

# The Canadian Journal of Medicine and Surgery

A JOURNAL PUBLISHED MONTHLY IN THE INTERESTS OF  
MEDICINE AND SURGERY

VOL. XXI.

TORONTO, APRIL, 1907.

NO 4.

## *Original Contributions.*

### ACUTE OR SPONTANEOUS HEMORRHAGES IN THE NEWLY-BORN.

BY HENRY T. MACHELL, M.D., TORONTO,

Associate Professor of Obstetrics and Pediatrics, University of Toronto; Physician to the  
Hospital for Sick Children and to the Infants' Home.

Two varieties of hemorrhage in newly-born babies are met with occasionally: 1st, traumatic, or accidental, due to external causes or injuries, such as forceps or long-continued pressure on the head in the pelvic canal; 2nd, spontaneous or acute hemorrhage, and not caused by any apparent injury during birth. The bleeding is, as far as can be seen, spontaneous or without cause.

It is only the latter hemorrhage to which I wish to draw your attention to-night.

Within the last ten years I have seen several cases in my own practice, and have the notes of other cases seen in the practice of my confreres.

The disease is characterized by hemorrhages from widely different parts of the body as: Umbilicus, bowels, stomach, bladder, the skin, cellular tissue, muscles; internal organs, as liver, spleen, suprarenal glands, etc. There may be one or several locations from which the blood comes. It may be merely an oozing, or there may be sufficient blood lost in the space of a few hours to blanch a baby. It usually appears between the first and seventh day, and a large proportion of cases end fatally.

CASE I.—Baby W., born 12th January, 1896, full term, normal labor, female; weight, 8½ lbs. Father and mother well and healthy. Five other children, well and strong. Baby nursed well.

In 36 hours after birth blood was noticed on binder. It was to be seen coming from around the cord at the skin margin, where some clotting had already taken place. Slight pressure stopped it, but on removing the pressure oozing continued. Within 12 hours blood was seen coming from the vagina, and within 12 hours more, or 24 hours from onset of bleeding, vomiting of bloody mucus which continued almost until the baby died on the fifth day, three days from the commencement of hemorrhage.

*Treatment.*—Tannic acid compresses, and hot tannic acid solution as a vaginal injection.

The major portion of the blood came from the stomach; even this was small in amount.

The late Dr. Martin, Carlton Street, saw the baby in consultation on the fourth day. Slight jaundice noticed after the third day. Temperature not taken. No autopsy. No history of hemorrhage in either family.

CASE II.—Baby S., female, born 10th June, 1897, the second child. The first is alive and well now. Forceps used. Weight 8½ lbs. Puerperium normal. Father and mother healthy. Mother died last year (nine years after), of tuberculosis of the kidney. Hemorrhage began about 36 hours after birth, and came from the bowels and bladder in small amounts and continued for two days. Temperature not noted. Child never seemed very ill, failed little in weight or plumpness, but became anemic. The only treatment for the hemorrhage was rectal injections of salt solution. Did well for six months, when she was found smothered in a hammock. No history of hemorrhages on either side.

CASE III.—Baby G., born 10th May, 1900, full term, male; weight, 10 lbs. Father well, but mother somewhat nervous, but never had any serious illness. One sister alive and healthy. Baby nursed and seemed well until hemorrhage began at the end of the second day. It came from the bowel and 12 hours later from the stomach. Nose-bleed and purpuric spots on arms and legs occurred before the end of the third day. Temperature, 100 to 101. No jaundice. Seen by Dr. Starr on the fourth day.

*Treatment.*—Normal salt solution injected into the bowel and tannic acid solution into the nostrils.

Died on the fifth day.

No hemorrhage on father's or mother's side.

Uneventful recovery from the confinement. Confined 30th December, 1903, of a healthy child.

CASE IV.—Baby H., born 25th February, 1901, full term. Chloroform given by Dr. F. N. G. Starr, and forceps applied; female; weight, 8½ lbs. Nursed within a few hours. Father and mother healthy. One brother alive and well. Hemorrhage first noticed on third day, from the bowel. At first it was blackish,

with a faint pink tinge at the margin of the mass; later it was a mixture of black and red blood. Within 12 hours vomiting of fairly bright red blood began. By that time baby was unable to nurse. Vomiting occurred whether baby nursed or not. More blood was lost by the bowel than by the stomach. On the fourth and fifth days the baby looked positively bloodless and seemed on several occasions *in extremis*. Lost weight very noticeably. In three days after the first appearance of blood it ceased somewhat suddenly. The baby began to improve very slowly. It was fed mother's milk by a dropper, and in a few days by a spoon. In a week after the cessation of bleeding she began to nurse again. Temperature at no time over 101 F. Slight jaundice after a week. The cord dropped on the seventh day. No bleeding from the stump occurred.

*Treatment.*—Ergot internally and rectal injections of normal salt solution.

No hemorrhage in father's or mother's family.

CASE V.—Baby C., born 9th December, 1903, full term, first baby, male; weight, 10 lbs.; chloroform and forceps. Father and mother well and healthy. Baby well and strong and nursed within a few hours. Early in the second day hemorrhage was noticed coming from the margin of the cord, where it was beginning to separate from the abdominal wall. At first it was only a slight ooze. Within six hours it was oozing freely, in spite of compresses of tannic acid and, later, styptic cotton, changed frequently. Within twelve hours blood was seen in the stools and petechial spots on the legs. Temperature never less than 103 F. from the time bleeding was first noticed.

*Treatment.*—Calcium chloride, given internally, and rectal injections of normal salt solution.

Death in twenty-four hours from the beginning of the hemorrhage. Most of the hemorrhage seemed to come from the umbilicus. All told, there did not appear to be sufficient to cause the baby's death.

The short illness, the persistently high temperature and the comparatively small amount of blood lost are suggestive of an infection.

No hemorrhage on either side of the family.

CASE VI.—Baby M., born 19th March, 1906, full term, chloroform and forceps, male, first child; weight, 6 3-4 lbs. Father and mother of highly neurotic temperament. Baby nursed within six hours and seemed strong and healthy. A small abrasion was made by the blade of the forceps over right frontal bone, about  $\frac{1}{3}$  of an inch long. Only the outer cuticle was cut through. Little or no bleeding occurred from it. Both eyelids seemed swollen and everted, as if from intrapelvic pressure. Baby cried

when slapped. In the afternoon of the same day a small cephal-hematoma was noticed over most of the right parietal bone and also some slight discoloration over the left upper eyelid. The discoloration was thought to be due to the trauma of labor.

20th. Baby nursed and seemed well, though cross and fretful at night. Hematoma well within margin of parietal bone, but larger, more freely fluctuating and tender to touch, stain over left upper eyelid more marked.

21st. Baby cross and fretful and apparently in pain all night and markedly so on touching the tumor of the scalp. Tumor increased in size, stain of eyelid more marked, but no thickening, swelling or bogginess.

22nd. Baby did not sleep all night. He kept up a constant fret all night, and while he took water readily would not nurse. At 9.30 a.m. both upper and lower lids of left eye were much discolored, swollen and boggy and a thin bloody discharge was oozing between them. Found free fluctuation over whole of right parietal, part of temporal, part of left parietal, and the right  $\frac{2}{3}$  of occipital bones. There was marked tenderness over this area. He flinched and cried on the least pressure. Several new foci were to be seen this morning: A newly discolored area,  $1\frac{1}{2} \times 2\frac{1}{2}$  inches, on the outer surface of the humerus, three or four small discolored areas about the knuckles, some discoloration and blood on the roof of the mouth, a large dark patch below and behind the left ear, some bleeding from the left nostril, a trace of blood in one vomit, slight bleeding from around the cord. Temperature, 101 F. Calcium chloride was ordered by the mouth. Later in the day Dr. Reeve, Dr. W. P. Caven, and Dr. Adam Wright saw the case with me. As the calcium chloride had by this time upset the stomach, it was decided to give it per rectum, and adrenalin solution in gtt. i doses by the mouth and gelatin 2 per cent. solution every hour or two, also by the mouth.

