7-11, inclusive.

The President, Dr. W. Spankie, in his address, remarked that for less than \$21,000 the Council had obtained an edifice admirably suited to its purpose, and had been relieved from the anxieties of the old system of letting offices in its building. He also remarked that the new register contained 3,807 names of members, *i.e.*, 406 more than the former register.

The President welcomed two new Councillors, Dr. C. W. Hoare in the place of Dr. J. L. Bray, the present Registrar, and Dr. H. S. Griffin in the place of Dr. P. Stuart, resigned. The following officers were elected for the present year: President, Dr. S. H. Glasgo; Vice-President, Dr. Ed. P. Hardy; Registrar, Dr. J. L. Bray; Treasurer, Dr. Wilberforce Aikins; Prosecutor, C. Rose; Solicitor, H. S. Osler, K.C.

July 8th.—It was announced at this morning's session that at the last intermediate examination between 60 and 65 per cent. of the candidates failed to pass. Considering that the majority

of those who failed had already passed the primary examination with credit, the opinion was expressed that there must be something radically wrong; either the instruction given in the medical colleges was not sufficient or the examination papers were too difficult, or the examiners were not judicious in their decisions.

The following committee was appointed to investigate the whole matter: Drs. Ryan, Britton, Spankie, Gibson, Robertson, Moorhouse and Temple.

On motion of Sir James Grant, a resolution was passed endorsing the Food Inspection Bill recently passed by the Dominion Government.

A committee to consider the fifth year curriculum reported that, in view of the fact that the medical colleges had not yet had time to complete the details of their fifth year curriculum, it was deemed expedient that no action should be taken in the way of specifying additional work.

The names of 189 physicians have been struck off the register for non-payment of the annual fee of \$2. In many cases these are physicians who have left the Province, and all can be reinstated on the payment of arrears.

A committee composed of Drs. Britton, Moorhouse, Bascom, Klotz, Gibson, Adams and Griffin was appointed to consider and report at the present session on the advisability of securing reciprocity between the College of Physicians and Surgeons of Ontario and the General Medical Council of Great Britain, as provided for in the Medical Act of Great Britain.

Dr. Spankie, in his address, recommended the readjustment of electoral divisions. He said it was fourteen years since the present boundaries of the various ridings were established, and great inequalities existed, both in New Ontario and the older portions of the Province.

A committee composed of Drs. Bascom, Lane, Vardon, King and McArthur was appointed to rearrange the boundaries of the electoral divisions, and to ask the Provincial Legislature for legislation necessary to make such changes legal.

Drs. Glasgo, Hardy and Temple were appointed the Executive Committee for the ensuing year.

July 9th.—After an extended discussion, the following resolution was carried: "The attention of this Council has recently been called to the prevalence of crime against the unborn. Be it resolved, That when a detective becomes aware of such a case he be instructed to lay the case before the Prosecution Committee, who will, after careful inquiry, pass the evidence, when deemed advisable, on to the Discipline Committee for action."

In the afternoon it was decided to hold the next Annual Meeting on Tuesday, 6th July, 1909.

Dr. Starr moved to have the examiners meet after the examination to consider the marks given before they handed out the results. This was allowed to stand until after the reception of the report of the Special Committee which is dealing with the question of examinations.

July 10th.—A new committee, to be termed the Prosecution Committee, was appointed to act in an advisory capacity to the prosecutor. The following members of the Council resident in Toronto were placed on the Committee: Drs. Johnson, King, Britton, Hart, Hardy, Temple and Adams. The following were appointed members of the Discipline Committee: Drs. Robertson, Lane, Gibson and Henderson.

It was decided to hold a special session of the Council November 17th, 1908, for the purpose of dealing with the reports of the committees appointed to consider the examinations, the re-arrangement of districts and cases of discipline.

The Council then instructed its Discipline Committee to proceed at once to investigate the cases of Dr. D. Webster Shier and Dr. E. M. Cook, who were recently accused of performing illegal operations.

A communication from the West Toronto Medical Association was presented by Dr. Gibson, urging a much higher standard for matriculation in medicine. The communication was referred to the Education Committee.

The Council decided to hold a supplemental examination in Toronto, commencing the third Tuesday in September, 1908. Also to hold the regular spring examinations of 1909 in Toronto, Kingston and London, commencing the third Tuesday in May.

Dr. McCaul introduced the motion to eliminate from the annual published proceedings the reports of discussions. After some discussion, the motion was lost by a large majority.

An illuminated address was presented to Dr. C. T. Campbell, of London, a former President of the Council and a member of the same for twenty-five years. Dr. Campbell resigned from the Council in 1907 because of his appointment as Post Office Inspector to West London District.

A motion was introduced to add to the curriculum, after the words "four months in therapeutics," the words "including electro-therapeutics, hydro-therapeutics and massage." An amendment referring the matter to a special committee on examinations was carried, because it was not deemed expedient to place these subjects on the curriculum without further investigation.

July 11th.—The question of intra-Provincial reciprocity in medical registration was referred to the Education Committee.

The Finance Committee reported a balance on deposit to the credit of the Council of \$28,359 in the Sterling Bank, \$10,000 in the Bank of Montreal, and \$10,000 in the Bank of Toronto. The total assets are \$79,525, leaving a balance in favor of the Council of \$67,025.

The sessional allowance to the members of the Council was fixed at \$120, the session being computed to cover six days.

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## GOOD OLD TORONTO, SANITARY TORONTO.

