Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for scanning. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of scanning are checked below.

L'Institut a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation sont indiqués ci-dessous.

- ☐ Coloured covers / Couverture de couleur
- ☐ Covers damaged / Couverture endommagée
- ☐ Covers restored and/or laminated / Couverture restaurée et/ou pelliculée
- ☐ Cover title missing / Le titre de couverture manque
- ☐ Coloured maps / Cartes géographiques en couleur
- ☐ Coloured ink (i.e. other than blue or black) / Encre de couleur (i.e. autre que bleue ou noire)
- ☐ Coloured plates and/or illustrations / Planches et/ou illustrations en couleur
- ☐ Bound with other material / Relié avec d'autres documents
- ☐ Only edition available / Seule édition disponible
- ☐ Tight binding may cause shadows or distortion along interior margin / La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure.
- ☐ Additional comments / Commentaires supplémentaires:

- ☐ Coloured pages / Pages de couleur
- ☐ Pages damaged / Pages endommagées
- ☐ Pages restored and/or laminated / Pages restaurées et/ou pelliculées
- ☑ Pages discoloured, stained or foxed/ Pages décolorées, tachetées ou piquées
- ☐ Pages detached / Pages détachées
- ☑ Showthrough / Transparence
- ☑ Quality of print varies / Qualité inégale de l'impression
- ☐ Includes supplementary materials / Comprend du matériel supplémentaire
- ☐ Blank leaves added during restorations may appear within the text. Whenever possible, these have been omitted from scanning / Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été numérisées.

THE CANADA MEDICAL RECORD.

VOL. XVI. MONTREAL, OCTOBER, 1887. No. 1.

CONTENTS.

Original Communications.

UNCONTROLLABLE VOMITING OF PREGNANCY.

DELIRIUM, INDUCED ABORTION, RECOVERY.

By A. LAPTHORN SMITH, M.D., M.R.C.S., England, F.O.S., London, Professor of Medical Jurisprudence, Faculty of Medicine, University of Bishop's College, Consulting Physician to the Montreal Dispensary.

I was called to attend Mrs. ——— on the 16th Oct., 1887. *Previous History.*—I had attended her once before for painful dyspepsia accompanied with severe vomiting about a year ago, which was readily cured with bismuth and morphia. She had one child two years ago, and when she became pregnant with it, she vomited *nearly* everything she took during the first and second months; but she was able to be up a part of each day. She informed me that she had a severe labor, which was followed by puerperal fever and abscess of the breast, which kept her in bed several months. She suffered so much with this, her first pregnancy, that her husband generously resolved to abstain from any further sexual intercourse. In this resolve he persevered for two years, although with considerable difficulty, when one day he mentioned the matter to a friend, who told him he could have connection without endangering her life, provided he withdrew before emission. He had partial connection in this way several times in August, without fecundating her, for on the 21st August she menstruated as usual. His business then called him away until the 19th September, when he returned; but he unfortunately forgot himself, and the result was that she did not menstruate on the 21st Sept. A few days later she commenced to vomit so severely that she took to her bed and sent for her family physician, who during the next three weeks tried a great many remedies without avail.

Present condition—Very much emaciated. Pulse very weak—100. Temperature normal. Does not sleep more than an hour at a time, and has a haggard look. She moans and retches almost constantly night and day, bringing up mucous and bile, and sometimes a little blood. Does not dare to take any food. Has severe headache. Complains of a loathsome taste in her mouth. She is positive that she is not pregnant because of the precautions taken; but a bimanual examination of the uterus shows that it is gravid. It is somewhat enlarged; the body has an elastic feeling, and the cervix is pulpy, and the os slightly open. A specular examination reveals a granular erosion, the size of a 10 cent piece, on the cervix, which presents a dark, purple hue; the vagina is almost slaty in color, and the external organs are very red and sensitive. The breasts are not enlarged and there are no areolæ.

Diagnosis. Although her tongue was red and coated, and although she had already had dyspepsia with vomiting, and in spite of hers and her husband's assurance that she could not be pregnant, the feeling and appearance of the uterus made me feel sure that she was, and that this was a case of vomiting of pregnancy.

Prognosis. This was serious enough. Most of the usual remedies had been tried by her family physician during three weeks without avail, and I was convinced that unless I could put a stop to the incessant vomiting which prevented her from keeping down either medicine or food, and which

was just as constant whether she took anything down or not, I felt sure that she would soon die. M. Gueniot (Cazeaux, p. 468) collected 118 cases of which 72 recovered and 46 died. They were all serious cases.

CURED.

Without aborting and after an extremely varied treatment	31
After spontaneous aborting	20
After provoked abortion or confinement	21

DEATHS.

Without abortion	28
After spontaneous abortion or premature delivery	7
After provoked abortion	11

As the prognosis becomes more serious every moment we delay, these last 11 deaths might have been cures if abortion had been brought on before the woman's case became desperate.

Treatment Medical. I began with a mixture containing morphia, subnitrate of bismuth, acacia and pepsine. As it increased the nausea, I left the morphia out, and substituted acid hydrocyanic and spirits of chloroform. As she could not keep this down, I tried tablets of different kinds, but with no benefit.

Dietetic.—For several days before I saw her she had been taking milk and soda water; but she could not keep it down more than a few minutes. I tried milk and lime water, and she kept this in teaspoonfuls for two days, but she turned against it; beef tea she could not even swallow, and at last she was reduced to sucking small pieces of ice, which she vomited as soon as it became warmed. I then began rectal alimentation with peptonized milk and beef tea and a little brandy. She rallied a little on this, but the rectum becoming irritable she could not after two days retain it longer than a few minutes, and she was so low that I did not dare to introduce morphia with it.

Surgical.—I began by applying a blister to the epigastrium. I then cauterized the erosion on the os uteri with solid nitrate of silver. Both of these measures proved futile. She was now reduced very low. She was consumed with a burning thirst which she could not assuage. Her bowels had not been moved for many days, and she was distended with flatus, neither of which conditions were relieved by copious enemata, or turpentine stupes on the abdomen. She had a horrible taste in her mouth which made her loathe herself, and she prayed that she might die. Her temperature began to fall below normal and delirium set in, so that by the 23rd I felt sure that surgical gynecology alone could save her, and I determined to clear out the contents of the uterus. Whether the vomiting be due, as some think, to reflex irritation of the sympathetic nerves of the stomach due to pressure on its uterine filaments by the growing and distending uterus; whether it is due to hardness and lack of distensibility of the uterine walls; whether it is due to disease of the lining membrane of the uterus, which I think is the cause, or to disease of the ovum, I am convinced that the surest and safest way to put an end to the trouble is to turn the contents of the uterus out. This is the view held by Veit of Berlin, whom I witnessed performing the same operation for the same cause. Neither is provoked abortion in skilled hands an at all dangerous proceeding, if the preliminary dilatation of the uterus is performed with thoroughly aseptic tents and the uterus and vagina are kept aseptic both before and afterwards by means of frequent antiseptic irrigations. There is no danger from hemorrhage because the uterus will surely be made to contract by irrigation with very hot water.

On the 23rd Oct., therefore, I called Dr. Gardner in consultation, and he was perfectly satisfied that her condition was desperate, and that an abortion was an immediate necessity. The patient was placed on a table in Sim's position, and he introduced a carefully carbolized sponge tent, without the aid of ether. It caused very little pain; but when he removed it next day, the 24th Oct., it was constricted at the internal os which had to be further dilated with a Goodell dilator, in order to allow a large sized tupelo tent to be introduced. On the 25th the os was well dilated; the patient was placed on the table and the uterus and vagina well washed out with sublimate solution 1 to 2000. She was then anæsthetized with the A. C. E. mixture, which acted most satisfactorily, and Dr. Gardner skilfully removed the ovum and a considerable part of the uterine mucous membrane with spoon forceps. An irrigator with 1-5000 sublimate solution as hot as could scarcely be borne by the hand was in readiness with a Fritsch-Bozeman return flow uterine catheter attached, and the moment the ovum was removed, and while the blood was pouring out of the uterine sinuses, the catheter was introduced to the fundus, and the water turned on, when we had the pleasure of seeing the flow of blood instantly arrested, and the

uterus firmly contracted. The os and vagina were thoroughly insufflated with iodoform, and she was replaced in bed. The vomiting was not relieved by the dilatation, as has been held by some. She continued to vomit all that day, but has not vomited once since then. There was little or no hemorrhage after the operation, and the very next day she began to drink beef tea and milk in increasing quantities. She had no rise of temperature; in fact, to use her own words, she felt so much better that "it was like being in heaven." On the 12th Nov. she is up and well. The only regret that I had was that I had not decided upon the operation sooner. The perfect recovery was largely due to the minute antiseptic precautions employed.

Society Proceedings.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, June 10th, 1887.

J. C. CAMERON, M. D., PRESIDENT, IN THE CHAIR.

Dr. R. L. MACDONNELL read the history of two interesting cases which had recently come under his notice:

1 *Malignant disease of the Lung.*—A boy, aged 3 years, had appeared for some weeks to be suffering from shortness of breath, without any other symptom. At the first visit the whole right chest was found to be flat on percussion, and to present the physical signs of pleurisy with effusion. Aspiration yielded a negative result, nothing but a few drops of blood entering the instrument. These being examined by Dr. Wyatt Johnston were found to contain no pus, but an unusual number of leucocytes. Several further attempts at aspiration yielded scarcely better results. At one time about two ounces of pure blood were withdrawn. Dyspnœa became very urgent, and pressure signs, distention of thoracic veins, and œdema of the right side of the face set in. The child died after an illness of six weeks. An autopsy showed that the right lung was the seat of an extensive growth of alympho-sarcomatous nature. No other organs were found involved.

Discussion.—Dr. JOHNSTON stated that the tumor was a lympho-sarcoma. It was like a small, round-celled sarcoma, but with a number of lymph elements. The specimen showed the anomaly that, though sarcomatous, the cells were arranged in alveoli.

Dr. HINGSTON said the symptoms seemed to point to empyema, cancer is so rare in children. He also quoted a case of empyema that occurred about the same time, in which the first aspiration produced fluid, but the second gave none, the pus having become consolidated.

2 *Cerebral Syphilis.*—The second case was that of a married woman, aged 20, who entered hospital on account of "fits," which had occurred off and on during the last nine months. These attacks, one of which occurred in the hospital, consisted of clonic spasms affecting the left side of the face and left arm, and were preceded by a distinct aura. There was subsequent hemiplegia of these parts, with dragging of the left leg on attempting to walk. On the left side the reflexes were exaggerated and ankle clonus present. General intelligence was but fair, and speech thick. Optic neuritis was present in both eyes, with intense, but not localized, headache. Though no history of syphilis was to be obtained, a course of inunction with mercury was carried on to salivation. Dr. MacDonnell recognizing that the symptoms were the result of some lesion of the motor area of the right side of the brain, and that the most probable origin of such a condition was syphilitic tumor. The result was most satisfactory. Complete recovery of the paretic parts rapidly ensued, the headache disappeared, and after a month's stay in hospital the patient returned home in an excellent state of health.

Discussion.—Dr. STEWART stated that he was called to see the patient. He thought there were two points of great interest in this case. The first was that the onset of the symptoms seemed to point to a cortical lesion which was probably of syphilitic origin; the lesion might be a tumor or merely a thickening of the membrane. The second point to be observed is the greater value of mercury compared to potassium iodide in the treatment of cerebral syphilis. If the woman could have stood the effects of more mercury she would probably have got better sooner. He also called attention to the value of using an antiseptic mouth-wash. In Vienna mercury was rubbed in thirty times a month without saturation, because the patient's mouth was well washed.

Dr. CAMERON asked at what point could one determine when the mercury had reached its full effect, and when would it be advisable to resort to operation?

Dr. STEWART replied that if the disease was

syphilis, a complete cure might be expected; but if no effect was produced in six weeks, operative procedure might be considered.

Dr. HINGSTON referred to the efficacy of potassium iodide over mercury, in his experience. There is very little doubt of the superior efficiency of potassium iodide over mercury in syphilis generally why not in cerebral syphilis? He then referred to the difficulty of diagnosing syphilis even in cases where the lesion was visible, and quoted cases where it had been mistaken for malignant disease. He believed potassium iodide was a scavenger for the disease, and if it had no effect on any disease, that disease was not syphilitic.