9.30 p.m. Eyelids were more swollen and bursting in appearance, everted, and oozing. Vomiting began after a few doses of gelatin. This preparation was not a nice one. It was yellowish, thick, gluey and smelled like a glue-pot. It was therefore ordered to be injected into the bowel,  $\frac{1}{2}$  oz. every hour. Face very pale and in marked contrast to the discolored (almost black) and bulging left eyelid. Temperature, 102 F.

23rd, 9 a.m. Had hemorrhage from the bowel, probably not more than a couple of drams, but almost immediately afterwards he became very quiet and seemed to the nurse to be dying. I had to look closely to see that he was breathing. Saline injection  $\frac{3}{4}$  i to be given every hour. Swelling over lids possibly not so tense as yesterday. Scalp apparently stripped up more, so much so that the lobe of right ear was pushed upward and forward. Temperature, 100 F. Gelatin according to the following

formula, taken from Frühwald, was ordered and found to be much more palatable than the first lot:

|                             |                    |
|-----------------------------|--------------------|
| R Gelatin alb. (Merk) ..... | gr. xxx.           |
| Sod. chlorid .....          | gr. ii.            |
| Aq. destil. ....            | $\frac{5}{3}$ iii. |
| $\bar{5}$ i o.h i vel 2.    |                    |

Skin dry, rough and parched over the whole body. 3 p.m.: Taking gelatin and keeping it down. Ordered  $\bar{3}$  i also to be injected into the bowel every three hours. Some new dark spots (blood) noticed on palms and backs of hands. 10 p.m.: Lies quietly except when scalp is touched, then cries as if in pain. Temperature 101 F.

24th, 10 a.m. Temperature 100 2-5 F. Had three mild convulsions during the night. Vomited after each dose of gelatin, which was then discontinued, and saline enemata to be tried again. Lies quiescent; only apparent sign of life is an occasional movement of lips. 5 p.m.: Swelling over lids less, showing eyeball between—hazy, lustreless and pushed forward from behind about  $\frac{1}{2}$  inch. Temperature, 100 F.

25th, 9 a.m. Temperature, 100 F. Right eyelid discolored, though not swollen now. To have whey by mouth and normal saline by bowel to be continued. 9 p.m.: Temperature, 100 F. Two dropperfuls of whey was all baby could be induced to take at any one time. Scarcely moves a hand or foot, but the color in the lips is possibly a shade better. Has wasted very markedly.

26th, 10 a.m. Takes six or seven dropperfuls of whey at one time. More bluish discoloration about forehead above and in front of the right ear. Temperature, 100 $\frac{1}{2}$  F. 6 p.m.: Temperature, 101 F. Nurse said that at 11.30 a.m. he seemed in much pain and kept crying out at times, was restless, pale and kept lower jaw moving up and down with each inspiration. Almost collapsed again at 3 p.m., making the same movement with the lower jaw. Soon after this a red-colored patch, 1 $\frac{1}{2}$  x 3-4 of an inch, appeared on the left forearm, which fluctuated. Ordered gelatin solution  $\bar{3}$  ii by the mouth and  $\bar{3}$  i by the rectum.

27th, 10 a.m. Temperature, 99 F. Urinates three or four times a day, and usually only with suprapubic pressure. Eye less protruding, but hazy. Lids less swollen, but black as ink. Cord dropped off; no hemorrhage followed.

28th. Much stronger, moves legs and arms freely.

29th. Takes  $\bar{3}$  iv whey every two hours and digesting it. No fresh hemorrhages.

31st. Takes  $\bar{3}$  vi of whey every two hours. Lips, cheeks and fingers a better color.

April 2nd. To try baby at mother's breast twice daily after first emptying them. Hematoma under scalp becoming circum-

scribed and less fluctuating. Small dark or bluish areas on fingers, arms and back of neck and shoulders fading.

5th. Baby able to get little or none from its mother and became cross and fretful. The nipples became inflamed.

10th. Baby's digestion upset as a result of trying to make him nurse his mother, who was markedly nervous. To have one of the condensed milk preparations for a few days until a wet-nurse can be secured.

25th. Wet-nurse obtained. Baby nurses vigorously.

May 3rd. No fluctuation under the scalp. Discoloration of eyelids has disappeared. Lids quite normal in appearance. Corneal opacity marked.

No history of hemorrhage in either family.

CASE VII.—(Practice of Dr. A. H. Wright.) Baby D., born May 3rd, 1904, with forceps. Healthy and well nourished. Hemorrhages began when baby was twenty-four hours old. Purpuric spots were seen to be dotted over almost the whole body, the trunk as well as all the extremities. Within a short time blood was passed per rectum, and later vomiting of blood occurred.

Died on the fourth day.

CASE VIII.—(Reported by Mr. E. D. Gillies, medical student.) Baby W., female. Mother strong and healthy. Father living and well. Seven brothers and sisters living and well. One twin brother died at twelve months, cause unknown. One infant died two years ago of hemorrhage from the bowels when two days old. The hemorrhage continued during the last twenty-four hours of its life. This baby was born on January 8th, 1906, at 5.35 a.m. It was an easy, rapid birth and cord was not cut nor tied until 6.10 a.m., and placenta expelled shortly after. Child well developed and viable. On the morning of the 9th some bright red blood was noticed in the stools, which increased in quantity during the day. During that afternoon a black-looking material containing blood was vomited. It again vomited on the morning of the 10th, and there was a slight ecchymosis on the under part of the upper left eyelid, which increased in size until it almost covered half the upper lid. The child nursed well, slept well, cried very little. Respirations, 24, sometimes sighing in character. Temperature, normal.

*Treatment.*—Gave calcium chloride gr. i every four hours for thirty-six hours, but movements were more frequent and seemed to contain more blood. Child cried more. Then just gave nurse and 5 m. spts. frumenti well diluted every three hours. Frequency of stools and also quantity of blood passed seemed to diminish gradually from the time the calcium chloride was stopped. Child has no blood in stools and doing well for past four days.

CASE IX.—(Practice of Dr. G. E. Smith.) Baby D., mother aged 30, primipara, lame. Called on February 5th, 1906, at 8 p.m. Pains not very effectual. Applied forceps at 10 p.m. Delivered child at 11.30 p.m. Feb. 6th, at 10 p.m. (22 hours after birth), nurse thought swelling existed in region of stomach. Child vomited shortly after, the vomit consisting of a great deal of clotted blood and also some fresh blood; filled a teacup. Child had cramps before vomiting and movement of bowels later. Child continued to vomit up clots and blood. No blood in stools. Feb. 7th: Blood in stools. From 10 p.m.—4 a.m. (on Feb. 8th), *i.e.*, in six hours, had to change diaper four times; about 1½ teacupfuls in clots and red blood. Baby refused nurse and fluids. No subcutaneous hemorrhages; none in mouth. Looks very anemic; much like a marasmic baby. Scarcely any pulse. Feb. 8th: Started to give saline and calcium chloride by bowel. Very little vomit or melena. Feb. 9th: Pulse better. No vomit or melena. Child looks bad, weak and anemic. Feb. 10th: Child nursing again; no blood. Child continued in this condition for three or four days. Looked as though it might recover if it were not so weak from loss of blood. No blood appearing, stopped the calcium chloride and saline. About the 10th day died suddenly, about half an hour after nursing as usual. Possibly fresh hemorrhage may have occurred. (Intraperitoneal?)

CASE X.—(Practice of Dr. A. H. Wright.) Baby —, born 30th December, 1906. Apparently healthy. Hemorrhages commenced in latter part of first day, especially under the skin, from the mouth and from intestines.

*Treatment.*—Gelatin by mouth, calomel, castor oil, adrenalin in minim doses of 1-1000 solution (also by mouth). After two weeks much improved. Apparently recovering rapidly for several days. In fourth week grew worse, had general jaundice, gradually sank and died twenty-nine days after birth.

I have to thank Dr. K. H. VanNorman, house physician, Toronto General Hospital, for the notes of the four following cases which occurred at the Burnside.

CASE XI.—(At Burnside Hospital.) Mother confined on March 21st, 1906. Labor twenty-one hours' duration. Mother Russian, married, twenty-five years of age; forceps delivery.

March 23rd. Child vomited black fluid. Temperature, 98 1-5 F. There was also large submucous hemorrhage.

25th. Vomited black fluid containing blood. Normal saline given per rectum, also injection 15 c.c. gelatin (two per cent. solution). Blood in stools.