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The press, the medical profession and the whole body of the citizens of Toronto are to be congratulated on the passage of the sanitary by-laws submitted to the citizens on June 27th, 1908. This marks an epoch for Toronto, and undoubtedly her example will be largely followed in the cities and smaller places round the Great Lakes and in the rest of Canada. Many elements contribute to this result. The good work done by Dr. Amyot, Dr. Sheard, Dr. Harrison and others began at last to take effect, and, though the vote was not large, when one considers the time of

year, the number of people absent from the city, the irreducible minimum of apathy, ignorance, stupidity and wrong-headedness to be found in all communities, the invariable power of the Law of Least Action, which keeps people away from the polls, and the number of that worst of all voters, the one who is "sure it will pass anyway," the result might have been worse. One gratifying feature in the campaign is the unanimity with which every organization in the city, almost without exception, held special meetings, even in the dog-days, to give a hearty support to the by-laws. Twenty or thirty organizations did this, among whom may be mentioned the University Women's Club, the Local Council of Women, the Argonaut Club, the Trades and Labor Council, the Guild of Civic Art, the Trustees of Toronto General Hospital, the University of Toronto, the Canadian Manufacturers' Association, and the Board of Trade.

And they were right, both from a medical and from a commercial point of view. Toronto's destiny as a seaport is waiting at her doors. The Canadian climate and water supply are unsurpassed in the world from a health point of view, and never will we allow filthy, stupid and uncivilized habits, forbidden by all sanitary laws, to steal away from us this our birthright. We must be clean, and a clean Toronto is now in sight.

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#### FATALITIES AFTER A SURGICAL OPERATION.

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The question as to the responsibility of surgeons for the death of patients who die during operations, or shortly after as the result of operation, has come up for discussion in London, England. A Miss Muirhead died in a London hospital after an operation performed by Sir Victor Horsley. The family physician, Dr. Biggs, stated that the lady became ill three years ago; she first complained of deafness and was sent to an ear specialist, and he agreed with her physician that it was due to central nerve disease. Next she saw an eye specialist, who found optic neuritis; then she saw a neurologist, who diagnosed it a cerebellar tumor and advised operation, which was performed by

Sir Victor Horsley after he had spent a considerable time on the previous day in a most exhaustive examination of the patient.

Dr. Biggs warned the patient that unless she consented to an operation she was certain of becoming blind, and that the operation offered her a mere chance. She decided to run the risk, the other members of her family concurring. The operation caused the patient's death. The attending physician gave the death certificate, which was taken to the Registrar, who later referred the matter to Coroner Troutbeck. Then, although there had been no complaint from the family, Dr. Troutbeck instructed Dr. Freyburger, a pathologist, to make a post-mortem examination. The funeral had to be postponed, causing the family much annoyance, and the inquest was ordered and held amid a chorus of protests from the Muirhead family, from Sir Victor Horsley and Dr. Biggs. The coroner took the stand that the friends of the family and the public in general have a right to know in such cases: (1) Whether the operation should have been undertaken; (2) if it was competently performed.

There is a difference of opinion in the matter. The *Times* backs up the doctors and thinks Dr. Troutbeck should be removed for officiousness. The *Leader*, on the other hand, thinks the coroner is a hero who has directed the attention of the public to an intolerable condition of affairs. Many of the surgeons state that if they are to be summoned to inquests every time a patient dies after an operation they will refuse to operate.

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### UNPROFESSIONAL CONDUCT.

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The College of Physicians of Ontario has on several occasions found great difficulty in proving that a physician has been guilty of disgraceful conduct in a medical sense. What is known as the Catford case is causing much interest in England at present. A young physician named Dr. Nicolas has been practising for some time at Catford, in the S. E. of London. We learn from the London letter in the *New York Medical Journal* that before commencing practice on his own behalf he had acted

as assistant to Dr. Atkinson in the same district, but no bond had been given, and there was no agreement between them as to restriction of practice in the neighborhood. The charge against Dr. Nicolas was that he had systematically canvassed for patients in Catford and had disparaged the professional skill and ability of his principal.

The General Medical Council of Great Britain took up the consideration of the case last November but gave no decision until June. After this protracted consideration the Penal Cases Committee returned a verdict to the effect that Dr. Nicolas was guilty of infamous conduct in a professional sense, and his name was erased from the register.

An appeal has been lodged against this decision. There is also a libel action pending in connection with the case. During the consideration of the case the Council's methods of procedure were attacked by Dr. Nicolas' legal representative and these criticisms will be carefully considered. As the matter is still *sub judice*, the English journals did not discuss the merits of the case. It is generally considered, however, that the judicial functions of the General Medical Council are beset by many difficulties. The very skilful defence of the case has greatly embarrassed the Council, and their ordinary business has been hampered very considerably. The expenses already incurred, and those that will be incurred during the trial of the appeal, will amount to a large sum. It is not improbable that the case may at any time be brought before the general law courts, and there is great fear expressed by many parties that the Council will be finally defeated.

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### THE BENEFITS OF RADIUM.

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On the evening of June 26th Dr. Louis Wickham gave a popular exhibition of radium and its curative effect, illustrated with limelight views, at the Laboratory for Radium in Paris. This demonstration was given by special request as a result of an article published in the *Figaro* some ten days previously,

written by a prominent physician under the *nom de plume* of Horace Bianchon. Through the courtesy of Dr. Wickham we were honored with an invitation, and enjoyed not only the lecture, but the novelty of Parisian enthusiasm, with a picked audience from the best of France: Ministers of State, Senators, Deputies, scientists, and cultured and fashionably gowned ladies. We give extracts from the article above mentioned, which was written in popular style, and not for medical readers particularly:

“Last Tuesday Dr. Louis Wickham and his assistant, Dr. Degrais, head of the laboratory of St. Louis Hospital, presented a great number of photos to the Academy of Medicine, which were taken before and after treatment, evidencing that it is possible to cure and cause to disappear those keloids which grow commonly on badly healed sears. It is the radium which works this wonder; the word is not too strong, for ten years ago such cures were not to be thought of. It is the radium of our glorious Curie, in the form of sulphate, or more commonly of radium bromide. It is mixed intimately with a kind of varnish, so composed that the rays easily penetrate it. A metal capsule contains this radiant varnish. During the time the doctors think fit the apparatus is placed and held in position with the surface which is to be cured. The patients feel no pain whatever; indeed if they have any, it is stilled. The treatment is easy, even children at their mother’s breast will continue sleeping during its application.