Foreign body in the Bladder.—Dr. HINGSTON related an interesting case of this nature. An old man came into hospital complaining of frequent micturition at night, with pain and other symptoms of calculus. The lithrotite was introduced without preliminary sounding, opened and closed on something soft not attached to the vesical wall On withdrawing it, found a piece of sheet rubber; again introduced the instrument, and withdrew another piece, and afterwards crushed and removed a calculus that was there. Patient stated that he had been examined with an instrument in Chicago, where he was treated for irritation of the neck of the bladder. Probably part of the rubber catheter was left.

In reply to Dr. Gurd, Dr. Hingston stated that the rubber was very much incrusted.

Case of supposed Aneurism.—Dr. MACDONNELL related a case of supposed thoracic aneurism. There was great intrathoracic pain, and neuralgic pains in the course of the fifth and sixth nerves, requiring hypodermics to produce sleep. Patient had history and symptoms of syphilis. Complete relief was afforded by potassium iodide. There is now no pain nor any pressure symptoms, and patient is up and about the wards.

In answer to Dr. Gurd, Dr. MacDonnell said that potassium iodide gives wonderful relief in cases of aneurism. Would not say whether this was due to its antisyphilitic action or to its power of producing a clot in the sac.

Stated Meeting, Sept. 30, 1887.

J. C. CAMERON, M. D., PRESIDENT, IN THE CHAIR.

Drs. J. Stirling and K. Cameron were elected members of the Society.

PATHOLOGICAL SPECIMENS.

Dr. JOHNSTON exhibited the following specimens:—

1. *Enlarged prostrate, with bladder attached*, showing the beneficial effects of systematic catheterization. Bladder mucosa was quite normal, and neither the ureters nor the kidneys were affected, though the enlargement was sufficient to prevent the passage of urine except by the use of a catheter.

2. *Acardia*; a fœtus from the McGill College Museum, with the organs of circulation entirely wanting.

3. *A fibrous nodule*, found lying free in a pocket formed by an old pleuritic adhesion. The nodule was quite cartilaginous in consistence.

Dr. MAJOR exhibited his new instrument for the removal of growths from the vault of the pharynx. It works on the principle of the guillotine, and is a great improvement on the older forms of forceps, as the uvula could not be caught in the instrument, and most growths could be removed at one operation.

Dr. WILKINS, First Vice-President, took the chair, and

The PRESIDENT (Dr. Cameron) read a paper on *The influence of Leukæmia on Pregnancy and Labor*, which will appear shortly in the *American Journal of the Medical Sciences*. He said that after a careful search through the literature of the subject he had been able to find reports of only four cases where leukæmia was said to have occurred in the course of pregnancy, but in none of these had a blood-count been made, or the condition of liver and spleen carefully examined. No case has hitherto been recorded where a woman already leukæmia has been known to become pregnant. He then reported at considerable length a case which he considers unique. A woman, aged 36, married, was treated in Montreal General Hospital for leukæmia, in September, 1885, and at the same time her three months old infant and six year old daughter were found to be leukæmic. She became pregnant in March, 1886, her liver and spleen became enlarged and tender, and as pregnancy went on, dyspnœa and œdema became extreme, and her blood showed profound alterations. She had repeated attacks of epistaxis before labor set in, and became so weak and faint that her condition was really alarming. She was confined in the University Maternity Hospital on 29th October, 214 days after cessation of last menstrual period,

Her labor was perfectly dry and bloodless, and a scant slimy discharge for a couple of days was the sole lochial flow. Two hours after the birth of the child, the blood of both mother and child was examined, with the following result:—

Mother—Red corps, per c.mm., 990,000..W:R=1:4
Child— " " " 5,210,000..W:R=1:175

She made a rapid convalescence, and was discharged from hospital on the twelfth day, when her blood was found to have improved so as to register

Red corps., per c.mm., 1,900 000..W:R=1:35

The placenta was carefully examined, and showed remarkable and interesting differences in the quality of the blood at different parts:

Pl. Vein—Red corps., per c.mm., 4,60,000..W:R=1:173
Pl. Artery— " " " 5,410,000..W:R=1:270
Pl. Sinuses—" " " 950,000..W:R=1:36

The child, which throve nicely for a day, was clandestinely put by the patient to her own breast, and in a few hours a purpuric rash appeared and spread over the body, the child began to vomit and purge, and in four days died. Nothing special was found post-mortem. The patient regained her strength so completely that she was able to do heavy housework, wash and scrub, iron, and drive a waggon to market. Early in May, 1887, she became again pregnant, liver and spleen began again to enlarge, her red corpuscles to decrease, and white corpuscles to increase, and the course of pregnancy is running along very similar to the previous one. She is being kept under careful supervision, and a number of interesting observations are being made which will be published in due time. In conclusion, Dr. Cameron summarized the points of interest in the case as follows:

1. *The family history.*—The grandmother, mother and brother of the patient have suffered from symptoms probably pointing to leukæmia. Two of her own children have had well-marked leukæmia; another is now in ill-health with diminished red cells and enlarged spleen. None of her children reach the normal standard of five to six millions of red corpuscles were c.mm. All of them have had jaundice. In this case there seems to be a strong *hereditary* tendency.

2. The enlargement of the spleen was first noticed by the patient at the beginging of her sixth pregnancy, and now both liver and spleen begin to enlarge when she becomes pregnant, while at the same time her red corpuscles diminish and white corpuscles increase.

3. During labor and the puerperal period, there was absence of hemorrhage or any appearance of blood.

4. After labor, the œdema and dyspnœa rapidly subsided, the red corpuscles increased and white corpuscles decreased, till her usual strength and vigor were regained, though the spleen remains considerbly enlarged.

5. The remarkably chronic course of the disease, and the recurrence of pregnancy (now the third time since splenic enlargement was first noticed).

6. The remarkable difference between the blood of mother and child and of the blood in the placenta, showing that the fœtal and maternal circulations were not only entirely distinct, but also that the child actually made red-blood in its body and lost it in the placenta.

7. The disastrous effect of nursing upon the child, causing purpura, vomiting, purging and death.

Discussion.—Dr. GEO. ROSS said that this unusually interesting case had been for some time under his care at the General Hospital. Her health at the time of her confinement was such that she required the most careful attention; indeed even a very moderate loss of blood at that time would have been most dangerous, if not fatal, to the patient. He could offer no explanation for the absence of blood at the time of delivery. He had a case in private practice where there was a very slight sanguineous loss at the time of delivery. This was a case of profound anæmia accompanying valvular disease of the heart, with œdema of the legs, violent palpitation of the heart, dyspnœa and general cardiac weakness. The loss of blood here was almost imperceptible. He thought that Dr. Cameron's case showed that heredity is not a strongly marked feature of the disease.

Dr. ARMSTRONG suggested that the apparent absence of sanguineous discharge might be due to the small proportion of red corpuscles in the blood; a proportion of one white to four red corpuscles would hardly look like blood. As pregnancy seems to have made the patient much worse, it becomes a question whether it would not be advisable to prevent a future pregnancy.

Dr. Ross thought the last question a very important one, but though deleterious to her

health, she survived, and has been remarkably well since. He did not think interference was called for in this case.

Dr. WILKINS agreed with Dr. Armstrong that the absence of blood may have been more apparent than real. In a case of acute pernicious anæmia, when there were only 1,050,000 red cells, the blood was but a very pale pink. If such a liquid were mixed with amniotic fluid, it would be very difficult to identify as blood.

Dr. JOHNSTON called attention to the close similarity in the condition of the mother's blood and that found in the placenta sinuses, and asked if the advisability of removing the spleen had been considered.

Dr. BULLER referred to the serious consequences to the infant which followed from nursing by the mother, and asked if the mother's milk had been examined.

Dr. CAMERON, in reply, said that the mother's milk was thin and acrid, and in a day or two dried up, so no thorough examination was made. Splenotomy was not considered advisable in the case as it is chronic. With regard to the question of inducing premature labor, he thought that nature would probably settle the question. The woman is again pregnant, but it is doubtful if it will go beyond the seventh or eighth month. If the alarming epistaxis were again to appear, he would be inclined to bring on an abortion to save the mother's life. The absence of blood at the birth was real, it was not apparent only, as the birth was almost a dry one; the placenta was glistening and the child quite dry, no fluid of any kind accompanied it. This case is alone in illustrating the effect of heredity; no mention is made of it in the literature of leukæmia.

Peculiar Cause of Blindness.—Dr. BULLER related a case occurring in his practice two years ago. A little girl had a squint eye quite blind; on examination, the optic nerve, or the place for it, showed a white patch with pigmented margin. He learned that when the child was born the labor was difficult and severe; instrumental aid was necessary. After birth it is said this eye was found out of the orbit, on the cheek, and was put back by the physician. Dr. Buller asked if any one knew of similar effects from the use of forceps.

Dr. CAMERON said he had seen the eye protruded almost beyond the lids from severe use of forceps not properly applied to the head.

Annual Meeting, October 14th, 1887.

J. C. CAMERON, M. D., PRESIDENT, IN THE CHAIR.

Drs. A. W. Campbell and J. H. B. Allen were elected members of the Society.

The Treasurer's report was held over to the next meeting.

The report of the Secretary showed that there were 18 meetings held during the year, at which 21 papers were read, besides reports of cases and exhibition of pathological specimens. The average attendance for the year was over 19.

Pathological Specimens.—Dr. JOHNSTON exhibited specimens from two cases of ainhum, sent by Dr. C. E. Gooding of Barbadoes. In each case a constricting band of fibrous tissue had formed about the proximal phalanx. The bones were extremely small and thin, and seemed atrophied. He also exhibited for Dr. Geo. Ross specimens from a case of chronic Bright's disease. The patient during life had shown marked dyspnœa. The pharynx, soft palate and epiglottis were enormously swollen through œdema, but from the absence of stridor it had been inferred that the chink of the larynx itself was not involved. At the autopsy the œdema was found not to actually involve the glottis, the rima being of normal dimensions, and both vocal cords and ventricular bands were free from œdema.

Dr. C. E. Gooding of Barbadoes was elected a corresponding member of the Society.

Periosteal Sarcoma.—Dr. JAMES BELL exhibited the thigh of a patient amputated at the upper third, and related the following history of the case: The patient whose leg was shown was a young man aged 18 years, a native of Montreal, and of Irish extraction. The growth began in April last as a small moveable nodule on the front of the femur, just above the knee. It grew rapidly and extended around the lower end of the femur. It was painless until recently, when he began to suffer from pains of a neuralgic character, chiefly in the foot (doubtless due to pressure on the nerves). As late as the 4th of June he walked to the Hotel Dieu Hospital, where he remained five weeks, and has never been able to walk since. He was admitted to the General Hospital about the middle of August, where Dr. Bell saw him for the first time. The whole lower end of the femur was then uniformly enlarged. It was clearly a periosteal sarcoma, and amputation was suggested. He took fright at the suggestion and went away,

but returned on the 30th of September. The growth had increased greatly in size during the six weeks which had elapsed since his leaving the hospital. His foot and leg were œdematous, and the neuralgic pains very severe. He was exceeddingly weakened, pale, and much emaciated, and his temperature ranged from 100-103° F. On Monday, Oct. 3rd, Dr. Bell amputated through the upper third of the thigh by the circular method. Since the operation his temperature has been perfectly normal, and his general condition has improved very much. The first dressing after operation was done on the eighth day. On section, the tumor was found to have involved the periosteum of the lower third of the bone, but had not invaded the interior. On examination, the epiphysis separated from the shaft and showed a diseased condition (apparently inflammatory) between these two parts.

Discussion. — Dr. JOHNSTON said that the microscopic section of the tumor, which was exhibited, showed the growth to be a round-celled sarcoma, showing here and there scattered among the round-celled tissue small transparent islets, within which a few branched cells could be seen (osteoblasts).

Dr. RODDICK thought that although on account of the man's condition it was probably wise to amputate in the upper third, as had been done, yet he thought that the surgical rule of removing the whole bone should, if possible, have been followed.

Dr. FENWICK did not agree with Dr. Roddick, and thought that in periosteal sarcoma, if the disease were entirely removed, there was no danger of recurrence in the stump, at least for a long time, and mentioned some similar cases which had occurred in his own practice.

Dr. BELL, in reply, stated that in the cases of this disease which had hitherto come under his observation, recurrence in the stump had never occurred, although in every case there had been an early recurrence in some of the fibro-serous sacs of the body—either the pleura, the periosteum, or the dura mater, chiefly the pleura.

RESOLUTIONS OF CONDOLENCE.