26th. Again vomited black fluid. Temperature, 101 4-5.

27th. No vomiting. Temperature, 99 4-5. Stools more normal.

28th. Rapidly improving. Before administration of gelatin child was jaundiced, sinking rapidly, but left the hospital greatly improved.

Discharged April 5th. April 29th, reported well.

CASE XII.—(At Burnside Hospital.) Mother was confined April 29th, 1906. The liquor amnii was discharged two days before delivery. Mother, 37 years, married, English. Child delivered by version—fourth child. The first two were delivered by forceps, the third by Cæsarean section. At time of delivery child was noticed to have paralysis of right arm and a groove on the right side of the head at about the posterior region of the parietal bone. Post-mortem showed extensive subdural hemorrhages, especially at base of skull extending downwards into spinal canal. Hemorrhage about brachial plexus on right side. Fracture of right humerus, involving musculo-spiral nerve. Abdomen contained considerable quantity of fluid, apparently a rupture of a hematoma on under surface of liver. There was a second unruptured hematoma. Hemorrhage in both suprarenal capsules. Notwithstanding the above, the baby seemed comparatively well till it died suddenly on May 3rd, 1906.

CASE XIII.—(At Burnside Hospital.) Mother confined May 29th. In labor thirty-six hours; 34 years old; married; Canadian; forceps delivery, which were applied for thirty minutes. When baby was twelve hours old began to vomit blood, became weak and breathed poorly. Improved slightly in the next twelve hours. No more hemorrhages, but weakened gradually, and died about forty hours after birth.

CASE XIV.—(At Burnside Hospital.) Mother delivered May 30th; seven hours in labor; forceps applied for twenty-one minutes; mother Canadian; married; 22 years old. June 4th. Baby had hemorrhage from the bowel.

*Causation.*—The following have been mentioned: Hemophilia; septic infection; syphilis; injuries to head, which result in cerebral hemorrhages; too early ligation of cord; plethora; debility; ulcer of stomach or bowel; acute fatty degeneration of the newborn; jaundice; feeble coagulability of the blood; deficiency or defect in the walls of the capillary vessels.

*Onset.*—It will be seen that with two exceptions (Cases IX. and X.), the bleeding began before the end of the third day. In six it began on the second day; in one on the third day, and in two before the end of the first day. The infants had all been well with the exception of Case X., and as far as could be seen there was nothing abnormal until bleeding began.

*Character.*—In all the cases the bleeding began in a gradual manner.

*Amount.*—It is difficult to estimate the amount of blood lost



in any given case. In some of the cases the amount to be seen was not enough to blanch a child, let alone destroy it. In two the amount lost was large, notably in Cases IV. and VI. In the latter, while little blood came away externally, a great quantity must have leaked from the vessels to produce such free fluctuation under the scalp, in the sterno-mastoid muscle, in the cellular tissue of the arm, around the eyeball, etc.

*Site of Hemorrhage.*—It may come from any part of the body: In two cases it came from the umbilicus; in six cases from the stomach; in eight cases from the bowel; in six cases under the skin; in one case from the mouth; in one case into muscle; in one case under the scalp; in one case under cellular tissue around eyeball; in one case into abdominal cavity; in one case into suprarenal capsules, etc. The bleeding may, and usually does, come from more than one source. In none of the above cases was it confined to one site. In three cases there were two sources, and in five cases three sources, and in Case No. VI. from very many points, nearly all of which were confined to head, neck and upper extremities.

*Quality of Blood.*—In only two cases was there any clotting of blood: Case IV., where bright blood came from the bowel and clotted in small clots on the napkin, and Case I., where it oozed from around the stump of the cord and there clotted on the pad.

*Temperature.*—In nine cases it was not taken. In one it was normal, in three it was 98 1-5 to 102, and in one it was over 103 F.

*Loss of Weight.*—Every baby seemed to shrink very soon after the beginning of hemorrhage. The shrinking seemed to be out of all proportion to the amount of blood lost. This was noticed in the cases in which no elevation of temperature occurred, as well as in those with a fairly high fever.

Cases IV. and VI. lost weight very rapidly, and some weeks passed before any material increase took place.

*Duration of Disease.*—It is usually of brief and definite duration: One case died on the third day, ill one day; one case died on the fourth day, ill three days; two cases died on the fifth day, ill three days; one case died on the tenth day, ill nine days; one case died on the twenty-ninth day, ill twenty-eight days. The baby who died on the twenty-ninth day had marked jaundice during the last week. It is possible that the condition which gave rise to the jaundice, rather than the hemorrhagic condition, caused its death.

*Frequency.*—The disease is not of frequent occurrence. I had been in practice fifteen years before I saw my first case, or, perhaps I might more correctly say, before I recognized one. I have seen two cases in my own practice in the last three years.

It appears to be more frequent in hospital than in private practice. "Out of 6,700 deliveries at the Boston Lying-in Hospital, 45 cases occurred, a percentage of .67, or about 2-3 of 1 per cent., while in the out-patient department among 4,000 deliveries, there were 4 cases, or 1-10 of 1 per cent.

"This comparative prevalence in the hospital has no connection with puerperal septicemia, as the disease (septicemia) is practically free from the Boston Lying-in Hospital, but it occurs independently of it, just as thrush may get a foothold and flourish in a hospital although not common in outside practice."

In the Burnside Hospital, Toronto, there are records of four cases, particulars of which have just been given.

Only one case has been noted at Grace Hospital, Case X.

St. Michael's Hospital has apparently not had a case.

*Post-mortem Examinations.*—None were allowed in my own cases. In one, Case No. XII., at the Burnside, where a post-mortem was obtained, subdural hemorrhages at the base of the skull (the child was delivered by version), hemorrhage about the brachial plexus on the right side, hemorrhage into the abdomen from rupture of a hematoma on the under surface of the liver, also an unruptured hematoma and hemorrhage into both suprarenal capsules.

Townsend had looked up the records of 81 autopsies. In the majority of cases nothing abnormal was found, except the hemorrhages and the resulting anemia. In a very small number of cases the following diseased conditions were found: Syphilis, enlarged spleen, enlarged liver, inflammation of the umbilical and portal veins, and acute fatty degeneration.

*Bacteriology.*—Abt found the colon bacillus in cultures from the spleen, kidneys, liver, heart, etc., in two cases.

Kilham and Mercelis found streptococcus alone or with the diplococcus of pneumonia, bacillus pyocyaneus, bacillus lactis aerogenes, Friedlander's bacillus, bacillus of Gaertner, and negative results at times.

*Histology.*—"The smallest vessels have been closely examined without detecting any pathologic changes in their walls."

*Diagnosis.*—There was little difficulty in making a diagnosis in these cases. The bleeding began within 24 hours in two cases and before the end of the third day in ten cases. In the cases where it came from the umbilicus it was oozing in character rather than a free flow, as if the ligature had slipped. Bleeding from a loose ligature, moreover, practically always occurs within the first hour or two.

There was no history of syphilis in the parents and there was nothing to indicate it in the appearance of any of the infants.

In none of the cases was there any evidence of a septic condition in either mother or child.

There were no skin abrasions save a slight one over right frontal bone (Case No. VI.), from which practically no bleeding occurred, neither was there omphalitis in any case. While the forceps was used in nine cases and version in one, no apparent injury could be made out either to scalp or bones, with the exception of Case XII.

One naturally thinks of hemophilia where there is uncontrollable hemorrhage in young children.

The fact that hemophilia never, or rarely ever, shows itself before the end of the first year should help one to make a diagnosis without much difficulty.

The hemophilic tendency is commonly hereditary and occurs usually after slight or severe traumata.

In none of these cases was there any history whatever of hemophilia. None of the parents had ever heard of the term "bleeder."

There is no reason, though, why spontaneous hemorrhages should not occasionally occur in a hemophilic subject. Such a case is reported by Larrabee. In his case, "A slight scratch was made on the baby's scalp during the rupturing of the membranes and the hemorrhage from this was never controlled. In a few hours bleeding appeared from the cut end of the cord and continued in spite of repeated ligatures.

"After this, hemorrhage came from various parts of the body and destroyed the baby on the fifth day. This child was a descendant of a family many of whom had been bleeders for six generations."