For a long time I have followed with the greatest interest the researches of Dr. Louis Wickham, physician to the St. Lazare Hospital. Archivist of the Society of Dermatologists, and administrator of the splendid museum of St. Louis Hospital, where for the last 20 years he worked with zeal.

A dermatologist of great merit, and one of the best pupils of Besnier, Fournier and Hallopeau, Dr. Wickham devoted himself a short time after the discovery of Professor and Madame Curie, to the study of the therapeutic action of radium. At first he undertook to observe thoroughly the effects of bromide of radium on epithelial tumors of the skin, on the superficial cancers of the

eyelids, the nose, the ears. He obtained unquestionable and durable cures. In tuberculosis of the skin and lupus he had equally fine results. But when he undertook to treat "plaques lie de vin, ces tumerous érectiles, ces naevi vasculaires, ces angomes caverneux," those "mother-marks," as one is used to say, which disfigure so many faces, he obtained marvellous results. Disappearance of the tumor, the returning of the tissues to a normal, or almost normal, color, and that without the formation of cicatrical tissue and without destruction of the integuments. It surpassed all expectations, so much so that in his report presented at the meeting of the Academy of Medicine on the 28th of January, Professor Fournier used even the words of the letter of Madame Sevigné about the marriage of the "great mademoiselle," to express his astonishment and his enthusiastic admiration.

In a profession so uncertain and deceiving as ours, it is a very rare stroke of luck to discover treatment so efficacious, so painless, and so convenient, that the babes can be cured during their sleep, and which allows an adult free to follow his daily work, with only a bandage to keep the small capsule of radium varnish in its proper place. It is only right and proper to call this discovery one of the happiest and most complete of modern medicine, and, moreover, the last word has not been said.

In the hands of workers such as Wickham and Degrais, Dominici and Faure-Beaulieu, men of scrupulous uprightness and untiring patience, radium appears to me to be called upon to do very great service to humanity. That is the opinion of most of the masters in dermatology.

W. H. B. AIKINS.

Toronto, July, 1908.

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Next year's meeting of the British Association for the Advancement of Science will be held in Winnipeg August 25th to September 1st, 1909. It is expected that the Dominion Parliament will vote a sum of \$25,000 for the entertainment of the visitors. The Council of the Association has nominated Professor J. J. Thomson, Professor of Experimental Physics, University of Cambridge, to be president of the meeting.

## CANADIAN HOSPITALS ASSOCIATION.

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The annual meeting of the Canadian Hospitals Association was held in the Parliament Building, Toronto, April 20 and 21.

After Miss Brent's presidential address, Dr. W. J. Dobbie, of the Weston Sanitarium, read a paper on "How to deal with Tuberculosis as a social problem."

It has been estimated, he said, that there are in Canada each year some 40,000 sufferers from tuberculosis, with about 8,000 deaths. In Ontario a conservative estimate gives 12,000 cases per year, while in the ten years from 1896 to 1906 there were 36,700 deaths, or 11 per cent. of the deaths from all causes. Figured out in dollars this meant an annual loss to the Dominion of \$24,000,000.

Having thus shown its ravages Dr. Dobbie mapped out a plan of campaign to fight the plague.

(1) Attention must be given to the care and disposition of advanced cases, (2) the recognition and treatment of incipient cases, (3) the prevention of the spread of the disease among the healthy members of the community. He suggested the organization of an executive council of prominent citizens, who would be assisted by sub-committees.

A special hospital need not be considered at the outset. The initial cost of such a hospital would not fall short of \$1,600, and the cost of maintenance could not, for a small number of patients, be made much less than \$1 per day. This made it too costly, and he suggested the work should start with free dispensaries, home classes, a visiting nurse, compulsory notification and registration.

To accomplish these various ends, education of the people is essential. In all educational work concentration should be on (1) the necessity for early treatment, (2) importance of fresh air, (3) avoidance of alcohol, (4) avoidance of the spitting nuisance.

Legislation might be needed, but he was sure it would be forthcoming. At present bulletins were sent out to instruct people respecting grain, and sheep and cattle. There was an apathy towards tuberculosis.

Dr. J. E. M. Gordon, of the Gravenhurst Sanitarium, opened the discussion.

On one point, he said, I would lay even greater stress than Dr. Dobbie, and that is the educational point.

I would go back to the Public School, so that in two generations, if not in one, the public would be informed of the danger. Gymnasiums had been taken up, and there were many over-trained consumptives as a consequence. The school itself has

been neglected. In rural schools too little attention is paid to the sanitary conditions. Furthermore the educational system should be along the lines of prevention. Educate the physicians, the patients and the children. We find that the tent colony has not been a success.

#### KEEP OUT DISEASE.

Dr. Kendall, of Gravenhurst, felt that the tuberculosis problem rested with the people at large.

The educative point, he said, is no doubt the first and greatest point.

He thought the nurses worked in a sphere where they could do much good, especially among the poor.

"Fortunately," he declared, "we do not know much about the really poor classes. But we should be careful to prevent the arrival of tubercular immigrants. I do not think we should have to take care of the victims of disease in the other countries."