Moved by Dr. GEO. FENWICK, seconded by Dr. GODFREY:

Resolved, —"That the Medico-Chirurgical Society of Montreal has learned with deep regret of the sudden, although not unexpected, death of their late esteemed friend and associate, Henry Howard, M.R.C.S., Eng., the oldest member of this Society; that his regular attendance at our gatherings, his readiness to participate in discussions, and also the deep interest taken by our late associate in all scientific questions that came up before us, added greatly to the interest and attractiveness of these meetings; and that this Society desires to place on record the sense of the loss which has fallen upon them in his death."

Dr. GEORGE ROSS moved, seconded by Dr. T. G. RODDICK, "That the members of this Society extend to the family of the deceased their respectful sympathy in their present great bereavement, and that the Secretary be requested to forward a copy of these resolutions to the family of our late member, and also give copies to the city papers for publication."

Dr. PROUDFOOT then referred to the sudden death of Dr. Wm. Stephen in Buenos Ayres, and moved the following resolution seconded by Dr. T. G. RODDICK:

Resolved,—"That the members of this Society have heard with deep regret of the death of their late member and confrère, Dr. William Stephen, whose many good qualities and kindly disposition had endeared him to every member of the profession, and that a copy of this resolution be sent to the friends of the deceased."

ELECTION OF OFFICERS.

The officers of the Society for 1887-8 were then elected as follows:—

President, Dr. Perrigo. *1st Vice-President*, Dr. William Gardner. *2nd Vice President*, Dr. Guerin. *Secretary*, Dr. Ruttan. *Treasurer*, Dr. J. A. MacDonald. *Librarian*, Dr. T. D. Reed. *Council*, Drs. George Ross, T. A. Rodger and A. D. Blackader.

Progress of Science.

THE ADVANTAGES OF ANTIFEBRIN.

Mr. J. K. Murray recommends antifebrins as possessing advantages over other antipyretics on the following grounds (*British Medical Journal*, April 23, 1887):

Antifebrin seems much more powerful than quinine, kairin, or antipyrin. It equals antipyrin in the duration of its effects, and in this respect surpasses quinine or kairin. It is only excelled in the quickness of its action by the external

application of cold. Its effects are evident within an hour, and they last from ten to twelve hours when a full dose has been administered. When administered for a long time, the dose must be increased. It produces profuse sweating and redness of the cheeks; it diminishes the pulse-rate, and distinctly increases arterial tension. He found no depressing effects follow its administration, even when full doses were given. Antipyretics belong to two great classes,—namely, those which diminish tissue-metabolism; and secondly those which increase the loss of heat. From the sweating it produces and the rise in arterial tension, one might conclude that antifebrin belongs to the second class as well as to the first one. This might explain the quickness of its action, as antipyretics of the second class act more speedily than those which diminish tissue-metabolism.

IMPLANTATION OF TEETH—YOUNGER'S METHOD.

By F. Abbott, M.D., New York.

The operation to which I have the pleasure of calling your attention for a few moments this evening, aside from its mechanical features, is very little understood, even by those who have performed it the greatest number of times. That teeth which have been for a long time out of the mouth, and, as supposed, entirely devoid of life, are inserted into artificial sockets made in the maxillary bones in the mouths of human beings, and there remain, become firm, useful, and to all appearances as good and healthy as the adjoining teeth in the same mouth, there can be no doubt.

Operations in the same direction, such as the transplanting of teeth, *i.e.*, the removal of a badly decayed tooth, or root, and the placing of a sound one, previously taken from the mouth of another person, into the socket, and there held by ligatures for a time, until union of the periosteum upon the root with the tissues of the socket has taken place, have been done with more or less success, occasionally, for some two hundred and fifty years, possibly for thousands of years even. However, the first published statement in reference to it, that I am aware of, is to be found in the work of Ambroise Paré, published in 1634. He says: "I heard it reported by a credible person, that he saw a lady of the prime nobility, who, instead of a rotten tooth she drew, made a sound tooth, drawn from one of her waiting-maids at the same time, to be substituted and inserted; which tooth in process of time, as it were taking root, grew so firm as that she could chaw upon it as well as upon any of the rest. But, as I formerly said, I have this but by hearsay."

I say the operation of transplanting has occasionally been done. It probably would have been performed—and would be at the present time—more frequently, but for the fear many people have of being inoculated with some dread disease, should they have a tooth taken from another person's jaw and inserted in their own. I judge, however, that a hundred years ago people were less fearful of such a catastrophe. Judging from the every-day manner in which the operation is spoken of, it would seem to have been very common. I find in a small book entitled "A Practical Essay on the Human Teeth," by Paul Eurialius Jullion, Surgeon Dentist, published in London in 1781, in a list of "his accustomed charges," the following:

	£	s.	d.
Transplanting a living tooth.....	5	5	o
Ditto, a death tooth	.2	2	o

In the "Natural History of Human Teeth," by John Hunter; 1778, may be found a description of this operation, as well as that of replantation. It is from this work that the idea of "implantation" was first suggested to Dr. Younger. Hunter then recommended that a tooth be replanted when taken out through mistake, or knocked out accidentally, immediately, if practicable; if not, he would replace it even after it had been out of the mouth twenty-four hours, or "at any time before the socket began to fill up." To sustain his opinion that a tooth would become firmly fixed in its socket again, even after having been out of the mouth so long a time, he gives his own experience in replanting, and an experiment in implanting a freshly extracted tooth into a cock's comb as follows:

"I took a sound tooth from a person's head, then made a pretty deep wound with a lancet into the thick part of a cock's comb, and pressed the fang of the tooth into this wound, and fastened it with thread passed through other parts of the comb. The cock was killed some months after, and I injected the head with a very minute injection; the comb was then taken off and put into a weak acid, and the tooth being softened by this means, I slit the comb and tooth into two halves, in the long direction of the tooth. I found the vessels of the tooth well injected, and also observed that the external surface of the tooth adhered everywhere to the comb by vessels similar to the union of a tooth with the gum and sockets."

The replantation of teeth, *i. e.*, the replanting of teeth removed through mistake or by accident, and the removal of teeth for the purpose of enabling the operator more directly to treat chronic alveolar abscess, or difficult cases of pyarrhea alveolaris, and replacing them, has been practised by many dentists for a great number of years. Hunter speaks of replanting teeth removed through mistake or accident, as though it was at that time, and had been, a common practice. While the removal of teeth for the purpose of getting at and treating disease is a more modern operation, and, as a rule, anything but satisfactory in its results.

It was while reading the experience, recommendation, and experiment above quoted of Hunter that the question suggested itself to Dr. Younger, that, if a tooth would grow fast again in its own socket after it had been out of it twenty-four hours,

or more, and that a freshly extracted tooth would grow fast in an entirely foreign tissue such as a cock's comb, why would it not grow fast in an artificial socket made in the maxillary bone of a human being? Certainly the soil ought to be better suited to it than a cock's comb. After considerable reflection upon the subject he concluded to try it. This he did, I believe, first some three or four years ago, since which time he has done the operation some forty or fifty times (perhaps more), and, I believe, in the majority of cases, with marked success.

The operation is performed in the following manner: A tooth for the place is first selected, the pulp-chamber opened, and the pulp from that and the canal as perfectly removed as practicable, and the canal and drillhole are filled; it is then placed into an antiseptic solution (bichloride of mercury, 1 to 2,000). A cross is then cut through the gum to the bone, at the point where the socket is to be made to receive the tooth. The corners of the gum thus made are slightly dissected from the bone, and a trephine the size required is then inserted through the opening in the gum, and driven with the dental engine to within about a fourth of an inch of the depth desired; the remainder of the socket, owing to its tapering shape, is finished with different-sized and shaped burrs and reamers. When in the judgment of the operator, the socket is about the size and depth to receive the tooth, he tries it in; if the tooth fits as desired the operation is proceeded with, if not, the tooth is removed and the socket enlarged in this manner, cutting and fitting until the tooth stands in the socket in a correct position. The tooth is then removed and again placed into the antiseptic. The socket is now washed out thoroughly with the antiseptic, and the tooth placed in position. In some cases it is necessary to ligate it to adjoining teeth for a time, in others it is held as firmly as required by the impinging walls of the new socket. The gum over the tooth is then painted with equal parts of the saturated tincture of aconite root and the tincture of iodine. The pain attending the operation is caused chiefly by cutting through and dissecting up the gum, and the trying in of the tooth. This may readily be controlled by the application of a small quantity of muriate of cocaine crystals to the parts for a few minutes, before the cutting is done.

I may add that different kinds of instruments are used by different persons for making the socket, such as drills, spear-shaped burrs, etc., but those described are the kind Dr. Younger uses, and prefers to any others.

The question which more particularly interests us all, in connection with the operation of implantation of teeth, is, does a union of the bone and the periosteum upon the root of the tooth take place? So far it has been impossible to satisfactorily settle this question, as no one who has undergone the operation has felt disposed, after the lapse of sufficient time for the union to have taken place (if such be the case), to have the tooth removed even for scientific investigation. I have known of two, however, which have been taken out, one after three days and the other after five days from the time they were inserted, and it was thought in each case that a partial union had taken place.

From the fact that many of the apparently successful cases of Dr. Younger and others have been done with teeth which have been out of the mouth three, four, six, and in one of Dr. Younger's thirteen months, it would seem that it cannot be that any growing together of these tissues really occurs, but rather that the tooth is mechanically held in its new socket. I will now ask you, gentlemen, to examine a case which I have here, and as far as possible satisfy yourselves upon this point. The case is in the mouth of a colored man, Calvan Brooks; he resides in this city, is a hard-working, industrious man, but takes not the best care of his teeth.

Some four and a half years since, he had the right central incisor of the upper jaw extracted. After going without a tooth for some time he had a plate inserted with a tooth upon it (this, I believe, was renewed subsequently), which he wore, with more or less discomfort, until October 5, 1886, when at a clinic, a patient was wanted for Dr. Younger to operate upon. This man was requested to submit to it, which he did, and the operation was done as before described.

No tooth suitable for the place being at hand, one was obtained from the Colton Dental Association. When presented for insertion it was dry, so much so, that the enamel was as white as chalk, and the periosteum upon the root was apparently as lifeless as a bit of parchment. As near as could be ascertained, it had been extracted some three or four months previously.

In examining the case it will be observed that the tooth is even more firmly fixed in its new socket than the adjoining teeth, that the gum upon the labial surface and between the teeth presents a normally healthy appearance, while upon the palatal surface, on account of the removal of the amount of bone necessary for the reception of of so large a root, it has slightly receded. Its irritated appearance at that point is in a measure due to a slight deposit of tartar upon the neck of the tooth. It will also be observed that a thickening of the anterior plate of bone over the tooth has taken place, an apparent reformation of the alveolar process.

This tooth was not ligated to adjoining teeth, but was placed in position and allowed to take care of itself.

The instruments I have here are Younger's, with an improvement by Dr. W. W. Walker, of this city, who kindly loaned them to me to exhibit this evening. The improvement consists in a slight tapering of the trephine upon the outside. This prevents binding of the instrument while it is being driven into the bone. The burrs and reamers I have been unable to obtain. In summing up the subject, it would seem that there are but

two serious objections which can be offered to this operation, viz., the pain attending it and the danger of inoculation. As I have before stated, the former may be controlled, and it is believed that all danger of the latter is effectually removed by the use of antiseptics. This as yet, however, is an open question.—*N. Y. Medical Review*, *July* 9, 1887.

A CLINICAL STUDY OF ANTIPYRIN AND ANTIFEBRIN.

By G. Walter Barr, M.D., Bridgeport, Ill.

I am just convalescing from an attack of fever lasting five weeks, during which I made a careful study of antipyrin and antifebrin. The disease was neurasthenia complicated with malaria. My notes from observations taken every fifteen minutes for a long period of time would almost fill this journal, and therefore only generalizations are given.

The dose of antipyrin taken was at first 10 grains, which was increased gradually to 23 grains for a person of nervous temperament, who requires average doses of other drugs. Toleration of antipyrin increases after a week's use of the drug, and the dose must be constantly increased if it be used long.

Ten minutes after the ingestion of a dose of antipyrin in gelatin capsules, an aromatic warmth is felt in the stomach to a slight degree, and ten minutes later a glow seems to spread over the whole body, and is followed by sweating; and in a neurasthenic, irritable person, considerable tranquillity of mind ensued five minutes later. This psychological effect lasted half an hour.

In thirty-five minutes the temperature fell 1° F. The sweating gradually lessened, and ceased in two hours and a half after the drug was taken. In two hours from its ingestion the temperature had fallen about 3° F. This was regardless of the temperature when the antipyrin was taken, which varied from 101° to 105° F. However, it never lowered the temperature below the norm.