He quotes the histories of 37 cases of hereditary hemophilia in the newly-born. One has, therefore, to bear in mind the occasional coexistence of the two diseases. That they do occur together is proven by Larrabee's cases and by occasional cases in the practice of other physicians. That they do not occur frequently is evidenced by Grandidier, who is quoted by Koplik as having records of only 12 cases of hemophilia in 575 cases of spontaneous hemorrhage.

None of my patients who survived have since shown any evidence of hemophilia. In Case IV. the cord dropped off on the seventh day, and in Case VI. on the eighth day, without bleeding from the stump in either case.

Townsend mentions two cases of acute hemorrhage in which the cords dropped off on the eighth and eleventh days, and no hemorrhage occurred in either.

Rotch records a case of spontaneous hemorrhage during the first few days of life and on which circumcision was performed on the eighth day without hemorrhage.

My cases show that about an equal number of males and

females are affected, while in true hemophilia the females outnumber the males 13 to 1, judging by Townsend's 709 cases.

*Prognosis.*—The greater and the more sudden the hemorrhage, the less the chance of the patient surviving. That is a broad rule which I think holds good in the large majority of cases. In Case VI. a very large amount was poured out under the scalp, how many ounces is a matter of conjecture.

On the occurrence of a hemorrhage under the skin of the arm the baby suddenly collapsed and almost succumbed. Within a few hours after this another hemorrhage occurred just above the wrist; with the same alarming symptoms.

While the amount under the scalp was many times larger than that in the arm, the bleeding beneath the scalp was gradual and did not seem to make as great an impression on the baby as the two more sudden but smaller masses under the arm.

One should not forget that the baby was almost moribund from the main hemorrhage and consequently any small subsequent bleeding would have a profound effect. This was the only case in which a large amount of blood could be said to have been lost.

“The loss of blood in these cases should no more be considered the cause of the lethal result than would the purpuric spots in a morbus maculosus in a case of cerebro-spinal meningitis with purpura, or the expectoration of rusty sputum in the pneumonia of an adult.” (Abt.)

Why, then, should those infants who lost very little blood have died? I think one must consider them as acute septic or toxemic cases. Cases Nos. I. and V. were undoubtedly septic ones.

The temperature is not a correct guide as far as the prognosis is concerned. One of Abt's cases had a continuously high temperature, running up to 104 F., and recovered. Another had a sub-normal one and also recovered.

Convulsions, either at the onset, as occurs in some of the septic cases, or toward the end, add to the gravity of the case. On the other hand, one of my cases had three convulsions and recovered.

Townsend's cases, with a mortality of 79 per cent., should be borne in mind when questioned as to prognosis in any given case.

In these cases of spontaneous hemorrhage one can safely predict that they will *not* have repeated hemorrhages in after years. In the cases of hemophilia one can just as safely assert that they *will* have recurrent hemorrhages and that they are likely to succumb before they reach adult life.

*Treatment.*—In one of these cases, No. V., the course was so acute that one would not expect much relief from any form of treatment. This child seemed to die of sepsis rather than from

the amount of blood lost. Whether gelatin would have afforded any relief I cannot say.

A great many remedies have been used in the past in these cases—many of them empirically. The three which are most used at the present time are calcium chloride, solution of adrenalin, and gelatin. The first-named was given in Case V., without any apparent effect. Adrenalin and gelatin were both given internally in Case VI., and he recovered, whether on account of, or in spite of, either remedy, I do not know. It was a case, however, in which septic symptoms were at a minimum and in which styptics appeared to be indicated.

Gelatin appears to be able to coagulate the blood of bleeding surfaces. A good illustration of this effect occurred at the Hospital for Sick Children in October last. Gelatin was given to a boy aet. 10 years, suffering from hemophilia almost since infancy. Shortly after entering the hospital free nose-bleeding took place and 3 i doses of a 2 per cent. solution were given every hour. The bleeding ceased in a few hours. In 24 or 36 hours afterward, in attempting to get a few drops of blood from the lobe of the ear for the purpose of making a blood count, it was found that blood could not be made to flow either from the ear or finger. This was a boy who bled on the slightest provocation from a scratch, or bruise, or into the larger joints without any traumatism. Yet after the gelatin not a drop of blood could be obtained from his ear or finger.

In Case No. VI. no improvement could be seen after the persistent use of gelatin and adrenalin for about 24 hours. As soon as vomiting began, 1½ oz. of a 2 per cent. gelatin solution were injected into the bowel and repeated three times, when the rectum became irritable. It was then given again by the mouth and about 48 hours after commencing it some little improvement was noticed, or to be more accurate, the baby appeared to cease getting thinner and paler. For external use, such as a bleeding navel, a 10 per cent. solution is advised by Abt.

The hypodermic injection of gelatin has been advised by a number of authors, but Abt sounds a warning against its use in this way. He gave a subcutaneous injection of 2 oz. of 2 per cent. solution to a feeble-minded girl aet. four years. Her temperature rose to 100 2-5 F. and later to 101; the pulse increased from 92 to 140, and respirations from 24 to 36. The child was restless, greatly prostrated and extremities cold. This condition lasted for 24 hours. Two other children, aged nine and two years, were also given subcutaneous injections, with a similar increase in temperature, pulse and respiration.

He then experimented with gelatin subcutaneously in rabbits. One rabbit was not inconvenienced by injections of 60 c.c., but its blood clotted in 48 seconds before, and in 12 seconds after,

injection. One was given 60 c.c., then 250 c.c., and, finally, 500 c.c., and died some hours afterwards, having lost weight rapidly. One was injected with one injection of 500 c.c. of a 5 per cent. solution, and died in three hours after.

His conclusions were:

First. Subcutaneous injections of sterilized gelatin solution are capable of producing toxic symptoms in children.

Second. Large doses of 5 per cent. solution of gelatin caused the death of rabbits.

His explanation is that the gelatin is manufactured from the bones of animals; that the decomposition which takes place in these bones gives rise to cadaveric poisons; that these poisons are ptomaines is evidenced by the elevation of temperature and the gradual condition of prostration and collapse; that ptomaines may be contained in solutions which are subjected to high degrees of heat, the latter not altering their chemical nature nor their toxic property.

One has only to smell the gelatin to be reminded of a glue factory. Even when Merck's white gelatin is used, though this is probably the best on the market, its odor is not suggestive of an article which is sterile.

For that reason, if for no other, one would hesitate to use it subcutaneously. Abt thinks it would be difficult to state what a safe dose of gelatin would be, given subcutaneously, to a newborn infant, but that the local use and the use by the mouth are warmly recommended.

I think if the stomach rebels at prolonged dosing, as it did in Case VI., one should not forget that absorption takes place rapidly from the rectal walls.

This would seem to be a much safer method of introducing gelatin than the subcutaneous one.

#### REFERENCES.

- Hemorrhages in the New-Born. E. L. Partridge, New York, Med. Record, Aug. 1890.  
 Hemorrhagic Disease of the New-Born. Kilham and Mercilis, N.Y., Archives of Pediatrics, March, 1899.  
 A Case of Sinus Thrombosis. S. McHamill, Phila., Arch. Pediatrics, April, 1903.  
 Hemophilia in a Female Child. P. S. Blacker, Brit. Med. Jour., Jan. 1904.  
 Meningeal Hemorrhage. Hy. Ashby, Brit. Med. Jour., Feb. 8, 1890.  
 Hematuria Due to Hemorrhagic Diathesis. H. B. A. Pearson, Lancet, Jan. 1904.  
 Hemophilia in the Newly-Born with Report of a Case. R. C. Larrabee, Boston, Am. Jour. Med. Sciences, March, 1906.  
 Vulvar and Vaginal Hemorrhages in the Newly-Born. S. C. Busey, Washington, Am. Jour. Obs., 1890.  
 The Practice of Obstetrics. J. Clifton Edgar, New York, 1904.  
 The Diseases of Infancy and Childhood. Henry Koplik, New York, 1900.  
 Two Cases of Hemorrhage in the New-Born. Thos. D. Parke, Birmingham, Ala., Arch. Ped., Sept. 1906.  
 Hemorrhages in the New-Born. C. W. Townsend, Boston, Boston Med. and Surg. Jour. 1901.  
 The Hemorrhagic Diseases of the New-Born. C. W. Townsend, Arch. Ped. 1904, vol. II.  
 A Case of Hemorrhagic Disease of the New-Born. C. W. Townsend.  
 Diseases of Infancy and Childhood. T. Emmett Holt, New York, 1906.  
 Three Cases of Hemorrhagic Disease in the Newly-Born. Hy. Stevens, Boston Med. and Surg. Jour. 1904.  
 Spontaneous Hemorrhage in New-Born Children. Isaac Abt, Chicago, Jour. Am. Med. Sciences, Jan. 1903.  
 Diseases of Children. N. Filatov, 1904.  
 Reference Handbook of the Diseases of Children. F. Fruhwald, 1906.