Dr. Bruce Smith said. If we were to adjourn now we would have still been well repaid for coming together. But I think a question we might well discuss here this afternoon is: Are the general hospitals doing anything to care for poor tubercular cases? They say it is not their province. Then whose province is it? The sad fact is that many are allowed to die in want, not only in want, but are spreading the disease. We are not taking care of chronic cases.

He suggested that general hospitals, particularly in rural districts, should erect separate buildings by way of an annex, for the care and treatment of tubercular cases.

I believe, he said, the Government would be willing to give financial encouragement to any hospital doing this work.

He agreed that there was danger from the arrival of immigrants who were already victims of the disease, but he had been told only last week by Mr. Scott, of the Dominion Immigration Department, that all immigrants who showed any traces of disease would be immediately sent back.

Mr. J. Ross Robertson, when called on by the president, said. If the Government will supply the money I have no doubt the general hospitals and sanitoriums would be glad to do this work. I understand the sanitoriums have empty beds, but they have no money for maintenance. If Dr. Smith will persuade the Government to make an extra grant, I believe both the general hospitals and the sanitoriums would undertake the work.

Mr. Robertson then alluded to the danger from diseased immigrants.

My impression, he said, is that almost anybody can get into this country. That is the easiest thing in the world.

Speaking generally, he thought too much was left to private philanthropy. He suggested that the Government should vote \$100,000 more and give the hospitals a chance.

Dr. Helen MacMurehy then read a paper on the milk supply.

Your grandfather, I have no doubt, said Dr. MacMurehy, kept his own cow. That was long ago and was mentioned by way of contrast to the complications of the milk problem of the present day.

There are 1,129,000 cows in Ontario. The hospitals were the largest consumers of milk in the province and should insist on getting clean milk before they paid for it. Hired men were not always particular about having their hands clean.

Dr. MacMurehy then turned to the danger of disease from milk. She pointed out that tuberculosis was as prevalent among cows as among human beings.

This is largely a woman's question, she submitted. If a few women in each town would demand to know where their milk comes from, and then spend a day on the farm occasionally, I think we would have no more trouble.

Dr. MacMurehy had seen several boxes labelled "coloring matter for dairy purposes." She wondered what that was for and whither it was going. She opposed pasteurization as being unnecessary.

"At the suggestion of Mr. J. Ross Robertson," continued Dr. MacMurehy. "I took these specimens of milk, one from each can, in a certain hospital, using a sterilized dipper, and putting each specimen at once into a sterilized bottle. I took the specimens directly to the University Medical Building, arriving before 7.30 a.m., and placed them in the refrigerator. The specimens were examined without delay, and the report of the bacteriologist is as follows:

"No. 1—5,300,000 bacteria to one cubic centimetre.

"No. 2—8,100,000 bacteria to one cubic centimetre.

"No. 3—384,000 bacteria to one cubic centimetre."

"The Toronto hospitals all appear to get their milk from local dealers, except one hospital, which gets it direct from the farm.

"Between 8 a.m. and 12 noon on January 20, 1908, I procured specimens from hospitals B., C., D., and E. The temperature at 8 a.m. was 34 degrees and at noon 38 degrees. The bacteriological count was as follows:

"B.—14,800 to one cubic centimetre.

"C.—6,240,000 to one cubic centimetre.

“D.—1,250,000 to one cubic centimetre.

“E.—3,060,000 to one cubic centimetre.”

Ordinary pure milk should not have more than 600,000 germs in summer and 50,000 in the winter months, but the number often falls as low as 2,000.

We are behind in the matter of milk. We are behind the United States and we are behind Great Britain. Why? It is because we are too easily satisfied with ourselves.

“About ninety per cent. of the milk supplied to Toronto is not pure,” declared Dr. Robertson, of Ottawa. He thought, therefore, that Strauss’ system of pasteurization would be very beneficial in the hospitals.

Dr. A. D. MacIntyre, Superintendent of the Kingston General Hospital, read a paper on Fumigation.

#### CONTAGIOUS DISEASES.

Dr. Charles Sheard, Medical Health Officer, discussed the question of “contagious diseases in relation to hospital management.” He said it was unavoidable that patients should sometimes contract contagious diseases in hospitals. It was also true that at times there was a mistaken diagnosis on the part of the physicians. Furthermore there was a tendency amounting almost to carelessness on the part of physicians to send to hospitals acute maladies from places where contagious diseases prevail.

If I was conducting a hospital on sanitary lines, declared Dr. Sheard, I would put over the door the sign: ‘No visitors allowed.’ Visitors to public institutions are a nuisance and an annoyance. They are an annoyance because they bring in infections and there is no power on earth that can stop them. I don’t know every house in the city where scarlet fever or measles exist; no human mind could. It is only in the families of the rich where a physician is called in case of measles.

Thus a mother on Centre Avenue might have a child in the hospital and have another just recovering from measles. She takes the child free from the rash only a week and she goes to see the other child in the hospital. The result is that the trail is left behind.

Of all contagious diseases the most contagious is measles. It often breaks out more than once, it may break out frequently on the same patient. Hence measles was dreaded in public institutions. It spread so rapidly that one case admitted to a general hospital would likely be followed by 25 or 30 other cases. It meant death to some patient, if it followed some other disease.

Next to measles scarlet fever was the most contagious disease.

Then came the dread diseases of diphtheria and smallpox. As to the former he warned them to beware of the nasal diphtheria. Then smallpox. Terrible smallpox! Well, I would rather have smallpox in my hospital than any other contagious disease. There is no accounting for tastes, but that's mine. Why? Because you know just where you are. It is a lasting disgrace, that in this age there are those so lacking in intelligence as to relax the vigilance that demands that every child should be vaccinated as soon after birth as possible. You can curtail smallpox by vaccination, and by no other means.