The above phenomena were constant. Almost constantly, about fifteen minutes after the dose was taken, the breath had an odor of ol. carui, sometimes very strong and often more faint. This lasted for about an hour.

The fever invariably began to rise in two and a half hours after the dose of antipyrin was taken, and the antipyretic effect was certainly only transitory. The after-effect was a general, indescribable feeling of greater *malaise*. The only effect on the pulse was its slowing, but the pulse was affected in great disproportion to the temperature, and became, on a basis of temperature, abnormally high, though absolutely lower. There was little or no change in the amount and gross appearance of the urine.

Antifebrin was used after antipyrin was begun, and at the same time alternately with the latter. The dose ranged from 5 grains to 13 grains. A tolerance was established to it. A number of times the same caraway odor on the breath was perceived, causing very interesting speculations as to the resultant of the corporeal chemistry upon both antipyrin and antifebrin. The aromatic, stomachic sensation was very seldom felt, the bodily glow and perspiration being generally the first effects noticed from antifebrin when the caraway breath is absent.

Antifebrin causes a fall of temperature in an hour or an hour and a half after its ingestion in gelatin capsules. The fall from one dose is about 4° F., though the norm was never passed in its downward tendency. The decline was maintained for an average of six hours, after which the temperature began to rise again. It has no permanent effect on the fever if its constant use for several weeks is a criterion. It gently stimulated the mind and affected the muscular system almost precisely like coca. I was several times as strong while under the influence of antifebrin as at other times, and intellectual indolence gave way to more energy. The tonicity of the pulse was increased and the rate slowed. Its effect on the pulse resembles that of convallaria majalis. Antifebrin is decidedly diuretic and less diaphoretic than antipyrin. There were no after-effects, not even the depression to be expected after the stimulation it produced. Once the dose of antifebrin had not the slightest physiological effect. The conditions were exactly the same as at other times, as near as I could discover, after very careful examination. An ordinary dose of antipyrin immediately acted as usual, and antifebrin afterwards did well. Perhaps some internal conditions hardened the capsule. Every dose of both drugs was taken in an empty stomach. My curiosity led me to wish for another failure that I might try another dose of antifebrin, but the opportunity never came. To sum up,—

ANTIPYRIN.	ANTIFEBRIN.
Lowers temperature in half an hour.	In an hour or more.
Effect lasts two hours.	Effect lasts six hours.
More diaphoretic.	More diuretic.
Depressing after-effects.	No after-effects.
Cerebral sedative.	Cerebral vaso-motor and muscular (?) stimulant.
Dose, 15 to 30 grains.	Dose, 5 to 15 grains.
Tolerance from continued use.	Ditto.

The above table will suggest the selective use of the two drugs. From the patient's point of view (which is really coincident with the physician's), antifebrin is much to be preferred in continued fevers, because the dose is one small capsule instead of three; the effect lasting so long requires one-third the number of doses; the tonic stimulation excels the depression and after-*malaise*, and the cost is one-fourth that of antipyrin. The antipyretic action of antifebrin is as strong or stronger than that of antipyrin, and its only objec-

tion is its slowness of action. In isolation, and other cases, where a quickly-acting antipyretic is necessary, and when it has a specific action on pathology of a disease, as is claimed in rheumatism, antipyrin is to be preferred. Whenever one can wait an hour for the antipyretic action to begin, I greatly prefer antifebrin, and I know the patient also. I believe its stimulant or tonic effect to be very valuable in weak patients.

THE THERAPEUTICAL VALUE OF BLOODLETTING.

But a few years ago it was customary to bleed too frequently, and almost every morbid condition was thought to demand bloodletting. Practically, we never resort to the measure now, perhaps because we do not consider to their full extent the advantages to be derived from it. From one excess we have fallen into the other. The disciples of the lancet bled according to a system; it was a formula. Their adversaries abstained by convention, not always by conviction; that, too, was a formula. There was error on either side. Therapeutical truth does not lie in a mere formula; it is to be found in facts proved clinically and experimentally, not in mere systems. It is in some such strain as this that M. Eloy calls attention, in a recent number of the "*Gazette hebdomadaire de médecine et de chirurgie*," to an important essay presented to the Belgian Academy by M. Fredericq, of Liège. The essay is a compendious summary of our knowledge of the physiological action of bloodletting, and embraces an attempt to establish definitely all the indications and contra-indications of this powerful therapeutical agent. Incomplete as it is, and as all such efforts must ever be, it nevertheless abounds in proofs that we ought to throw aside the prejudice occasioned by the abuse of bloodletting in the past, and once more avail ourselves of a measure capable of rendering such valuable aid. What there is still to condemn, in spite of the efforts made at times to re-establish it, is the bleeding in hæmorrhagic proportions resorted to by those enthusiasts who have been styled ironically "the great bleeders of past times."

As was said by Marshall Hall and some of his contemporaries, bleeding modifies more or less lastingly the respiration, the temperature, and the circulation, and affects the nutritive changes still more profoundly. The relaxation of the respiratory movements that occurs on opening a vein has been accounted for in many different ways. A hæmorrhage, provided it is not excessive, does not notably diminish the quantity of blood in either the general or the pulmonary circulation, the withdrawal of from half a pint to a pint, causing on an average the loss of from one two-hundred-and-fortieth to one one-hundred-and-twentieth of the weight of the body. It does, however, change the functional relation between the lungs and the heart, as has been proved by the elaborate researches of Embrodt and more recently those of Fredericq. The last-named observer has shown that a fall of pressure amounting to the relation of 1 to 2, or even 1 to 3, takes place after a loss of blood hardly equivalent to one one-hundredth of the weight of the animal; and Arloing and Vinay have not only confirmed this, but have proved in addition the permanence of the effect, as shown by the persistence of this lowered tension after the closure of the vessel.

As regards the influence of bloodletting on the temperature, putting aside the incontestable fact that great hæmorrhages produce a very considerable lessening of the heat of the body, we have Heidenhain's demonstration that the fall and rise of the thermometric column are synchronous with the corresponding changes in the mercury of the hæmodynamometer. A plausible deduction from this would be that bloodletting is justifiable in sthenic inflammations attended with hyperpyrexia, but a little reflection will show that it is not a deduction fully borne out. What we have most to fear from fever is its pernicious effect on nutrition, but bleeding also deprives the body of its tissue-forming elements; hence the ultimate results of both are the same. As has been said by Lorain, the fall of temperature following hæmorrhage is only temporary; it is a mere peripheral cooling. A remedy truly worthy to be called antipyretic, however, should be capable of affecting the heat-producing function, not merely axillary, vaginal, rectal, or buccal temperature—since the danger of the hyperpyrexia does not lie so much in the high temperature *per se* as in the nutritive changes of which it is merely the outward expression.

Bleeding modifies respiration. Is it indicated in pulmonary affections? Depletive bleeding should, according to the theory of those who employ it, diminish the initial hyperæmia of inflammation of the lungs by enabling the pulmonary to profit by a lessening of the general circulation—a bald hope, in the face of the fact, experimentally proved, that bleeding, within therapeutic limits, does not sensibly lessen the quantity of the blood. On this assumption, nevertheless, rests M. Bucquoy's recommendation to bleed in the initial stage of pericarditis, accompanied by grave phenomena—always, however, on the condition of its early employment in sufficient abundance, the fact being at the same time borne in mind of the danger incurred by the inherent feebleness of the cardiac muscle in this disease. On the same ground, too, M. Peter advises bleeding in cerebral congestion in robust and vigorous individuals, and M. Bouveret insists on the good results to be obtained by bleeding in capillary bronchitis and in emphysema. If we take this view, we can readily appreciate the value of bloodletting in the treatment of cardiac affections; indeed, the results obtained with it by some modern clinicians, such as Bucquoy, Jaccoud, Peter, Henri Huchard, and others, have at times resembled resurrections. In cardiac affections accompanied by extreme feebleness of the heart's action, bloodletting enables us to relieve the organ of a surcharge of blood exceeding its motive power. It is thus,

as has been shown by Huchard, in the "*Union Médicale,*" that digitalis finds its full action when its administration has been preceded by copious bleeding; the aim being to diminish the resistance of the peripheral portion of the circulatory apparatus and the embarrassment of the right heart. It re-establishes the equilibrium between the motive power and the mass to be moved. The therapeutic action of the heart tonics consists in augmenting the contractile force of the heart, and in reducing the volume of the blood by setting up diuresis. Drastics accomplish the latter part by increasing the intestinal secretions; bloodletting does it in a more direct way. Its employment is therefore rational in the treatment of cardiac affections, accompanied by insufficient contractions of the heart; and, according to Bucquoy, it is never in this way the cause of anæmia or irremediable cachexia.

What are the indications for bloodletting in over-action of the heart? In these cases, the heart's action surpasses its aim; the vascular pressure is augmented, and the patient is in danger of congestion, cerebral or pulmonary. The indications are to re-establish the circulatory equipoise. A vein is opened, and the systems are mitigated, to return after the renewed filling of the vessels by interstitial absorption. Shall we repeat the bleeding? Yes, if the general nutrition permits, and if other remedies fail. There is another class of cases—affections of the aorta, including aortitis and aneurysm—in which excessive vascular tension plays a part. Here conservatism is demanded, but there is no particular stage when the measure is specially applicable.

To sum up: Bloodletting should not fall into utter disuse. Weighty accusations have been brought against it, but let us allow only what is confirmed by modern scientific research—namely, its powerlessness in inflammations and in fevers, its dangers in chronic affections, and the obscure rôle it plays in neuroses and in eclampsia; while physiology, in spite of its gaps, teaches the therapeutist that the blood is always being renewed, that the stability of the circulation is not hindered by a moderate bloodletting, and that although a powerful modifier of the circulatory equilibrium, this agent has no other dangers than those that arise from its over-abundant employment, its excessive repetition, and its inopportune use. Physiology teaches us also that philosophy of this therapeutical measure, around which too much majesty and solemnity have gathered, is found not in systems, but in modest language, "Use, do not abuse!"—*N. Y. Medical Journal.*

THE PROPER EMPLOYMENT OF PREPARED FOODS FOR INFANTS.

By Victor C. Vaughan, M.D., Ph. D.,
Professor of Physiological Chemistry in the University of Michigan.

The feeding of infants, which for any reason are denied the mother's breast, has been, and continues to be, a question of great interest. Even the matter of the selection of a wet-nurse, where both money and opportunity are abundant, is one of the greatest importance, and, as all know, this method of securing nourishment for the child is not free from danger. First, there is often the dread that the nurse will convey to the child some constitutional disease. Then the nurse can hardly be expected to have that watchful solicitude for the child's health which is the peculiar characteristic of its own mother; and the most trusted servants have been found quieting the baby with opiates, and even narcotizing it with alcohol. Again, the nurse who offers herself only on account of the demands of poverty must often leave her own child to be fed artificially, and the question of the importance of infant feeding is only transferred in its application from the child of the mistress to that of the servant. Lastly, in a large number of cases, from want of a wet-nurse, obtainable at any price, or from want of money, the child must be fed artificially.

When the artificial feeding becomes necessary, of what shall the food consist? In this country, at least, we cannot obtain the milk of the ass or even that of the goat, in quantities sufficient to be used by many. I think that all will agree that cow's milk must continue to be the chief source of nourishment for children, and in a recent article in this journal. I endeavored to formulate certain rules for the better care of milk. As soon as the consumer demands it, the dealer in milk will conform to those or similar rules. The result of the application of the rule will not be to injure the trade of the dairyman; but the reverse will be true, inasmuch as his milk will be greatly improved in quality, and will command a better price.

In the article referred to I urged that no milk should be given to the child sick with cholera infantum or other summer diarrhœas. This prohibition applies to all prepared foods containing milk or to which milk must be added. Recently I obtained all the infant foods I could find in the market, prepared them according to the directions accompanying them, placed them in four-ounce bottles, making a duplicate test for each food, added some of the ferment which I had found would produce tyrotoxicon in milk, and kept the tightly stoppered bottles at a temperature of 38 ° C. for six hours, then tested the contents of each bottle for the poison, and found it present in every one of them. It should be clearly understood here that the poisonous ferment was added to the foods.

This experiment fulfills the conditions which would exist were a child sick with cholera infantum to be fed with one of these foods; provided always, of course, that my theory as to causation of this and kindred diseases in children is true. Some preparations of peptonoids and peptones, treated in the same manner as the infant foods, failed to develop the poison, at least, in quantities sufficient to be recognized by any chemical test. I may add here, that a similar experiment was made with milk which had

been boiled, and in this also the poison was developed. But in the boiled milk to which no ferment was added, as well as in the unboiled milk to which no ferment was added, the poison did not appear, at least within the six hours.