## DEMENTIA PRAECOX.\*

BY C. K. CLARKE M.D., LL.D., TORONTO.

THAT the importance of dementia praecox, viewed both from the standpoint of etiology and symptomatology, is very differently regarded in America by psychiatrists of undoubtedly high rank, is well illustrated by recent literature. In two important textbooks, published within the last year, we find the author of one disposing of the whole subject in three and a quarter pages; in the other no less than forty-one pages are devoted to an elaborate discussion of this vexed question.

Then, again, when one studies the classification of mental diseases in annual reports, he finds that in many instances dementia praecox does duty to an extent that is scarcely credible to those psychiatrists who are content to make haste slowly. That nearly 40 per cent. of the admissions to any institution are suffering from this form of insanity is difficult to accept, and yet that is what we are asked to believe. On this side of the Atlantic we are very apt to become radical at times, and as so many of our alienists, owing to methods of appointment, have lacked training in clinical work in hospitals for the insane, it is not to be wondered that, at times, ill-digested results are put forth as facts.

It is significant that as thorough an investigator as Kraepelin has never yet given an absolute definition of dementia praecox, although he has not hesitated to change his opinion many times regarding the groups of cases which should possibly come under this heading.

The difficulty in all of these discussions is that of sifting the wheat from the chaff, and of aiming at something definite regarding this idea of classification.

That the name is unfortunate goes without saying, especially if we are to include cases which cannot fairly be called precocious, and others which are written off the records as recovered. If the etymology of dementia is worth anything, it seems a pity to destroy the meaning of the term, and certainly precocious is not the word to use in connexion with advanced life. As a matter of fact, the name dementia praecox must only be regarded as tentative, and will perhaps answer all necessary purposes until modern clinical methods have been long enough in vogue to enable us to determine what scheme of classification is ultimately to be adopted.

That prognosis will be the basis of this scheme is generally believed, although excellent arguments against such a plan have been advanced.

\* Read at meeting of the British Medical Association, Toronto, August 21-25, 1906.

Psychiatry is a most difficult study, and, as has been pointed out by Dr. Adolf Meyer, certain terms denote absolutely different trains of thought in different writers. Some of the younger authors have not as yet discovered the depth of the waters into which they have so bravely and enthusiastically plunged, but where so much admirable work is being done it would be ill-natured to criticize; and, after all, psychiatry as a whole requires just such devotees as those who are concentrating their energies on the study of dementia praecox.

The solution lies in careful clinical investigation, and until this has been carried on systematically for years the battle will go on with vigor, and the slain and wounded in the fray will not be few.

Nearly all alienists are agreed that what is so frequently called the "Kraepelin idea"—although it is questionable if the whole credit should be given to this eminent author—is the one that points to the most hopeful line of investigation to put psychiatry on a more solid basis than has yet been the case.

The great danger at present is that of squandering our energies in too many directions, and the violent efforts of many writers to bring widely-divergent classes of cases under the one heading are to be deprecated. Want of clearness has been the besetting sin of our science in the past, and if we are to adopt the Kraepelin departure we should do so with our eyes wide open to the difficulties and complications likely to be encountered.

To strain a classification to such an extent that 40 per cent. of the admissions of a hospital for the insane can be included under the heading "dementia praecox" is certainly adding little to science, but rather tending to befuddle the whole subject. That there is a place in our classification for dementia praecox most of us freely admit; that the three classical groups which so often merge into each other exist is abundantly evident to those who have puzzled for any number of years over the disappointing results in evolutional cases of insanity.

The experience of any alienist will enable him to easily classify the patients in whom the prognosis is absolutely unfavorable, but the more doubtful cases are not so easily disposed of, unless we are willing to accept recovery as proof positive that dementia praecox did not exist. If we may safely go that far in general paresis, why not in the other cases, if the pathological lesion can be as definitely traced and fixed? The allied states are the great difficulty and we should certainly be very conservative, and it would be well to go slowly in fixing their place until a good deal of the fog has been cleared away.

These remarks apply particularly to the hebephrenic and kato-tonic groups. Then, again with paranoiacs it seems a grave mistake to place all of these under the paranoid heading, as some are inclined to do. While it is true that the term paranoia has been



greatly overworked, in some quarters it has a place in psychiatric literature and conveys a definite meaning.

The statement is sometimes made that the paranoid cases appear much later in life than hebephrenic and katatonic varieties, but this will bear further examination and study.

My experience has been that such patients, who drift into institutions towards middle age, have as a rule, a history of dementia, occurring at the early, evolutionary period, with symptoms so carefully masked and guarded that they are not suspected by the ordinary observer. Half of our difficulty in dealing with the diagnosis and prognosis is occasioned by the impossibility of getting at the earliest proofs of the mental change in the patient. Having seen a few cases develop, from the beginning, during my school days, a very pronounced belief that true dementia praecox is a disease taking several or, perhaps, many years to reach its final stages, is firmly fixed in my mind.

Then, again, we must remember that, until we thoroughly understand the pathological basis of this and other forms of degeneration, it cannot be possible to speak absolutely of symptom pictures, which are found in certain deterioration processes and simulated in others, where the prognosis is not unfavorable. To differentiate these at present is a difficult, if not impossible, task.

Dr. Adolf Meyer is undoubtedly right when he says that he would like to make the most of what Kraepelin's departure has added to psychiatry. He would insist on the desirability of singling out the cases, which are beyond all doubt in the experience of any alienist in accord with what Kraepelin describes; in other words, he would class as dementia praecox those cases in which there is no doubt about the completeness of the picture, and as "akin to dementia praecox" where the relation is more superficial.

In view of the fact that Dr. Meyer is here to speak from this text, and is to be followed by Dr. Dercum, whose recent contribution to the *Journal of Insanity* contains so much of interest in connexion with the subject, it is clearly a duty to leave the discussion of details to those who are so competent to deal with them, and merely refer to the broad generalities.

If it can be shown what is the pathological basis of the morbid conditions which make the genesis of dementia praecox at the evolutionary epoch of youth to adolescence, a wonderful step forward will have been taken, and investigators must not overlook this, and I would ask Dr. Meyer and Dr. J. Turner particularly what hope we have of a solution of this most important problem? The morbid conditions must have a definite basis, and until we know what that is there must be no end of groping. As Clarence B. Farrar has so clearly pointed out, "their exact etiology is entirely obscure, and so long as this is the case, so long as the exact causes are unknown, which must be in operation in order that the disease may make its

appearance, it is futile to assert that they may not become operative beyond as well as during the puberal epoch."

If it could be shown, for example, that the origin was purely toxic, a reasonable basis for treatment on rational lines, or even for prevention, would exist. Without definite scientific knowledge this is scarcely possible, or even probable, and we cannot overlook the fact that the degeneration processes appear most frequently, if not altogether, in persons with a bad heredity. The toxic theory is, of course, one that has much to commend it, as certain of the developments in the course of dementia praecox apparently are the outcome of toxic conditions, but that this will prove to be the whole explanation is extremely doubtful. The problem is evidently a more complicated one than that; we must look for further light, not only to the clinicians but the pathologists in particular. Possibly the whole truth will not be known until the physiologists have made clear the functions of some of the glandular structures and their relation to the nervous system.

To the conservative mind the situation is not hopeless, and certainly if any form of mental trouble deserves careful and earnest investigation it is this, where the prognosis is so invariably bad. Still, the fact that many patients improve and a few recoveries are said to take place, should prove a stimulus to the most thorough and exhaustive study. And yet, the facts regarding prognosis and treatment thoroughly digested?