In closing, Dr. Sheard presented in eloquent words the contrast between the public view of the hospitals 30 or 40 years ago and at the present. He attributed it partially to the great improvements in the hospitals, and he made reference to the new Nurses' Residence and the Hospital for Sick Children.

"When," he said, "we visit an institution such as we did last evening, and I take the liberty of mentioning this magnificent institution, which reflects the greatest credit on the medical profession of the province, an institution which is second to none in the world, with its magnificent wards, its sunshiny rooms, its spacious corridors, with all that skill and science and money can make them, with its capable staff and everything that refinement and gentleness can contribute, and when we remember that this institution is for the care of the poor, that its doors are open to the child who suffers, and who comes from homes where gentleness and kindness are submerged in the terrible struggle for existence; when we see all this we understand why public opinion with regard to these institutions is different to what it was 30 or 40 years ago.

Then we must remember that all this is possible only through the generosity and liberality of men who, though not members of the profession, have devoted their time and talents and money to this purpose. We are glad to have them present with us this morning, that we can tell them that their labors and their work are not unappreciated. When in future years we see their portraits on the wall, and remember what they have done, there will come again the message of this Easter-time:—"Inasmuch as ye have done it unto one of these, ye have done it unto Me." "

Miss Brent heartily concurred in all Dr. Sheard had said about contagion. Out of her own experience she called up incidents to corroborate the statements respecting the spread of measles and the danger from visitors. At the Hospital for Sick Children visitors were allowed only one day a week.

There is one point that has not been mentioned, said Mr. J.

Ross Robertson. Since 1897 this infectious business has cost the Hospital for Sick Children \$15,000. In cold, hard cash it has cost us \$15,000 because we have allowed visitors, and I think it would be a good thing for the community and a first-class thing for the hospital if the key was turned on every visitor, father, mother, brother, sister or anyone else while the child was under treatment. But a stream of visitors has poured in and out, and when it is so hard to get money we have had to spend \$15,000 because people were not careful.

#### PSYCHIATRIC HOSPITALS.

Dr. C. K. Clarke, who formed one of the Government commission to Europe to investigate the subject, made some observations on European psychiatric hospitals. He pointed out that it had been decided to erect a psychiatric hospital for the insane for Ontario in connection with the new hospital. He mentioned some of the features of European experience, as dealt with at greater length in the printed report.

But the only point I would like to throw out for discussion this morning, is that there is not a close enough relationship between the hospitals and the asylums. I refer particularly to the necessity for an interchange of nurses. A training in the care and treatment of mental diseases is as essential as the training in the treatment of other diseases in making up the well-equipped nurse.

I desire to congratulate Ontario, said Dr. H. M. Hurd, of Johns Hopkins Hospital, Baltimore, in opening the discussion, on the step it has taken in deciding on a psychiatric hospital.

He agreed that no nurse was absolutely trained unless she knew something about mental diseases, which constituted the highest form of nursing.

Dr. D. C. Meyers concurred that the psychiatric hospital should be as close as possible to the General Hospital. If it could not form part, he was glad it was to be erected adjoining. He thought, however, it would be injurious to mix the nervous cases with those more advanced, and he pointed out that 110 beds, the number proposed, would not be sufficient even for the nervous cases alone.

He cited the change of name to hospital for insane, and he also pointed out that less insane were to be found in the jails of the province this year than ever before.

There is now no necessity for even one patient to go to jail, said Dr. Clarke. He also stated in reply to another point that a hospital in Germany, which had only 110 beds, accommodated over 2,000 patients a year.

## HOSPITALS AND PUBLIC.

Hospitals are public utilities, declared D. T. Sutton, editor of the National Hospital Record, Detroit, in opening the discussion on Hospitals and the Public.

He said hospitals should be run in the interests of the public, and not of a few physicians. The day of close corporations in hospitals was past. He urged the hospitals and the public to get closer together and said the public should be furnished with full information.

Mr. J. Ross Robertson, resuming the discussion, referred to the difficulty of getting money. That was why hospitals had to accept \$5 a week from municipalities, when, as a matter of fact the patient cost \$10. That was why they advertised that \$5,000 would endow a cot, when \$10,000 was really required. He mentioned in this connection the generous donation of \$10,000 made by Cawthra Mulock after a visit to the Hospital for Sick Children. The Government was doing well, but soon must be persuaded to grant 30 cents per day instead of 20. He declared again drastic restrictive methods would have to be adopted to protect hospitals from visitors.

The following officers were elected for the coming year:

President, Dr. W. J. Dobbie, of Weston.

First Vice, Dr. A. D. MacIntyre, Kingston.

Second Vice, H. E. Webster, Montreal.

Third Vice, Miss Brent, Toronto.

Fourth Vice, W. W. Kenny, Halifax.

Fifth Vice, L. L. Cosgrove, Winnipeg.

Secretary, Dr. J. N. E. Brown, Toronto.

Treasurer, Miss Patton, Toronto.

## CURE OF INCURABLES.

Miss M. M. Grey, Superintendent of the Toronto Hospital for Incurables, discussed the question of the care and management of incurables. She pointed out the manner in which the aged or incurable were beaten or put to death in heathen lands. In this civilized country conditions were much better, but there was still room for improvement.

I regret to say, she observed, that we get more bedsores and evidences of neglect from other hospitals than from any other source. More hospitals were needed for the treatment of incurables in this country, and those we have should be enlarged.