Now, from these experiments, I conclude that foods prepared from milk, or to which milk be added, are not suitable for children who are suffering from the summer diarrhœas. Just why the poison should appear in the milk preparations and not in the peptonoids, I cannot say. There are several possible explanations. The growth of the germ may simply be more rapid in one than in the other, and the difference in the development may be only one of time; but a difference of this kind is sufficient for all practical purposes.

Then have the prepared milk foods no legitimate use? I think they have, and desire to point out what I consider to be their proper employment.

Even under the most favorable conditions, milk can be kept unchanged only for a short time in summer. There is the same reason for the drying of milk and the preservation of its solids that there is for the curing of meat or the canning of fruit. The dried milk solids may be transported any distance and kept for any reasonable length of time, if properly prepared, without undergoing putrefactive changes. But they are to be used with children free from the summer diarrhœas rather than with those suffering from those complaints. Where the source of the milk supply is doubtful, a properly prepared milk food would be much more reliable than the raw milk. Besides, with any dilution or addition that may be made, cow's milk cannot be rendered identical with the milk of woman.

Can the milk of the cow be rendered more nearly identical with that of woman than it is by the simple dilution with water and the addition of milk sugar? All chemists, I think, agree that woman's milk contains more peptone than does the milk of the cow. Kirchner, who has given much attention to this subject, and has experimented largely, believes that the difference in the digestibility of milk from the cow and that from woman is wholly due to the larger amount of peptone in the latter. I cannot see, therefore, why the casein of the cow's milk should not be partially digested. That it should not be completely digested, I think there can be no question. It is certainly unscientific to feed any one for any length of time upon peptones altogether; especially is this true of children. To relieve the gastric juice altogether is to diminish its secretion. The muscle of the arm, the brain, and, indeed, every part of the body, is weakened by inactivity. The stomach can be no exception to this rule. It must have something to do, or will soon be unable to do anything. There may be, and doubtlessly are, exceptional cases, in which the temporary administration of peptones exclusively is desirable. But these are exceptional cases, and the administration of the completely digested food should be only temporary. Certainly these cases do not include healthy children. For these reasons I generally prefer the partially digested meat preparations to the peptones.

If this be true, will it not be sufficient for the nurse to digest partially the cow's milk as it is fed to the child? There are these objections to giving advice of this kind. If the source of the milk is doubtful, or if it has become contaminated by unclean vessels, or if putrefactive changes have already begun in it, the process of artificial digestion will not destroy the poisonous ferment. Indeed, the temperature at which the milk is kept during the artificial digestion will only favor the development of the poison. We have Dr. Holt's evidence that the use of peptonized milk is not to be recommended in summer diarrhœas. The artificial digestion, as carried out by the nurse, is not likely to be scientifically done. It will probably be neglected or amount to only a form, or it may be overdone, and the taste of the milk spoiled, and too great a proportion of the casein converted into peptone. If partial artificial digestion is to be practised at all, and I see no reason why it should not be, it should be done under competent direction, and when the milk is perfectly fresh.

Let us see what some of the most important properties of this prepared milk food should be. It should not contain any vegetable matter which is difficult of digestion.

This prepared milk food should be sufficiently nutritious in itself, and, consequently, should not require the addition of milk. In the use of all those prepared foods, to which the addition of milk is necessary, the same danger of introducing the poisonous ferment into the alimentary canal exists as in the use of the raw milk. Many of the prepared foods contain such small amounts of proteids that the addition of milk becomes necessary. They should contain a larger per cent. of milk solids, obtained by the evaporation of milk in vacuo.

Attention should be given to the amount of inorganic salts, especially of lime and phosphoric acid, in a prepared food. A proper amount of these substances is as necessary to the health and growth of the child as are fats, proteids, and carbohydrates.

The carbohydrates present in such a food should not be in the form of grape-sugar, but as milk sugar and dextrine. The grape-sugar is not supposed to have any specially injurious or poisonous properties; but it ferments too rapidly, and for this reason is objectionable. By roasting wheat flour its starch is converted into dextrine, and this roasted flour mixed with milk solids, obtained by the evaporation of milk in vacuo, forms a food sufficiently nutritious, and one which may be kept indefinitely without putrefactive changes occurring in it.

Prof. J. Lewis Smith, in his excellent work on *Diseases of Infancy and Childhood*, speaks well of the roasted flour; and this, added to milk solids, makes the best infant food known to the writer.

THE TREATMENT OF VARICOSE VEINS OF THE LEG.

Ordinarily, persons afflicted with varicose veins of the leg expect nothing more than some amelioration of their condition, or some means of getting along with it. The trouble is regarded as incurable, just as a hernia would be. For a hernia a truss is worn, and for varicose veins an elastic stocking is generally used. In many cases nothing whatever is done for varicosities of the leg, and the sufferer has to bear the distress, and run the risks of his condition as best he can.

If the veins are not very much enlarged, this may not be an unwise plan. But in a case in which the varicosity is very pronounced, the risks are too great to warrant letting the veins alone. The risk of ulceration, of rupture and hemorrhage, of phlebitis, of extension of the varicose condition, is so great that something ought to be done.

This something should consist in the adoption of proper medicinal, mechanical, or surgical treatment. Under the head of medicinal treatment may be classed the use of general tonics, the relief of constipation, and the employment of drugs, which act upon the walls of the veins Of these, none now enjoys a better reputation than hamamelis, strongly recommended to the profession for this purpose by Dr. J. H. Musser a few years ago. It can be given in teaspoonful doses of the fluid extract three or four times a day.

Mechanical treatment consists in the use of a well-fitting elastic stocking, which should extend from the heel to a point well above the highest dilatation, or of a carefully applied bandage. Martin's rubber bandage serves a good purpose, if well put on and if kept clean. It usually produces free sweating, but the discomforts of sweating can be much lessened by putting the bandage on over a clean white cotton stocking.

Surgical treatment of varicose veins consists in injecting them with some coagulating substance, in ligating them, or in excising a portion of them.

If injection be selected, it is best performed as follows: The circulation is controlled with an Esmarch's rubber tube, applied round the leg above the point where the injection is to be inserted, while the patient is standing up. At first only a few turns should be put on, in order to fill the veins up, and then the tube should be wrapped tight enough to cut off all the circulation. Then a single drop of pure carbolic acid should be injected into the veins at several points about an inch apart, and the site of each puncture should be touched with collodion and covered with a little cotton and collodion.

The Esmarch's tube should be left in position for fifteen minutes, and then be gradually removed, so as to avoid the risk of having an embolus swept into the heart. After the operation, the patient should keep his bed for at least a week.

The operation of ligation of varicose veins of the leg is best performed by distending them fully, and then slipping a strong cat-gut thread carefully under them and over them—passing in and out at the same openings on each side—just as is done in ligating varicose veins in the scrotum.

The operation of excision is the most radical and the most curative of all. To perform this operation, it is necessary to distend the veins with a bandage, to make a clean cut down upon them, and to pass a strong cat-gut ligature around the lowest point. The vein must then be seized above the ligature with a strong pair of forceps, and lifted up and cut off below the forceps. It is then stripped up, each radicle met with being ligated and divided, until several inches are clear, when the main vein is to be ligated at the highest accessible point, and cut off below the ligature. The wound should be treated aseptically, closed up, and covered with an aseptic dressing.

Several veins may be operated upon in this way at one time, and even both legs may be operated upon at once. After the operation the patient's leg, or legs, should be bandaged, and he should be confined to bed for eight or ten days.

This operation we can recommend to our readers, if it be performed with care and with correct aseptic precautions. By this we do not mean listerism, but the improved aseptic method of the present day.—*Philadelphia Medical and Surgical Reporter.*

THE INFLUENCE OF TEA, COFFEE AND COCOA ON DIGESTION.*

Dr. James W. Fraser, in a recent number of the *Journal of Anatomy and Physiology*, has recorded the results of an interesting series of experiments on the action of our common beverages on stomachic and intestinal digestion. His observations will, in the main, agree with that which is now given by our best authorities in cases of dyspepsia; and we are glad that experimental inquiries afford so strong a basis of support to empirical clinical observations:—

1. That it is better not to eat most albuminoid food stuffs at the same time as infused beverages are taken, for it has been shown that their digestion will in most cases be retarded, though there are possibly exceptions. Absorption may be rendered more rapid, but there is a loss of nutritive substance. On the other hand, the digestion of starchy food appears to be assisted by tea and coffee; and gluten, the albuminoid of flour, has been seen to be the principle least retarded in digestion by tea, and it only comes third with cocoa, while coffee has apparently a much greater retarding action on it. From this it appears that bread is the natural accompaniment of tea and cocoa when used as the beverages at a meal. Perhaps the action of coffee is the reason why, in this country, it is usually drank alone or at breakfast, a meal which consists much of meat, and of

* London *Lancet*, May, 1887.

meats (eggs and salt meats) which are not much retarded in digestion by coffee. 2. That eggs are the best form of animal food to be taken along with infused beverages, and that apparently they are best lightly boiled if tea, hard boiled if coffee or cocoa, is the beverage. 3. That the casein of the milk and cream taken with the beverages is probable absorbed in a large degree from the stomach. 4. That the butter used with bread undergoes digestion more slowly in presence of tea, but more quickly in presence of coffee or cocoa; that is, if the fats of butter are influenced in a similar way to oleine. 5. That the use of coffee or cocoa as excipients for cod-liver oil, etc., appears not only to depend on their pronounced tastes, but also on their action in assisting the digestion of fats.

THE USE OF INDIGO AS AN EMMENAGOGUE.

Dr. S. T. YOUNT, of La Fayette, Ind., in a paper read before the Tippecanoe County Medical Society, recommends very highly the employment of indigo as an emmenagogue. He writes: "It is perfectly safe, thoroughly reliable, and painless in its action. It is insoluble in water or alcohol, but readily dissolves in strong sulphuric acid. This so changes its character that it is then readily soluble in water without changing its color.

"It is odorless and tasteless, and may be given in doses of ʒj. to ʒss. The great difficulty is the nausea and vomiting which the crude drug produces when given in very large doses. There are three varieties of the crude drug: Bengal, Turkey, and Chinese.

"The Bengal is richest in coloring matter, containing about fifty per cent., and inasmuch as the virtue resides in the coloring matter, the best effects are obtained from this variety. As an emmenagogue it has been used in my practice about a year and a half. My attention was first directed to it on one occasion when I was called to remove a retained placenta in a case of abortion at the third month. Naturally inquiring what had been taken to produce the abortion, I was told that the lady had taken indigo in teaspoonful doses three times a day, that she had taken it several times, and always with a most satisfactory result to her.

"She informed me at the time that it always produced great nausea and watery discharges from the bowels. Acting on the suggestion offered by this case, I tried it in many and various cases. In one case, where a young lady, aged eighteen, had missed for thirteen months, the menses returned after taking the crude indigo for two weeks; but the disgust and nausea produced by the bulky powder rendered her unable to continue it longer, and she menstruated three more months; then they stopped again. After using the remedy for eight or nine months in this crude state, I set about to find some way of condensing it, or rendering it less bulky, for it is the bulk of the dose, not the remedy, that disturbs the stomach and disgusts the patient. About a month later Mr. O. G. Zerse, an apothecary of La Fayette, turned over to me a concentrated extract, as he called it, five grains of the extract equalling twenty-six grains of the crude drug. I have since then used it in forty-eight cases of amenorrhœa, of all kinds and causes, with but three failures, and a colleague has used it in six cases without any failure. To test its effect I have given the remedy in the amenorrhœa of phthisis, and have always had a definite result, namely, the appearance of the menses, the menses stopping again when the remedy was stopped. The effects with the crude drug and the concentrated preparation are identical, except that the nausea does not occur when the extract is used. The menses come on painlessly and very suddenly. There is no warning given. In thirty cases the effects occurred about two days after the last dose, the menses coming on without any warning, gushing out and running often to flow. The hemorrhage in none of the cases was dangerous or alarming. During the administration of the drug the os uteri becomes soft and patulous, admitting the end of index-finger. There is often a serous discharge from the vagina. The urine becomes of a brownish-green color and offensive odor. The stools are of a bluish color. The passages are watery and offensive.