In discussing these questions briefly in Boston, at a recent meeting of the American Medico-Psychological Association, I took it for granted that the term was to be used in a limited sense, with particular reference to the three classical forms as described by Kraepelin, rather than to the allied states about which so much is being said and written. It was thought well to be brief and cautious, as so much difference of opinion exists in regard to the proportion of dementia praecox admitted to various hospitals for the insane. Kraepelin places the percentage at 14 per cent. or 15 per cent. Some enthusiasts in America state it at about 40 per cent.

Then, again, when the subject of prognosis is considered, the question, "What is a recovery?" at once crops up, and when we compare facts with statistics we are confronted by the suspicion that the word "recovery" conveys a very different meaning to alienists of varying mental types. Many of the so-called recoveries from dementia praecox should not be classified as such. Modern methods of clinical investigation have not as yet been long enough in use to enable us to speak definitely of the prognosis, and when it is remembered that very few alienists agree regarding the classification, it is reasonable to accept, to a certain extent, the ancient dictum which tends to a belief that dementia is a condition dependent on structural changes that preclude the hope of recovery.

Possibly to make such an actual statement is going further than is justified by actual facts, because certain cases which seem fairly to come under the heading "dementia praecox" recover; and yet the proportion is so small that they may almost be regarded as the exceptions which prove the rule.

When we consider that dementia praecox generally takes years in its development; in fact has often reached what might be called the terminal stages when the alienist sees it, the reasons for the grave prognosis are at once apparent.

To assert categorically that this disease is incurable is of course going too far, and such a statement cannot be justified, but it is not beyond the strict truth to say that most of the so-called recoveries should be classed as cases of remission, or put under the heading "improved." That the term "remission" is to be applied to many of these conditions is sooner or later revealed; in fact, so many of these people are abnormal from an early age, that it is difficult to know what should be called the normal standard to judge them by. Possibly, the striking improvement that occasionally takes place in apparently hopeless demented katatonics, improvement so marked that they are able to accept a limited amount of responsibility in daily life, once more leads to errors in the classification of recoveries.

What science demands is an accurate statement of facts. It would be unwise, then, at this stage of investigation, to attempt to even approximate the percentage of recoveries from what is evidently one of the most incurable of all mental diseases.

Nothing more profitable than a discussion of this whole vexed question could concern this meeting, and we are fortunate indeed in having such competent authorities as those who follow me to throw new light on it.

**CONCEALED ACCIDENTAL HEMORRHAGE.\***

BY ADAM H. WRIGHT, B.A., M.D., M.R.C.S. ENG.

Professor of Obstetrics, University of Toronto.

ONLY a very limited portion of the large and complex subject of concealed accidental hemorrhage will be dealt with in this paper—that form which occurs in the latter part of pregnancy before effacement or dilatation of the cervix.

There is by no means a consensus of opinion as to the symptoms of this condition. When first described by Baudelocque in 1818, Mme. Boivin said that neither she nor Mme. La Chapelle had seen an instance in over 42,000 labors.

It is now generally conceded that many such cases are overlooked, and that the condition is more common than was formerly supposed. My own experience confirms this, and I believe that in the majority of cases it is not even suspected by the physician in charge. Although my field in obstetrics has been small compared with that of Mme. Boivin and others, yet five cases have come under my observation, and I am in accord with those who believe that a large proportion of the sudden deaths in pregnancy are due to this condition.

The following description from Storer gives us a striking picture of the condition of a patient suffering from such a traumatism:

“There is . . . a type of cases in which the mortality is . . . nearly 83 per cent. Of this the following would be a picture: A woman in the last months of pregnancy, very likely a few hours after a slight blow or some great emotion, is suddenly seized with sharp cutting pain in the upper uterine zone. After a short time this pain is replaced by a dull, continuous ache. The attack is very much like an ordinary colic in many ways, and, in lack of anything like labor pains or external hemorrhage or anything else to call especial attention to the uterus, the woman is treated under that supposition. The faintness and clammy skin are looked on as the natural concomitants of nausea, and not till valuable hours have been wasted does the increasing prostration suggest to the attending doctor that he has to do with anything more serious than colic. Meanwhile the uterus has been slowly increasing in size, eventually paralyzing by over-distension any tendency on its part to contract, while the cervix is hard as iron and totally undilated and unyielding, and the patient going to die unless the hemorrhage is stopped. Here the indication is

\* Read at the meeting of the British Medical Association, Toronto, August, 1906.

plain enough, till the uterus is empty the patient's life is in extreme danger, but how to empty it is by no means an easy question. It is no trifling matter to dilate such a cervix not softened by the previous slow advent of labor. There are many cases on record where a couple of hours or so were spent in fruitless attempts at dilatation, and after all the woman died undelivered, so that if the dilatation could at last be accomplished the constant and long-continued hemorrhage had been too great for reaction to take place."

#### SHOCK.

I have not seen any such distension of the uterus, nor do I think death is generally due to the "long-continued hemorrhage," and my chief aim is to show that in a certain, and probably large, proportion of cases of concealed accidental hemorrhage the symptoms are due to shock only, and not at all to loss of blood. The consideration of certain features in connection with two cases will be found interesting in this connection.

CASE A.—Patient, aged, 33, 4-para. Labor pains commenced at midnight; very severe pain at 8 a.m. Seen by Dr. W. P. Caven at 9.30; condition very serious. Doctors McKenzie, Ross, and I were summoned; patient anesthetized and delivered (*accouchement forcé*) at 11.30; death shortly after delivery. Dr. McKenzie expressed his surprise at the serious result from the outpouring of so small a quantity of blood (apparently less than one quart).

In this case we thought the loss of blood was to some extent the cause of death, accepting as we did at that time the view of Goodell, Holmes, and others, that the "anemia rendered the woman less able to withstand the shock incident to forcible dilatation" (Holmes).

The essential feature of shock is its sudden onset, while the main characteristic of collapse is extreme exhaustion, due in many cases to loss of blood. While our patient suffered from both shock and collapse, it is likely that the shock largely predominated. Further reference will be made to this case in speaking of treatment.

CASE B.—Patient, 3-para, aged 34, when about seven months advanced in pregnancy was suddenly seized with severe abdominal pain while driving. The pain was produced by a jar caused by the carriage wheel passing over a stone. The patient went home (only a short distance) as soon as possible, and Dr. Wright saw her within a few minutes and found her cold, pale, weak, and suffering intensely from "tearing" pains over the abdomen.

*Treatment.*—Artificial heat applied to surface; two doses of nupenthe, followed by hypodermic of morphine, were given; pain much diminished in an hour and a half, after which she rallied with the aid of small doses of strychnine and stimulants, and was

comparatively comfortable in three to four hours. Four days after the accident uneventful labor occurred, the placenta showed evidence of being nearly half detached, and a comparatively small clot of blood was found—less, I think, than would be produced from a pint of blood.

This case was very interesting and instructive. I was fortunately able to reach the patient soon after her accident, and remained with her some hours. The shock was so intense that at one time I thought she would die. Concealed hemorrhage was suspected, but no enlargement of the uterus could be detected.

In a very small proportion of cases the outpouring of blood causes the stretching of the uterine walls; the amount of blood thus lost becomes then an important feature and may cause dangerous collapse. Anything of the sort, however, I have never seen, and the condition must be exceedingly rare.

I was amazed to find that such a small quantity of blood-clot could have produced results so momentous, and yet this should not have caused much surprise when one considers the disastrous results produced by the injection of water between the membranes and the uterine walls for the purpose of inducing labor as practiced fifty years ago. Simpson, in 1861, reported two cases in which such injections caused death. In both instances only a few ounces were injected. He also said that both cases occurred in the hands of most accomplished accoucheurs.

#### TREATMENT.

Although Goodell's paper on the subject was a masterpiece, it is by no means certain that it accomplished much good. It seemed to give a singular impetus to the operation of *accouchement forcé*, especially on this continent, and the general feeling manifested during the discussion of two years ago was that this is an exceedingly dangerous procedure.