## TRAINING OF NURSES.

Dr. Henry M. Hurd, of Johns Hopkins Hospital, Baltimore,

discussed the proper length of the period of training for nurses. First leaving out of consideration the exact length of any course, he pointed out some of the essential requisities. The course should be properly graded.

The third requisite should be the restriction of the amount of time spent in practical work to eight hours with two hours at least each day for study. Then there should be a preliminary training.

A course of three years is advisable only where shorter hours of service have been established and where the hospital is large enough to give a good training in all branches. In the matter of training the smaller and the larger hospitals should co-operate. Courses of training for nurses should be standardized and no one should bear the title of registered nurse who has not been fully trained in the various branches. Special private sanitarium or hospitals owned by physicians and maintained for their own patients should cease to operate training schools, but should supply themselves with nurses who have already received training. Nurses should not spend two years or even one year in a limited specialty.

A great deal has been said about the eight-hour system, remarked Miss Patton, in opening the discussion. I think this is an excellent plan in some hospitals where it can be adopted, but it is not the ideal system.

If nurses spent only eight hours on duty where would they be the remainder of the day? In her own hospitals the nurses worked only a little over eight hours a day. She thought the term could not be shorter than three years. In fact in some cases three years were too short. She did not think that a nurse should be allowed to graduate at the end of three years if she was not competent to be entrusted with human lives.

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The seventy-sixth Annual Meeting of the British Medical Association was held in Sheffield, July 24-31. The address in Medicine was delivered by Dr. J. K. Fowler, the address in Surgery by Mr. R. J. Pye-Smith, and the popular lecture on Dust and Diseases by Mr. Edmund Owen.

There has been an increase of over 2,000 students in the University of Toronto in ten years. The total number for last year was 3,545, of whom 1,774 were in Faculty of Arts, 754 in Medicine, 724 in Applied Science, 211 in Faculty of Education, 78 in Household Science, and 8 in Forestry. During the year two new Faculties were added, the Faculty of Education and the Faculty of Forestry.

## Personals.

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Dr. Andrew Gordon, of Toronto, sailed for Europe July 11th.

Dr. H. J. Hamilton, of Toronto, went to Manitoulin Island July 11th.

Dr. W. Spankie, of Wolfe Island, Ont., sailed for Glasgow July 18th.

Dr. Edmund E. King, of Toronto, is enjoying a holiday at Havelock, Ont.

Dr. T. G. Roddick, of Montreal, is spending a portion of the summer in Germany.

Dr. W. Hume Cronyn, of Toronto, is spending part of the summer at Murray Bay.

Dr. J. N. E. Brown, Superintendent of T. G. Hospital, sailed for England July 5th.

Dr. James Caven, of Toronto, is spending part of the summer at Lake of Bays, Muskoka.

Dr. G. Sterling Ryerson, of Toronto, is spending the summer at his residence in Sturgeon Point.

Dr. Chas. O'Reilly, of Toronto, will sail for Dublin August 8th, and remain abroad for two months.

Dr. W. H. B. Aikins has returned from Europe, and, resuming work, will engage in office and consultation practice.

Prof. I. H. Cameron and Dr. Clarence Starr sailed for England June 30th, and expect to return early in September.

Dr. Francis Shepherd has been elected Dean of the Medical Faculty of McGill University, in the place of Dr. T. G. Roddick, resigned.

Dr. Geo. A. Bingham, of this city, left July 15th on a trip to the Pacific Coast, and expects to return to Toronto about the middle of August.

The Hon. Dr. Pyne left Toronto July 10th to visit Great Britain and the Continent. He will study especially the methods of technical education, and also the methods of teaching the deaf, dumb and blind.

Dr. J. T. Fotheringham, of Toronto, announces to the profession that after his return from London, about September 1st,

he will confine his work to office and consultation practice and diseases of children.

Dr. Jennie Gray and Dr. E. R. Gray announce to the profession that they will remove from 263 Wellesley Street to 98 Carlton Street July 15th. Dr. J. Gray will in future confine her attention to consultation work and diseases of women.

Dr. Samson Gemmell has been appointed Professor of the Practice of Medicine in Glasgow University, in the place of Sir Thomas McCall Anderson, deceased. Dr. McCall formerly occupied the Chair of Clinical Medicine, and previous to that had acted as assistant to Sir Wm. Gardiner for some years.

Mr. Francis Mitchell Caird has been appointed Regius Professor of Clinical Surgery in the University of Edinburgh, in place of the late Professor Thomas Annandale. Mr. Caird was a dresser and clinical clerk under Lord Lister for several years, and is reputed to be very skilful, especially in abdominal surgery.

We are glad to learn from the *Cleveland Medical Journal*, the *Buffalo Medical Journal*, and several other medical journals in the United States that Dr. Chas. A. L. Reed, of Cincinnati, will be a candidate for a seat in the United States Senate in the place of Senator Foraker, whose term expires next March. We regret that Dr. Reed's numerous friends in Canada will not be allowed to vote.

## Book Reviews.

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PROGRESSIVE MEDICINE. A quarterly digest of advances, discoveries and improvements in the medical and surgical sciences. Edited by Hobart A. Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia, Physician to the Jefferson Medical College Hospital, etc. Assisted by H.R.M. Landis, M.D. Volume II. June, 1908. Philadelphia and New York: Lea & Febiger.

The contents of the second volume this year are: Hernia, by Dr. Coley; Surgery of the Abdomen, exclusive of hernia, by Dr. E. M. Foote; Gynecology, by Dr. J. G. Clark; Diseases of the Blood, Spleen, Thyroid and Lymphatic System, by Dr. Stengle; and Ophthalmology, by Dr. E. Jackson. All these articles are up to the standard set by *Progressive Medicine* many years ago, that is to say they are all of exceptionally high merit. We have had occasion to commend this quarterly so many times that it seems useless repetition to say again that it is beyond all doubt the finest thing of its kind in the English language. No practitioner who tries to keep up to date can afford to be without it. Everything he wants to know of work in the past year is told concisely and well by a master hand. Should he wish to read more fully, there is a good bibliography appended. If one is preparing an article for a journal there is no other place where he can get the facts so quickly. It is therefore, an absolute necessity to every up-to-date physician.