"To summarize, indigo is an emmenagogue of decided value in any case. It should not be given to pregnant women. It should not be given where there is an irritable stomach. It should not be given in cases where there is a history of a previous pelvic inflammation. It should not be given in cases where there is marked cerebral anæmia. It may be given in doses of ʒj. to ʒss., two or three times a day, of the crude drug, or in five-grain doses of the concentrated extract. The powder of the crude should be given mixed with a little subnitrate of bismuth, and the patient should drink a little whiskey afterward. In cases where given continuously for a long period, give tr. gentian comp. after each dose. Give the concentrated extract in capsules mixed with extract of gentian and subnitrate of bismuth." —*N. Y. Medical Record.*

TREATMENT OF CHOLERA INFANTUM IN THE NEW YORK INFANT ASYLUM.

Dr. L. Emmett Holt holds that as pure air and proper feeding are the most important things in prophylaxis, so they are the most important in the treatment of this disease. Sick or well, there is no food for a baby that compares with good breast milk. If this is being used, or can be obtained, the quantity only needs to be regulated. Not more than half the child's allowance when well should be given; and if the stomach is very irrit-

able, all food should be withheld for half a day or a day, giving nothing but toast-water or thin whey to allay thirst. If a child has been weaned, or good breast milk cannot be obtained, cow's milk had best not be trusted, as it is so easily changed in hot weather, especially in cities and among the poor. In the country, where fresh milk can be obtained twice a day, it may not hold; but in the city, children certainly do better when milk is withheld, and other articles not so prone to fermentation are given. Chicken, beef, and mutton broths, expressed juice of roast beef or steak, wine-whey, white of egg shaken up with water, rice-water, barley-water, or the malted foods, koumyss, and in some cases raw scraped beef, are articles which may replace milk.

The first indication in every case, except true choleriform diarrhœa, is to clear out the bowels as completely as possible, by a good dose of castor oil, or by one or two grains of calomel in the form of tablet triturates. This will be sufficient to cure a large number of the milder cases, if taken early, provided the feeding rules laid down are carefully followed. In more severe cases, and in those of longer standing, a simple clearing out produces only temporary improvement; further measures must be taken to restore healthy action of the alimentary tract and stop decomposition. Salicylate of sodium, in grains j–ij doses, every two hours, or naphthalin in double the amount, we have found the most useful.

High temperature should be reduced by baths or cold sponging. It should not be forgotten that this may come from septic absorption from the bowels; if the temperature has risen coincidently with a great reduction in the number of discharges, a brisk cathartic will prove the most efficient antipyretic.

Cerebral symptoms may likewise be toxic, and, if so, should be treated in the same manner.

The object of treatment is not simply to arrest the discharges, but to restore their healthy character. Hence, opiates are not admissible at the outset, and never during the course of the disease when the discharges are foul and offensive. The retention in the intestinal canal of such matters, loaded with bacteria, can only result in harm.

Last summer, in this Asylum, a trial was made of the method of irrigation of the bowels with simple water or weak astringent solutions, in twenty-one cases. Only eleven were cured by this treatment alone. Although the results were not so gratifying as was anticipated from the accounts published in Germany, still some very bad cases did surprisingly well under it. It is certainly deserving of a more extended trial, as a valuable addition to our therapeutics.

True choleriform diarrhœa was treated in a few cases by hypodermatics of morphia and atropia; one or two yielded quite promptly; others, no more severe apparently, were uninfluenced by it.—*Med. News.*

THE PROPER SELECTION OF ETHER OR CHLOROFORM AS AN ANESTHETIC.

Dr. A. P. Gerster read a paper upon this subject before the New York Academy of Medicine, April 7, 1887. In approaching this subject, he said it was necessary to cast away all prejudice, considering it in a spirit of candid inquiry In the first place, it was to be borne in mind that both ether and chloroform were dangerous anesthetics. Researches with the aid of the sphygmograph, demonstrating the effect upon the pulse, had shown, however, that chloroform was infinitely the more powerful agent of the two. Still, this fact did not afford ground for the universal condemnation of chloroform, though it rendered greater caution necessary during any operation in which it was used. But, while chloroform was the more powerful agent, and consequently attended with more danger at the time of the operation, its employment was not followed by the secondary affections of the lungs and kidneys which were apt to result from that of ether.

The statement frequently made by partisan zealots, that ether is always and under all circumstances safe, was not true. In hospital practice it was found that in a considerable number of patients, particularly those addicted to the use of alcohol, it was exceedingly difficult to produce profound anesthesia with this agent, and in such cases, from the effect of the excessive and irritating mucous secretions excited, catarrhal or septic pneumonia was very apt to ensue. Admitting that, on the whole, ether was safer than chloroform, Dr. Gerster proceeded to speak of the manner of administration, and recommended, as superior to any other, that by means of Ormsby's inhaler. He then went on to say that ether was contraindicated in all affections impairing the renal functions, a circumstance the credit for first pointing out which belonged to Dr. Emmet. Having referred to cases showing the danger of ether when nephritis was present, he expressed the opinion that an examination of the urine should be made in every case before administering an anesthetic, except where the urgency of the circumstances precluded this; when, if Bright's disease was discovered, chloroform was to be preferred as the safer agent.

Ether, he said, was also contra-indicated where, in the aged or in young children, or generally in the feeble, there were catarrhal conditions of the air-passages. Having related three cases of his own practice, in which he claimed that fatal or dangerous pneumonia was set up by ether in patients suffering from cancer, he stated that, in the year 1886, three cases of pneumonia occurred after the administration of this agent in the Mount Sinai Hospital in, two of which the patients died, while in the third recovery took place. There were also five cases of severe bronchitis, arising under similar circumstances, reported during the year. Dr. Gerster said he had four more cases in

his notes, but, as these operations were performed either upon the trachea, larynx, or lower jaw, it was possible that the entrance of blood into the air-passages might, perhaps, have caused the trouble, and he would not therefore insist on these. As anesthesia by ether was dangerous in young children suffering from affections of the air-passages, chloroform was always to be preferred under these circumstances, although in healthy children ether was borne well.

The third class of patients in which chloroform was to be preferred was those who could not be satisfactorily brought under the influence of ether. In the incomplete anesthesia caused by it, there was an amount of muscular rigidity remaining, which constituted an inseparable difficulty in quite a large class of cases. Not only loss of sensation, but total relaxation of all the voluntary muscles, was indispensable in many operations; and, in spite of proper preliminary precautions, and the greatest amount of care in the administration of the anesthetic, in eleven cases out of one hundred and twenty-five, at the Mount Sinai Hospital, it was found impossible to produce with ether the complete anesthesia required. In all these instances, however, a change to chloroform was attended with the happiest results. Recapitulating, he said, then, that ether should not be used as an anesthetic in any case, (1) where acute or chronic nephritis is present, or is suspected to exist; (2) where there is any chronic pulmonary affection, especially in the aged or feeble; (3) where ether will not produce the complete anesthesia and relaxation indispensable for the successful performance of the operation in question.

Dr. Gerster then went on to say that, while in general the administration of chloroform undoubtedly required greater caution than that of ether, there was only one contra-indication against chloroform, namely, the presence of a fatty or weak heart. In the hands of a careless giver of anesthetics chloroform was, no doubt, more dangerous than ether, but Bright's disease offered no contra-indication to chloroform. In eight years' hospital experience he had met with but two cases in which pneumonia followed the administration of chloroform, and in both of these the probable cause of the pulmonary trouble was the entrance of blood into the bronchi. The existence of valvular disease of the heart, again, was not a contra-indication to chloroform, provided there was satisfactory compensation by muscular hypertrophy. On the other hand, if the heart were feeble from any cause, chloroform should never be used. In anemia, also, ether was, as a rule, safer.

He next spoke of the special danger of chloroform in cases of marked nervous depression, and said it should never be used when the patient was in a state of fright. It was a fact that most of the deaths from its use were in cases of slight operations, and he thought this was explained by the dread of the operation or the anesthetic. In severe operations the patient generally nerved himself for the ordeal, and hence there was less danger from this source.

On February 10, 1886, Thomas R., aged thirty-two years, consulted Dr. Gerster at his office, for a tumor on the lower part of the face. When an exploratory incision was proposed, he became so much alarmed that he begged for chloroform, which was not given at this time. Five days later he was admitted to Mount Sinai Hospital as a private patient, and on the 17th Dr. Gerster proceeded to operate on the tumor, which proved to be a glandular abscess. He subsequently learned that the patient expressed the conviction that he would never leave the operating-room alive. When two drams of chloroform had been administered, by means of Esmarch's mask, opisthotonos suddenly occurred, the pupils became dilated, and the abdominal muscles were found to be rigid. The pulse ceased, and within a minute the patient was dead, all efforts at resuscitation proving futile. The experience gained in this case, he said, had led him to administer stimulants and a small dose of morphia prior to operating in all cases, where the patient was not in perfectly good condition, and he would now never give chloroform to any one who was the subject of deadly fear. In every instance in which it was feasible, a careful physical examination should be made, and the probable prognosis duly announced to the patient or his friends before proceeding to employ this anesthetic.—*Boston Medical and Surgical Journal.*

THE COMPARATIVE ACTION OF ANTIPYRIN AND ANTIFEBRIN.

Although antifebrin has just come into use as compared with its fellow, antipyrin, little doubt exists that it is preferable to the latter. Aside from the results obtained by comparative tests at the bedside, more particularly by Eisenhart, as reported in *Münchener Med. Wochenschrift*, 1886, No. 47, and by Cahnand Hepp in *Berlin Med. Wochenschrift*, 1887, Nos. 1 and 2, the general profession has not reported as many untoward effects from its use as from antipyrin, while its cheapness, small dosage and reliability have already given it a place of high esteem among clinicians. Both Eisenhart and the French observers reach the conclusion that five grains of antifebrin are equal to twenty of antipyrin, and although this is somewhat below the estimate made by the profession in America, it so nearly approaches the results obtained here that the matter may be considered as settled. It will be remembered that the chief objection to antipyrin was that it was capable of causing profound collapse, as well as other minor, but scarcely less alarming, symptoms, and it should not be forgotten that antifebrin may produce the same result, if given in large doses in susceptible cases.

Many observers have noted the appearance of an exanthematous rash under its use, and *Munchener Med. Wochenschrift*, 1887, No. 3, reports cases in which deafness and mydriasis occured. These instances of untoward effects produced by antifebrin are fortunately sufficiently scattered to permit us to use the drug with great freedom. Indeed, the only manner in which the two drugs act identically, other than as antipyretics, appears to be the profuse sweat which they produce about the time of their absorption into the circulation.

Sudden cardiac failure has been produced by both drugs, and in a simple case of pneumonia, in which antifebrin was administered, which has come to our knowledge, the patient, apparently convalescing, while sitting up to bed talking to a friend, suddenly dropped back dead on the pillow. It is but just, however, to state that the patient had been a sufferer for many years from disease of the mitral valve, and as no post-mortem was allowed, the exact cause of death cannot be stated; although the attending physician, a man of good judgment, ascribed it to the drug, with sufficient reason in his own mind to prevent his using it but carefully a secone time.

The experience of the profession in this city has certainly engendered the belief that in a very large proportion of cases the newer antipyretic may be used with advantage in place of antipyrin, and unless some as yet undetected evil influence exerted by it is discovered, it will, without doubt, remain one of our chief aids in the reduction of abnormally high temperatures—*Med. News.*

THE TREATMENT OF COLDS.

Dr. Whelan, R. N., in a short article on the treatment of colds, says: It is recognized generally that catarrhs are excited *de novo* by exposure to wet, cold, and draughts; most frequently they develop in delicate and in highly neurotic individuals. When once a catarrh is properly established, the affected person's breath is infectious, in the acute stage of the disease at least. The question arises, What is the nature of the affection? 1. Is it a specific poison comparable to that of the infectious fevers? 2. Does the affection start as an idiopathic inflammation and develop a specific poison which is given off by the breath? 3. Is it of nervous reflex origin purely? An epidemic of influenza would be explained by supposing within large tracts of country all catarrhal micrococci become suddenly virulent, owing to some climate or telluric fostering cause, or to some law of heredity, or evolution of the organisms themselves. The usual coddling treatments of colds in an ordinary healthy person should be strongly condemned; there is a deal of wisdom in the saying "Starve a fever, feed a cold." A person with catarrh should take an abundance of light, nutritious food, and some light wine, but should avoid spirits and tobacco. In the very old or very young, or in cases where the general health is not good, due care must be taken, and above all things, depressants should be avoided. The author recommends as a specific, both as a prophylactic and therapeutic remedy, the following prescription: R quin. sulphatis, gr. xviij; liquor arsenical., M xij; liq. atropinæ, m. j; extract. gentian., gr. xx; pulv. gum acac., q. s. to make twelve pills. One of these pills should be taken every three, four, or six hours, according to circumstances. If these pills are commenced in the early stage of a common cold, when the affection is confined to the nose and pharynx, the affection will be nipped in the bud. At first one pill should be taken every three or four hours: later on every six hours. The author's experience goes to prove that a cold seldom lasts three days under this treatment, and believes that the remedy acts as a powerful nervine and general tonic, bracing the patient's tissues to resist the multiplication of the organisms which cause the affection.—*Practitioner*, March, 1887.