Goodell described in a very graphic way the symptoms of the accompanying shock, but he did not properly differentiate between the shock and the exhaustion from loss of blood. He said the cardinal rule in accidental hemorrhage was to measure the loss of blood by the severity of the collapse. He told us as soon as an accurate diagnosis was made it was imperative to deliver the woman as soon as possible. He repeated this to some extent in his closing sentence, which was as follows:

"Whenever the symptoms are obscure and the diagnosis doubtful, act as though the case were one of concealed hemorrhage and follow the precept laid down by Theodore Mayerne for the management of floodings: 'Praestantissimum remedium est foetus extractio.'"

Holmes, in his admirable paper on this subject, in quoting

this sentence, says: "Apply this precept too early rather than too late."

In considering treatment it should be remembered that certain methods which are useful in some forms of accidental hemorrhage are absolutely contraindicated in the concealed variety. In the cases which I have reported to-day there was a vast difference in the two conditions. In Case A the hemorrhage occurred during labor after effacement of the cervical canal and some dilatation of the os. Under such circumstances the modified *accouchement forcé* required little or no violence. In Case B the cervix was intact and the os "as hard as iron."

*Accouchement forcé* during shock with such symptoms as I have described almost invariably causes death, and the following should also be avoided: friction, electricity, nitroglycerine, amyl nitrite, ergot, quinine, rupture of membranes, steel dilators, various kinds of dilating bags, and the vaginal plug.

It is both interesting and profitable to read the histories of such cases in the days of Murphy, Ramsbotham, Oldham; important lessons may be learnt from them as to treatment. One method was what we may term the expectant plan—that is, to treat the various symptoms according to their urgency or severity. The administration of opium for pain and shock was quite common, although the doses were frequently too small. As for my treatment in Case A, after slight labor pains had continued for some hours, the uterus passed suddenly into a condition of spasmodic contractions with continuous pain, amounting to intolerable anguish, but accompanied by no expulsive efforts. Unfortunately the woman was not seen by a physician for about an hour and a half after the commencement of this storm; thus valuable time was lost, and the condition had become very serious. It seems possible, if not probable, that if suitable treatment had been instituted for shock, when it was urgently needed, and before any attempt was made to empty the uterus, the result might have been different.

In Case B the patient received prompt treatment for shock, which it seems reasonable to suppose saved her life.

#### CONCLUSIONS.

I have not had enough experience to speak with authority, but venture to make certain recommendations as to treatment. What I have called shock is a serious condition, which, although produced more or less suddenly, is due to a traumatism to some extent continued and sometimes repeated, and it must be treated.

1. Give 1-2 grain of morphine by hypodermic injection; give a second dose of 1-4 grain in half an hour or less if required; give a third dose of 1-4 grain in another half-hour if required.

This means 1 grain in one hour. It seems better to name definite doses but of course this must be left to the judgment of the accoucheur. This recommendation is made notwithstanding the fact that some surgeons think that after shock is established morphine given alone may cause depression. The aim should be to administer morphine before profound shock is produced. However, pain is such an important element that the morphine is probably always indicated, but it may be safer to administer with the first dose 1-120 grain of atropine.

2. Lower the patient's head and elevate the foot of the bed.

3. Keep up the body temperature by the external application of artificial heat.

4. Administer a high enema of salt solution. We are told by Chile and Malcolm that the veins will not absorb fluids during shock, and therefore any hurried attempt to inject the solution into the veins is not advisable, but during recovery from shock the veins absorb the fluids rapidly, even by the bowel. Subcutaneous or intravenous injections may be sometimes advisable.

5. Give small doses of strychnine (not more than two doses of 1-30 grain each by hypodermic injection within one hour). Large doses of strychnine during shock are exceedingly dangerous.

If relief is afforded by these means no further active treatment may be required. If, however, it is impossible to relieve the symptoms, we may be placed in a better condition for operative procedures. I give no definite opinion as to when operation should be considered necessary, but think that in a certain proportion of cases it should be performed within a few hours. Most modern surgeons and obstetricians, both in the Old World and on this continent, agree that the operation of election under such circumstances should be either vaginal or abdominal Cæsarian section.



## *Selected Articles.*

### THE RATIONAL TREATMENT OF FEVER IN THE PUERPERIUM.\*

BY SAMUEL M. BRICKNER, M.D.,

Adjunct Attending Gynecologist, Mount Sinai Hospital, New York.

In the practice of medicine and surgery in general, certain underlying principles, scientifically applied, must always be the guides to the treatment of disease. This holds true of internal medicine, of surgery, and of all the specialties. Without a diagnosis, treatment is either futile or harmful. Diagnosis is made with the aid of two great factors,—the history of the patient and of his illness, and the result of the physical examination.

It has always been a source of mystery to me why such striking contrast should exist between all the other branches of medicine and the particular subdivision which has to do with fever arising during the puerperium. We are not contented, for instance, in internal diseases, unless we have finely drawn and accurate distinctions in diagnoses; while we have been accustomed to satisfying ourselves with the promiscuous label "puerperal sepsis" when a parturient woman becomes subject to infection of one kind or another, totally ignoring the basic lesions. As a result of this anomalous condition, the treatment of affections accompanied by fever in the puerperium has been woefully misunderstood or misinterpreted. There is not and cannot be any routine treatment of puerperal sepsis as an entity. As in all other phases of disease, correctness or efficiency of treatment depends upon a correct interpretation of the cause of the fever, and upon an efficient application of therapeutic measures adapted to the various types of disease which manifest themselves during the lying-in period.

Since this paper is intended to be exclusively practical, I shall avoid the discussion of the prevention of septic conditions as far as it relates to the ante-partum period, and shall content myself with submitting to you a brief outline of some of the varieties and forms of fever as they arise during labor and in the puerperium. It may not be amiss, however, first to say a word as to the methods of diagnosing these conditions. A general physical examination is absolutely essential, for the pyrexia may well

\* Read by invitation, before the Williamsburgh Medical Society, January 9, 1907.

have its source in a lobar pneumonia, in a pulmonary infarct, in a mastitis or in a thrombo-phlebitis of the femoral vein, and these all without any septic source in the genital tract itself. Moreover, it is by no means rare to have a typhoid fever, malaria or any of the acute infectious diseases make itself known during the puerperium as well as at any other time. But even if any of these conditions is present, the local examination must never be omitted. And this must include not only a complete and thorough bimannual examination, but an inspection of the visible parts of the genital tract as well. Take advantage, if possible, of the microscopic aids to diagnosis also. A leucopenia where a leucocytosis was expected, in a recent consultation case, turned the diagnosis from sepsis to typhoid fever. A negative culture from the intrauterine contents and a negative blood culture will often prove of comfort while the exact diagnosis is still *sub judice*. Positive cultures, too, are valuable not only in establishing positive diagnosis, but in suggesting the line of treatment to be followed.

We shall have a better comprehension of what to do in the different varieties of fever in the puerperium if we sketchily go over the types of pathological conditions. We must first make the great subdivisions of extra-genital and intra-genital sepsis. Under the former, the principal lesions encountered will be mastitis and phlebitis of the femoral veins. The treatment of inflammation of the breasts has become much simplified of late by making small incisions only to permit the escape of pus and by applying the Bier suction treatment thereafter. The treatment of the breasts before the inflammatory mass has broken down is best accomplished by ice-bags and properly applied massage; but the ideal treatment is prophylactic, by keeping the nipples scrupulously clean during pregnancy and during the nursing period and promptly and efficiently attending to cracks and fissures in the nipples when they arise. For this purpose I have found nothing equal to a 30 per cent. ichthyol ointment in white vaselin, compelling the child to nurse through a nipple shield as long as it is applied.

Phlebitis of the femoral vein or veins is a complication which, although it may give rise to high temperatures, is not necessarily on that account of a septic nature. I have found it particularly liable to occur in women with rapid labors and in those who have varicose veins of the leg. It is an unavoidable complication and if it is not of a septic nature will usually yield to rest, elevation of the leg and the application of heat or cold.