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DISEASES OF THE NOSE, THROAT AND EAR. MEDICAL AND SURGICAL. By W. Lincoln Ballinger, M.D., Professor of Otology, Rhinology, and Laryngology, University of Illinois, etc. Illustrated with 471 engravings and 16 plates. Philadelphia and New York: Lea & Febiger. 1908.

This is a complete and interesting book on a very important subject, and will be found useful for both specialist and general practitioner. The author gives a brief analysis of interdependence and co-ordination of the various organs and parts of the body, in order that the reader may obtain a proper comprehension of the relation of the nose, throat and ear to general medi-

cine and surgery. The elementary facts as to the breathway are described in a clear and interesting fashion. The etiology and treatment of inflammatory diseases of the nose and accessory sinuses are also well described. Equally able and clear are the descriptions of diseases of the throat and ear.

In order to give the general practitioner a fair idea of the scope of the book, we may say that all the operations, whether difficult or easy, are described in detail as to all steps. Most of these are really intended for skilled specialists. In addition, however, we have to speak in the highest terms respecting the chapters on everyday diseases and conditions, such as the following: Epistaxis, ceruminous plugs in the meatus, pharyngitis, tonsillitis, laryngitis, diphtheria, foreign bodies in the larynx, trachea, bronchi, oesophagus, adenoids, etc.

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DISEASES OF THE HEART. By Prof. Th. von Jurgensen of Tubingen; Dr. L. von Schrotter, of Vienna. Edited, with additions, by George Dock, M.D., Professor of Medicine, University of Michigan, Ann Arbor. Octavo of 848 pages, illustrated. Philadelphia and London: W. B. Saunders Company. 1908. Cloth, \$5.00 net; half-morocco, \$6.00 net. Canadian agents: J. A. Carveth & Co., Limited, Toronto.

Dr. George Dock, of the University of Michigan, is the editor of this magnificent work on Diseases of the Heart, and we can endorse all he has said in presenting this volume to the medical profession:

“Several excellent works upon diseases of the heart have appeared within the last quarter-century in Germany, and it seems strange that none of them was translated into English, especially strange when we consider the many and important contributions made in that country to the normal and pathologic anatomy of the heart, the physiology of the heart and circulation, the methods of diagnosis, the pharmacology of cardiac remedies, and the application of non-medicinal measures to the treatment of patients with heart disease. To be sure, all these discoveries were available to and utilized by American and English writers, yet it would seem of interest to see more directly how discoveries so important would affect the literature and the methods of treatment of those to the manner born. This can now be done with all the advantages and disadvantages of collaboration, and I think most readers will agree with me when I

state my belief that the lack of a simple division of the material and a common point of view is more than made up by finding in one book the sound learning and wide clinical experience of Professors von Jurgensen and von Schrotter and the deep and broad training in anatomy, physiology and pathology, as well as the excellent clinical observations of Professor Krehl.

“In accordance with the wise view of the editor of the series, I have not attempted many or radical alterations or additions. I did not wish to change the native flavor of the work, but tried to secure accuracy of language and of statement, to correct the few verbal errors that had slipped into the original, and to make the medicinal preparations conform to the U. S. Pharmacopeia.”

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## Selections.

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### The Anesthesia Problem.

Apparently a good deal of unrest is at present existent amongst the public, and probably also amongst the medical profession in regard to the dangers attending the use of anesthetics. Not a few fatalities consequent on the legitimate employment of these substances have been lately recorded. These fatalities are not confined to cases where general anesthetics were administered, but also have included cases of death from local anesthesia as well, and as the cases of deaths from anesthesia when occurring in public institutions are usually the subjects of a coroner's inquest, they are seized upon by the daily press, and by a certain section of the press considerable prominence and comment are attached. As regards deaths occurring in private practice from the use of anesthetics, it appears that it is not necessary to report them to the coroner, nor need mention of the circumstance be included in the certificate of death; hence, as Dr. F. J. Waldo, the Coroner for the City of London, has remarked in a recent letter to the medical press, there is no possibility of judging as to the number of fatalities in private practice as compared with hospital practice. Not only so, but as a coroner is not obliged to hold an inquest on a death resulting from an anesthetic, even when occurring in a public institution, it is evident that the accumulated statistics with regard to these deaths are very imperfect. Dr. Waldo thinks that the subject is of such importance as to demand the appointment of a Royal Commission with ample terms of reference, and that at all events it ought to be made compulsory that these deaths, wherever they occurred, should be reported to the Registrar-General.