THE VALUE OF HÆMORRHAGE IN TREATING WOUNDS.

Taruzza publishes a note (*Gazetta Degli Ospitali*, April 13, 1887) to show that hemorrhage from wounds, unless due to lesion of large vessels or in excess, does not interfere with primary union. He does not think it necessary to follow strictly the rule to secure complete arrest of hemorrhage and to apply firm compression. He relies on perfect disinfection of the bleeding surface, as far is possible, by means of weak solutions of carbolic acid or mercuric chloride. After this he leaves the cavity of the wound full of blood, the edges being accurately sutured, and without fear that primary union will not result. From his experience he formulates the rule: "In wounds perfectly disinfected and free from foreign substances, effusion of blood is not a source of danger, but the reverse, as the effused blood fills the wound-cavity perfectly, preventing the formation of empty spaces, and making compression and drainage superfluous, and the organization of the clot favors union." He is opposed to the drainage tube, thinking that it increases risks of sepsis, and may remove from the wound fluids which, when aseptic, may be useful by reabsorption.—*Jour. Am. Med. Assn.*

A POINT IN THE TREATMENT OF CHOREA.

Dr. Flood, of Minnesota, says that he has almost constantly found tenderness on pressure over the fifth cervical vertebra in choreic cases. In these he applies the ether spray over the tender spot, and follows that with a mild counter-irritant. Then, with a judicious use of tonics and ergot he has generally been successful in the treatment.—*Chicago Medical Times.*

IRON AND SODIUM SALICYLATE IN RHEUMATISM AND RHEUMATIC AFFECTIONS.

By SOLOMON SOLIS-COHEN, A. M., M. D.,

Chief of Clinic, Out-patient Medical Department, Jefferson Medical College hospital.

For some four years I have been in the habit, in certain classes of rheumatic affections, usually chronic, of employing a combination of tincture of chloride of iron and sodium salicylate, prepared according to the following formula, which I have been informed by Dr. Rice, of Bellevue Hospital, New York, and other experienced pharmacists, is the first successful combination of these drugs in an eligible preparation. In the House Pharmacopœias of the Philadelphia Polyclinic, where it was first used in 1883, and of Jefferson Medical College Hospital, it is known as the Mistura Ferro-salicylata :—

℞. Sodii salicylatis,	ʒ iv.
Glycerini,	f ʒ ij.
Ol. gaultheriæ,	♏xx.
Tinct. ferri chloridi,	f ʒ iv.
Acidi citrici,	gr. x.
Liq. ammonii citrat. (B. P.), q. s. ad	f ʒ iv. M.

The mixture is clear, and is not unpalatable. The usual dose is two fluidrachms in water, three or four times a day. The quantities and proportions of the active ingredients may, of course, be varied according to the intended frequency of dosage and other circumstances. In cases which are rather subacute than chronic, it is sometimes given every second hour, until the physiological effects of the salicylate are produced, and then at longer intervals. I have also employed it, with apparently good resuls, in acute articular rheumatism, and in some cases of acute tonsillitis, especially in that group where the diagnosis is at first in doubt between rheumatic angina and diphtheria. Some of my friends have reported to me good results in acute rheumatism. Its particular applicabilty is in that group of patients in whom Dr. Russell Reynolds strongly urges the iron treatment —a recommendation endorsed with equal earnestness by Bartholow—namely, anæmic, delicate, poorly-nourished or broken-down individuals, usually old people, children or adolescents, but met with at all ages, whether the disease be acute, subacute or chronic. In adults, indeed, as a rule, and quite frequently in children, even when the disease is not plainly chronic, the patient will give a history of repeated acute attacks ; or there will seem to have been a long series of recurrences, with intermissions of doubtful health. Recognizing the weight of the testimony in favor of tonic, and especially ferric, treatment of such cases, and yet desiring to obtain also the specific action of the salicylic compounds, I succeeded, after several ineffectual trials, in obtaining a clear mixture by the use of the formula given above, and four years' experience, latterly, with the ample material furnished by the Out-patient Department of Jefferson Medical College Hospital. has abundantly confirmed my expectations of its usefulness.—*Med. and Surg. Reporter*, May 28th, 1887.

INCUBATION OF THE INFECTION OF MEASLES.

Dr. Sevestre, in a thesis recently published, demonstrates the fact that the period of incubation in measles is almost invariable—between thirteen and fourteen days elapsing between the moment of infection and the appearance of the rash. The fever appears four days earlier, viz., between the ninth and tenth day. Another fact, and one of far greater importance, has been determined by Dr. Sevestre, and that is that the infective power of the disease commences with the first moment of prodromic manifestations, viz., of the appearance of fever, and continues with unabated virulence until the eruption, after which its infective power diminishes very rapidly, vanishing entirely on the fifth day thereof. In the analysis of many hundred cases, not one instance of infection after the fifth day of eruption (the 18th or 19th after exposure) could be found. The practical bearing of these facts are manifest. They furnish a sure and valuable guide on points upon which the profession and laity have strangely blundered hitherto, viz, the proper time for isolation of the patient. The habit of sending off the apparently unaffected members of a family, while the fever in an affected one is at its highest, is the surest method of transporting the infection and creating new foci of disease.—*St. Louis Med. and Surg. Journal.*

TREATMENT OF DYSENTERY.

Ipecacuanha as a remedy for dysentery, has now been before the profession for a time sufficient to fully establish its worth or otherwise, and favorable reports of it are still received.

"*Technics*," quoting from *Progrès Medical*, gives a correspondence from Dr. C. MacDowell of Bombay, physician in the British army of East India, who speaks with great enthusiasm of the treatment of dysentery by ipecacuanha. Like other friends of this treatment, such as Bocker, Ewart, Cunningham, Mulun, etc., he says that it is almost a specifice, renders the disease easy to cure, and prevents the complication most feared, *i. e.*, hepatic suppuration. But he emphasizes, particularly "that the remedy be given early in the disease, at the time and in the proper manner." The principles of the treatment are :

1. To give a large dose of ipecac, at least 30 grains, for an adult.

2. To prepare the stomach to accept and retain such a large dose by about twenty drops of laudanum an hour before giving the ipecac, also the application of a sinapism over the stomach ; and to

administer the ipeac in the form of large pills, not in a solution. It must also be given at night. at the time of going to sleep, never in the morning, and not during the day and no liquid is to be taken after the dose has been given.

Sometimes the patient vomits a little mucus towards the morning hours, but the greater portion of the remedy has by that time absorbed. This treatment must be renewed every night, and usually the improvement is marked by the third morning or sooner, blood, mucus, pain all three have disappeared. A disease which formerly made us despair has now lost its terror to us.

The opium may be substituted by a hypodermic injection of morphia. Bismuth subnitrate may be given during the day. Small doses of ipecac are more than useless; they have been tried in India for more than two centuries without lessening the mortality in dysentery. Since more than twenty years the above has been adopted as almost the only treatment in British India and has given the best results.—*Weekly Medical Review.*

DELIVERY AFTER DEATH.

Last Saturday, Mrs. Rosseau living in Engene Sue street, succumbed to a peritonitis occurring at full term.

The medical certificate having been filled in, the employes of the undertaker called Sunday to place her in the coffin, when to their horror they found that she had been delivered of a child, that likewise was dead.

The burial was delayed—a new certificate was made, and this circumstance, that had given rise to the strangest ideas, was explained in a natural way.

This confinement or delivery after death, was but the normal consequence of the developmen, of gases, due to the very rapid decomposition consequent upon great heat.—*Le Petit Joural* Paris, August 10th, 1887, translated for *Record.*

TREATMENT OF LATE CASES OF PUERPERAL INFECTION.

Dr. Hirst (*Philadelphia Med. News*) reports four cases of late puerperal infection, successfully treated by curetting the cavity of the uterus with antiseptic precautions. More or less decomposing decidua was thus removed in each case, and the temperature fell promptly.

LINDSAY AND BLACKISTON'S VISITING LIST.

This, the pioneer visiting list of this continent is early on our table. It still maintains its place, as being the very best, in spite of numerous rivals. We speak from a twenty years' experience of it.

THE CANADA MEDICAL RECORD.
A Monthly Journal of Medicine and Surgery.
EDITORS:
FRANCIS W. CAMPBELL, M.A., M.D., L.R.C.P. LOND.,
Editor and Proprietor.
R. A. KENNEDY, M.A., M.D., Managing Editor.
ASSISTANT EDITOR:
GEORGE E. ARMSTRONG, C.M., M.D.

SUBSCRIPTION TWO DOLLARS PER ANNUM.

All communications and Exchanges must be addressed to the Editors, Drawer 356, Post Office, Montreal.

MONTREAL, OCTOBER, 1887.

THE CANADIAN MEDICAL ASSOCIATION.

The annual meeting of this Association was held in Hamilton, Ont., on the last day of August and the first day of September. The attendance was about equal to what it generally has been, but not by any means what it should have been. The reason for this lack of interest it is hard to understand, unless we come to the conclusion that the bulk of the Canadian profession are absorbed in gathering what our America cousins call "the Almighty Dollar." Yet, in a sordid point of view, attendance on these association meetings is not without its value. Much that is valuable, in a practical point of view, is always to be obtained at these meetings, and those who attend are sure to return home with new ideas, new points which are valuable additions to their store of knowledge. It is this knowledge which we charge for, and the more we have the better we will be paid for it. We fear another reason for non-attendance is that want of national enthusiasm, which is so characteristically present with our friends across the lines, and so markedly absent with us. We did hope that Confederation would remove this blot from us, and that it has done something towards that end is beyond question; but we have still too much Provincialism, too much Quebec, too much Ontario, for our national prosperity. The President, Dr. J. H. Graham, of Toronto, delivered an admirable address, dealing with the general interests of the profession. General addresses upon special subjects named at the previous meeting were read. This was the first time that this had been attempted, and the result proves, we think, that the move was a wise one. Several prominent medical men from abroad were present, among them our old Montreal friend and confrère, Dr. Osler, Professor of Clinical Medicine in the University of Pennsylvania. The next meeting will take place in Ottawa.

INTERNATIONAL MEDICAL CONGRESS.

The first meeting of the Congress on this Continent has been held, and is now among the events of the past. The divisions which occurred among the medical men of the United States, concerning it, caused no little anxiety as to its probable success. It is, therefore, satisfactory to know that it was fairly successful, though, of course, it cannot be denied that the absence of the majority of those who have made American medicine known abroad militated considerably against its *éclat*. Many eminent men from abroad were also induced to absent themselves, on account of this division among the American profession. The numbers present were, however, very large, the Western States being well represented, and Canada sent a fair contingent, Montreal as usual being well to the front. Several very valuable papers were read and ably discussed; but, upon the whole, the foreign representatives think that the meeting was deficient in purely scientific work. We need hardly say that the social work of the Congress was just that for which the large-hearted generosity of our American friends are so noted. Those who came from abroad, we are satisfied, returned home, feeling that they had been visiting a great nation, whose people are alive to all the great issues which affect the human race.

FRESH AIR.