In view of the scientific knowledge which has accumulated within recent years with respect to the action of the various anesthetics, and in view also of the circumstance that each of our hospitals has skilled anesthetists attached to it, it is certainly a matter for considerable anxiety that the percentage of such deaths remains as high as it is at the present time. It seems to be a moot point whether this mortality is due to the differences in the constitution of our present population, or whether it is due to difficulties in diagnosis, etc. At a time when chloroform was the only anesthetic used, and when it was employed in a more or less haphazard fashion, the percentage of deaths resulting from its use did not appear to be any more, if, indeed, it

was quite as high, as that which now occurs under anesthetics which are alleged to be safer than pure chloroform. It is no use going into the vexed question of the causes of fatal anesthesia. That is a matter about which physiologists continue to dispute, but there is one point upon which we may lay stress, and it is this: that in the case of hospitals, the administration of the anesthetic should be done by an anesthetist, who is also sufficiently expert in the diagnosis of those conditions of the heart and lungs which contra-indicate the use or the prolonged use of the anesthetic; though on the other hand, before the days of the professed anesthetist, the surgeon in charge of the case would see to it that a competent examiner certified the patient as safe to undergo the anesthesia. In the pre-chloroform days, the surgeon's skill lay largely in the rapidity with which he operated; but since the introduction of anesthesia, rapidity in operating has been deliberately, and, perhaps, culpably ignored. But apart from this, there can be no doubt that in many hospitals where numbers of urgent cases are regularly dealt with, it is necessary that the anesthetic be given by the house-surgeon, perhaps in somewhat rough and ready manner, and under conditions which are not favorable to its reception. In view of this fact, it might be as well to lay down a regulation that an apparatus for accurately measuring and regulating the supply of chloroform, etc., be in constant use. There are at the present time such appliances in use, but probably not as much as they ought to be. In the *Medical Magazine* for September, 1906, page 568, we described an apparatus of this sort, termed the Roth-Draeger Oxygen-Chloroform or Ether-Narcosis apparatus, which has already been very favorably reported upon by several of our leading hospitals. It professes to be an improvement on the dropping method, and has the advantage of not being complicated. During the administration of the anesthetic the patient inhales oxygen with the chloroform or ether.

At a discussion which was recently held at the Medico-Legal Society of London some very important facts and suggestions were made with regard to this subject, and it appeared evident, from the general tenor of the speeches by those who were eminently qualified to judge, that this whole question of anesthesia ought to be put on a more satisfactory basis. The profession would doubtless readily perceive the necessity of realizing this fact, and set itself to solve a problem which is of such vital importance to its own credit, and also to the general public, whose confidence it must maintain.—*The Medical Magazine*.

## Miscellaneous.

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### The Nurse Day.

Few wage-earners work twelve hours, or more, a day, and great as are the responsibilities of the nurse to the hospital, it should not be forgotten that the responsibilities of the hospital to the nurse are equally great. It is evident that the time is coming when these relations will need to be re-studied and re-adjusted. The petition of the nurses in the Toronto General Hospital for an eight-hour day is a sign of the times.

Moreover, it is a very serious indictment against hospital training that there is a general impression that nurses in the last year are broken down in health. We have no hesitation in saying that hospital nurses, as a rule, are worked too hard, and have too long hours, or, what is the same thing, not enough time off duty. An excellent symposium on this subject was published on June 1st, in the *National Hospital Record*. It seems to be the general opinion, as expressed in the *Record*, that two relays of nurses, with longer off-duty hours, say two or three hours per day, with a half-day each week, and special rest-hours for Sunday, is the best solution of the problem. The Superintendent at Toronto General Hospital, with all the difficulties of the situation before her, has succeeded in giving the 127 nurses now on duty there a half-day, beginning at 12.00 noon, each week, for the summer at least. The broader and more unselfish the outlook, both of the Hospital authorities and the Nurses, the sooner the situation will improve. There is not a little truth in the somewhat extreme letter which recently appeared in a Canadian paper, "Nurses as Martyrs." Yet in this occupation, as in every other, though there are martyrs, saints, and heroes, the great majority are good average ordinary women, and too much should not be expected of them.—*The Canadian Nurse*.

### Art and Prudery.

A certain London evening paper has lately broken out into a ludicrous excess of moral censorship. It seems as though a member of the staff of this periodical, whilst walking down the Strand a week or two ago, happened to look up at the new buildings of the British Medical Association, whose frontage had just been disclosed to the public view by the removal of

part of the hoarding. The distant vision of some of the eighteen statues which adorn these premises at once inspired him to write an indignant protest against their hideous immorality. Although the silly season is not yet due, the editor seems to have discerned by a flash of journalistic genius that the pose of outraged modesty has distinct possibilities even in the middle of June. From this point of view the editor and his staff must be congratulated on their foresight and enterprise, for they have provoked the man in the street to look for offence where none is, and have set the town talking about the "Strand statues." And what, after all are these statues? They are single, symbolical figures, some draped, some nude, placed at a height of forty or fifty feet above the ground, and totally devoid, in our opinion, of indecency, or immorality. Personally, we do not admire them as works of art, and in spite of the warm approval of many distinguished artists and critics, we maintain that several of them are ugly. But to find the remotest suggestion of impurity in these figures seems to us to presuppose in the mind of the observer, if not impurity, at least a talent for smelling out unintentional nastiness, which is even worse than prudery.—*The Hospital*.

### **Sugar.**

Sugar is often given a bad name from a physiological standpoint, but in many instances it is questionable whether it is deserved. It seems inconceivable that the bountifulness with which the world is supplied with sugar should mean anything else than that it is designed for human food. Sugar is one of the most powerful foods which we possess, as it is the cheapest, or, at any rate, one of the cheapest. In muscular labor no food appears to be able to give the same powers of endurance as sugar; and comparative practical experiments have shown without the least doubt that the hard physical worker, the athlete, or the soldier on the march is much more equal to the physical strain placed upon him when he has had included in his diet a liberal allowance of sugar than when sugar is denied to him. Trophies, prizes, and cups have undoubtedly been won on a diet in which sugar was intentionally a notable constituent. It has even been said that sugar may decide a battle and that jam after all is something more than a mere sweetmeat to the soldier. The fact that sugar is a powerful "muscle food" accounts probably for the disfavor into which it falls, for a comparatively small quantity amounts to an excess, and excess is always inimical to the easy working of the digestive processes. A strong