The advantage of pure air, uncontaminated with the impurities, which surround all cities of a considerable size, is admitted by every one, in a hygienic point of view. Physicians know that bad hygienic surroundings not only predispose to disease, but prevent a return to health, when disease has once been developed. It does more, it stunts growth, prevents muscular development, and renders the various organs of the body, especially those concerned in alimentation, unfit to perform their functions in a healthy manner. From various causes, some preventable, and others not, a large portion of the population of cities are born and reared under such surroundings. As a result, when the warm summer days come round, disease attacks those thus situated; and being unable to obtain the proper remedy, pure air, the mortality becomes excessive. This condition of things has, for several years past, been attempted to be remedied in New York, and in a few other large cities, by the formation of a fund known as "the Fresh Air Fund." The object of this Fund has been to send to the country, and to the sea shore, such children of the poor, who being ill or even in delicate health would, it was believed, be benefited by the change. During the past summer, through the energy of Mr. Hugh Graham, Proprietor of the Montreal *Evening Star*, our good city fell into line, and established its Fresh Air Fund. Willing workers were not wanting, and willing contributors came forward with the means in money and in kind. The result was that for the first time in the history of Montreal, a very large number of the sick poor were enabled to visit the country, for a long or short period, as the circumstances of each case seemed to demand. The complete result of the charity has only just been given to the public. From the report of the chairman, it is learned that the committee rented two buildings for the season. One of these at Murray Bay, a famous watering-place on the Lower St. Lawrence, accommodated fifty persons, and was intended for those who, in the judgment of physicians, required sea air to restore them to health. At this place no fewer than 159 persons were maintained. It was ascertained, however, that a very large number of delicate mothers and sick children would be benefited by a simple change of air, and plenty of wholesome food. Steps were therefore taken to secure a home for these nearer Montreal, and, as a consequence, the second building, an hotel at Varennes Springs, about 13 miles from the city, and bordering on the St. Lawrence, which had been vacant for some time, was secured. The period during which each guest was entertained here was ten days. At one time the Home had 160 inmates, and during the entire season it accommodated 550 poor guests. In addition to the sick poor sent to Varennes and Murray Bay, a number of children with their mothers were provided for in the homes of farmers living at some distance from Montreal. Some of these were paid for, but others were entertained gratuitously by generous families. But this is not all. The committee did not content itself with the care of the actual sick. The chairman says it was known that there were hundreds living in the low places of the city, not ill, it is true, but whom a day's "outing" in the country or down the river would prevent many a visit from the doctor. Accordingly, the committee arranged a series of weekly excursions by boat and rail. "In this way, 5,537 persons shared the im-
"mense blessing of God's fresh air, for one day.
"The glowing cheek and sparkling eye testified to
"the benefits which hundreds had derived from

"even those few hours' change. An abundance "of plain and wholesome, refreshments was sup- "plies to these excursionists, free of charge, and, it is "needless to say, disappeared as if by magic." Altogether 6,247 children and women were treated either to a one-day or to a ten-day excursion, and to all the fresh air that such an outing means; and the total cost, owing to the kindness of railway companies in giving reduced fares, of our profession in rendering their professional services gratuitously, and of other persons in contributing in kind, was but $4,829.

The amount of good performed for this small amount of money was very great. Had those who contributed to the Fund read the letters of gratitude which the work elected, or had they seen the parents coming personally to give thanks, whose "dimmed eye and quivering lip told the story "which the faltering tongue refused to tell," they would have felt that the little self-denial they had practised, in order to aid the work, had been more than repaid. There can be no doubt that the Fresh Air Fund in Montreal has given health and life to many little ones, who in their homes would have been condemned to die.

THE EIGHTH VOLUME OF THE INDEX-CATALOGUE.

The eighth volume of the "Index-Catalogue of the Library of the Surgeon-General's Office United States Army," including headings from "Legier" to "Medicine (Naval)," has recently been issued from the Government Printing Office. It contains 10 pages of preliminary matter, and 1,078 pages of references. We have so often expressed our admiration of this great work, that we need not now say more than that the new volume is quite on a par with those that preceded it.

THE ILLUSTRATED LONDON NEWS.

This well known journal is obtaining a very large circulation for its American edition, now published simultaneously with its London edition, at Potter's building, New York. We do not wonder at this, for its yearly subscription is one half of the London issue, viz., $4.00. It is just the paper for physicians to have on their waiting-room table. Patients who find it there will not feel the time long while waiting for the doctor. We place it on ours and vouch for our statement being correct.

LITERARY NOTES.

The following works will be issued during December by the New York Publishers, Leonard & Co., 141 Broadway. Diseases of Women, a work based upon the practical experience and teachings of the following eminent Gynæcologists: Drs. Thomas, Munde, Hunter, Lusk, McLane, Skene, Garrigues, Barker, Emmet, &c., 436 pages, Cloth, $1.50. Diseases of Infancy and Childhood, with over 400 Formulæ and Prescriptions, by Drs. Jacobi, Hammond, Flint, Loomis, Janeway, Bulkley, Agnew, &c., 300 pages; cloth, $1.00. Diseases of Heart and Lungs, with over 350 Formulæ and Prescriptions, by Drs. Draper, Delafield, Leaming, J. Lewis Smith, Loomis, Clark, Janeway, &c., 204 pages; Cloth, $1.25.

The Archives of Gynæcology, New York, has just closed another successful year, having furnished its readers with the resumé of no less than 584 articles. The Publishers do not send sample copies, but announce that any subscriber may return the first number and cancel the order. Subscription $3.00. Payment is not asked till end of year. Leonard & Co., Publishers, 141 Broadway, New York.

PERSONAL.

Dr. A. P. Scott, M. D. (Bishops 1887), has returned from London. He received the L. R. C. P. Lond., at the examination in July last. He intends commencing practice in Montreal.

Dr. Wolfred Nelson, M. D. (Bishops 1872), Foreign Medical Inspector of the New York Life Insurance Company, returned the middle of this month from the Continent of Europe, where he has been for several months on official business.

Dr. Lorne Campbell, son of the late Dr. George W. Campbell, after an absence of several years

in Europe, has returned to Montreal, where we presume he will enter upon the practice of his profession.

Dr. James Bell has been appointed Medical Adviser of the Manufacturers' Life Insurance Company of Toronto, for the City of Montreal.

Sir James A. Grant, M.D., delivered the Introductory Lecture of the Medical Faculty of McGill University, on the 3rd of October. In the evening of the same day he was entertained by the Faculty at a Dinner in St. James' Club.

REVIEW.

The Archives of Pediatrics, a monthly Journal, devoted to the diseases of infants and children. Philadelphia, J. P. Lippincott & Co.

This is a very valuable monthly, and we are pleased to hear of its continued prosperity. That the publishers intend to deserve the support they are receiving, they announce that with the number for next January they will begin a series of articles on the Therapeutics of Infantry and Childhood, by Dr. A. Jacobi, Clinical Professor of diseases of children in the College of Physicians and Surgeons of New York. In writing to the Editor, accepting the task, Dr. Jacobi says:

"I will prepare an essay of ten or twelve pages for every monthly issue of your Journal. The subjects will be therapeutical. The first paper will probably contain general principles in their application to the disorders of early age. The following will treat of the therapeutics of the diseases of the new born, of developmental and infectious diseases, those of the organs of circulation and respiration, genito-urinary organs, stomach and other abdominal viscera, muscles and bones, skin, nervous system, etc. Other subjects which will be treated of afterwards are certain classes of remedies, such as anæsthetics, narcotics, anti-febriles, purgatives, absorbents, roborants, and stimulants, etc. If there be time and room, the most interesting diseases, such as epilepsy, chorea, whooping-cough, and growths, may become the subjects of special papers."

Transactions of the Association of American Physicians.—Second session held at Washington, D.C., June 2nd and 3rd, 1887, Philadelphia. Printed for the Association, 1887.

We have to acknowledge the receipt of this volume, which is the record of work done by men who are earnestly engaged in the field of Medical Science. We are pleased to notice that the first article is from the pen of Dr. R. Palmer Howard of Montreal, who, by-the-by, is one of the vice-presidents of the Association. Dr. Howard writes upon a subject of much interest, viz., the occurrence of Hepatic Cirrhosis in children—fortunately a rare disease. He gives the details of two cases occurring in his practice, and strange to say both the children, in whom the diseases appeared, were members of the same family. There was not any history of alcoholism or of syphilis. The subject is well treated and elicited considerable discussion. An interesting article appears from our old Montreal friend, Dr. Osler, now of Philadelphia, on Hæmorrhagic infarction. As one would anticipate, it is most credible to its author, who is rapidly rising to the front to rank as a scientific physician. In every way the volume is most creditable to the Association, to which we wish increased prosperity.

Insanity, its Classifications, diagnosis and treatment, a manual for Students and practitioners of Medicine. By E. C. Spitka, M.D., President of the New York Neurological Society, New York, E. B. Treat & Co., 771 Broadway, 1887. Price $2.75.

This work seems to be especially valuable to medical students—for there is a conciseness and completeness about it which is really remarkable. For the same reason, perhaps, it will commend itself to the busy practitioner.

A Practical Treatment on the Diseases of the Hair and Scalp. By Geo. Thos. Jackson, M.D., Instructor in Dermatology in the New York Polyclinic; New York, E. B. Treat, 771 Broadway. Price $2.75.

In this age of specialism, we have not yet heard of any man who has taken the scalp and its adornment under his special protection. We have, however, heard of enquiries, having more than once been made for such a specialist, so that if demand creates supply his appearance is not distant. In the meantime, it must be confessed, the diseases of the hair and scalp—especially the former, have received from most authors but shabby treatment. In the work before us, we have a really excellent little treatise, valuable also on account of its eminently practical character, and as such we commend it to all who desire to post themselves on a subject, in which, if properly handled, there is money.

OBITUARY.

Henry Howard, M.R.C.S., Eng.

It is with very deep regret that we have to record the death of Dr. Henry Howard, one of the oldest practitioners in Montreal, which event, not unexpected, took place on the 12th of October. For over a year it was evident that his health was failing; but, notwithstanding more than one warning, he continued to look after his work and move about. For several weeks before the end came, he was confined to the house, and on the date named he passed quietly away. Dr. Howard was born in Nenagh, Ireland, on the 1st of December, 1815. He studied medicine in Dublin with the celebrated Dr. Jacob. He came to Canada in 1842, first living in Kingston, and in 1845 he came to Montreal. He was, we think, the first specialist in this city on diseases of the eye and ear, and for several years conducted the Montreal Eye and Ear Institution, where thousands of the poor were treated, the Government giving it a small grant. Dr. Howard was a prolific political writer, and about 1858 wrote a series of political letters, which appeared in the Montreal Evening *Pilot* under the name of "*Little Bo-Peep.*" These attracted the attention of the great political leader, Sir John A. Macdonald, and when a year or two later the Government decided to establish a Lunatic Asylum at St. Johns, Q, Dr. Howard was appointed its Medical Superintendent. The wisdom of this appointment was at the time vigorously assailed, but whatever truth there was then in the statement, that he was totally inexperienced for such an office, it is beyond question that his vigorous and scientific mind soon grappled with the subject of insanity, so that before long, even his enemies admitted that he had fully qualified himself for the position. Hampered as he was at St. Johns, with what was perhaps the worst make shift for an Asylum that the world ever saw, he produced results which were hardly credible, but redounded to his ability and foresight. When Confederation placed the care of the insane under Provincial management, and the Asylum at St. Johns was closed, and the insane removed to the St. Jean de Dieu Asylum at Longue Pointe, Dr. Howard was appointed its Government Medical Inspector. Here began the troubles of his life, for his scientific mind, now thoroughly trained to his special work, was entirely opposed to the system of farming out lunatics. We have seen and read in manuscript report after report, which he sent to the Local Government, protesting against the system, and the general management of those placed within the walls of this large Institution; but so far as we have any knowledge, not one of these reports have ever been printed, and certainly the result he wished and worked for was never accomplished. His work as Medical Inspector, under these circumstances, can hardly have been called a labor of love; and of late years, owing to disagreements between the Government (Contractor) and the Lady Superior, his position was dedecidedly unpleasant; the constant worry and vexation to which he was subjected had great effect upon his system, so much so, that more than once he expressed to the writer the fear that it was undermining his constitution. In the hope, however, of yet accomplishing something for the benefit of his suffering fellow-creatures, he endured it all, and at a time of life, when nature called for quiet and repose. We have the hope, however, that what we may call his life-work has not been in vain. In his views on insanity, Dr. Howard was in advance of most of his co-temporaries. He believed that all criminals were insane, and therefore irresponsible; some held that the future would prove his theory as correct, others that it was wild and Utopian. He wrote many articles on subjects allied to his speciality, which were read before the Medico-Chirurgical Society of Montreal, and subsequently appeared either in this Journal or in the *Canada Medical and Surgical Journal.* In 1882 he published a small volume upon "The Philosophy of Insanity, Crime and Responsibility." He was an Ex-President of our Medical Society, and till a few months before his death, the most regular attendant at its meetings, setting an example to some of the elders of the profession in Montreal, which, we are sorry to say, they do not follow. At its meeting, his familiar figure with his flowing white beard and accompanying snuff box, was ever a welcome sight to his younger brethern, who, it may truthfully be said, "loved him for his kind, warm and generous nature." He was a warm debater, hit hard sometimes, but always gentlemanly. It will be many long years before the present members will cease to feel the want which his absence creates. We fully endorse the closing words of his obituary in the *Canada Medical and Surgical Journal* of this city: "A brave manly life, fought with unwavering cheerfulness through many and grave difficulties, and laid down at last with the quiet calmness begotten of conscious rectitude."

His remains were removed to St, Johns, Que., where they were interred.