The conditions which most interest us, however, are those of intra-genital sepsis. These again may be subdivided into two groups, the extra-pelvic lesions and the intra-pelvic. The former include vulvar and vaginal forms of sepsis and conditions in the

abdominal wall, such as necrosis. This I can dismiss in a word, as it is always secondary to necrosis of the cervix and its adjacent structures and is in all instances due to undue pressure exerted by instruments during labor. The vulvar lesions arise by infection of parts injured during labor. They may be nothing but bruises covered by a dirty gray membrane, or there may be a moderate or extensive necrosis of tissue. The vaginal injuries are usually of the same general nature, although here, too, the gonococcus may play an important rôle. At this point, I may be permitted to emphasize one of the most important elements of this brief address. It is in this class of cases that the gravest error is often committed by him who is not a careful observer. The physician is not satisfied with finding merely the external genitals involved as I have described them; but on finding his patient with a moderate rise of temperature, preceded perhaps by a chill, he proceeds at once to give an intrauterine douche, with the result of carrying the infecting material from the vulva, where it was harmless, into the uterus, where it may become fatal. Some of the most violent cases of uterine sepsis which I have seen in consultation and hospital practice, have originated in this manner. The treatment of vaginal or vulvar sepsis is of the simplest kind. A mild antiseptic vaginal douche may be given (lysol, sublimate), an iodoformized gauze strip is to be laid in the vagina, and the vulva covered with a bland wet dressing (boric acid, liquor Burrowii). But the vaginal douche must never be given until the vulva has first been cleaned.

Turning now to the intra-pelvic conditions giving rise to sepsis, we may have involvement of the cervix, the uterus, the tubes and ovaries, the parametria or the peritoneum. It is in this anatomical field that one encounters those cases in which absolute knowledge of the pathological process is essential if the patient is to be helped; although I regretfully confess that even with this knowledge, we are often unable to be of the slightest service in averting a fatal termination.

Since the short time at my disposal prevents a thorough consideration of all the phases of sepsis invading the upper part of the genital canal and the peritoneum, I prefer to confine myself to the treatment of some of the septic conditions of the uterus, the appendages and the parametria.

Taking up the uterus first, there are three conditions concerning which I shall speak. The first is a condition arising antepartum, concerning which much confusion has existed. I refer to premature rupture of the membranes which is not followed within eighteen to twenty-four hours by labor pains. Under these circumstances, unless the most rigid aseptic measures are preserved, and the vulva is adequately protected, a direct line of communication exists between the external world and the interior

of the uterus. Infection is thus easy, but is, as a rule, of the sapremic variety and subsides under the appropriate treatment of intrauterine irrigation. The prophylactic treatment of this condition is to induce labor if it does not spontaneously begin within twenty-four hours after the rupture of the membrane.

The next of the uterine forms of puerperal infection to be considered is also one concerning which there has been much misunderstanding and an enormous amount of useless therapeutic endeavor. This is retained secundines,—either of small portions of placenta or of shreds of membranes. I shall go somewhat deeply into this theme, for its importance deserves thorough discussion. The attending physician always knows, or should know, whether or not the entire placenta and its appendages have come away, for no accoucheur performs his entire duty to his patient unless he examine the placenta and the membranes with the greatest minuteness after their delivery. The cotyledons should be complete and the membranes intact except for the opening at the site of rupture. It is, however, a false theory that advises entrance into the uterus for a small piece of placenta or for a shred of membrane. These will eventually come away by themselves without giving rise to any disturbance if the labor has been conducted aseptically, or if the uterus has not become the site of an infection before labor. The hand inserted into the uterus is more dangerous than the small piece of placenta or secundines.

Let us now assume that the physician has thoroughly satisfied himself at the time of labor that the placenta and secundines were delivered in their entirety. In three or four days the patient has an elevation of temperature, with or without a chill. What is the routine treatment as generally practiced? It is to curette the uterus. This is, perhaps, one of the most serious and often fatal blunders that can be made. There is no object in curetting an empty uterus, and the result obtained is usually only to break down the protecting barrier with which the blood sinuses and lymph channels have been provided. There is but one condition in which it is wise or safe or sane to curette the puerperal uterus,—that is when it is positively known that portions of placenta have not come away. If there is doubt about it, it is even better to leave the placenta in place than to curette without proper assistance, and without aseptic conditions. I saw a uterus but two weeks ago in which a placenta had been retained for a year and a half with no bad symptoms except occasional menorrhagia.

May I say one word more on the subject of curetting? The sharp curette is absolutely out of place in the soft and friable puerperal uterus. The blunt loop is the only instrument suitable to use under these conditions, and this can often be laid aside for the finger. But if a curettage is decided upon, let it be done cleanly, with proper assistance and, if necessary, with anesthesia.

I truly believe that less harm is done by a retained placenta than by the curette used by the physician alone with the patient simply placed across the bed and the operation performed with the same *sang froid* as a hypodermatic injection is given!

I come now to the third of the uterine forms of sepsis which can be easily and successfully treated if the proper diagnosis is made. I have seen a number of cases in which on the fifth, sixth and seventh day the patient has a chill followed by high fever. An examination quickly discloses the fact that the heavy uterus has fallen backward, lying either in retroversion or in retroflexion. Because of the position of the uterus, it is impossible for the lochia to escape and they rapidly putrefy. The condition of the patient may look very alarming, but after a thorough intra-uterine irrigation with salt solution and replacing of the uterus—keeping it in position with a good sized gauze packing in the posterior fornix—the patient will be on the high road to recovery within twelve hours. This condition can be avoided by letting the patient lie on her side or on her abdomen frequently after the second day post-partum, and, of course, she must do this daily if she has already suffered from a retroflexion in the puerperium. There is no occasion for keeping women entirely on their backs during their lying-in period; they will avoid at least this form of sapremia.

I would like to add one word as to the method of giving intra-uterine douches. There is but one proper way. The cervix must be exposed by a tri-valve speculum or by Briesky's or Simon's speculum, then seized with a tenaculum or bullet forceps and brought well in view. The vagina, of course, must be first thoroughly cleansed. The cervix is then carefully wiped off with wet sponges and the intrauterine douche point or catheter inserted. The method most in vogue, of placing the finger against the cervix and carrying the douche point through the vagina over the hand into the uterus, can accomplish one thing with certainty—the carrying of infectious materials into the uterus from the vulva, the vagina and the hand.

Let us now take up the tubes in their relation to puerperal sepsis. They are never involved alone. When they become the seat of an acute infectious process, there is always an accompanying peritonitis of a local type, and the tubes and intestines, and often the uterus, ovaries and bladder, become agglutinated into an inextricable mass. The main thing in these cases is to differentiate between tubal disease and parametritis. But it is not an essential thing to do so, for the subsequent course of the illness will determine this differentiation and the treatment of both at first is identical. This consists only of rest in bed, ice-bags or heat over the lower part of the abdomen and frequent, long, hot douches. They are to be operated upon in the acute stage never!

An exudation into the parametria, it is true, may break down in the course of a few weeks and form a pelvic abscess, when it may be opened through the posterior fornix. But an acute pyosalpinx must be left untouched until the process has become sub-acute or chronic. It is then safe to operate; it is usually fatal when attacked in the acute stage.

I have already practically described the treatment of acute parametritis. The diagnosis is easy. One will find a large, heavy uterus, usually quite immovable, imbedded in a dense, hard mass, which fills out the pelvis on one or both sides and in the posterior fornix. Until, or unless, this exudate becomes purulent, hot douches and ice-bags are, and should be, the only resort.

It is possible, sometimes, in a rapid labor, for the lower uterine segment to tear and for a considerable hemorrhage to take place into one or the other of the broad ligaments. I have seen but three such cases in the past six years, so it is not of frequent occurrence. This hematoma may become infected, as it did in one of the cases I saw. There was the usual septic appearance of the patient and the usual phenomena of sepsis, which promptly subsided, however, upon incision and drainage of the posterior cul-de-sac.

I have now discussed the more common and a few of the rarer conditions which give rise to fever during the puerperium. They have been related entirely in a practical manner, which represents the fruit of my experience. I have purposely omitted mention of the fatal conditions, such as septic thrombosis and embolism, pyemia and septicemia, violent septic peritonitis, secondary septic endocarditis, etc., for I thought it would be more valuable to submit for consideration those phases of puerperal fever which yield to suitable treatment when the diagnosis has been made. I wish it were possible, but it is not, for me to offer any suggestion for the treatment of those violent forms of sepsis which mock at our efforts while carrying the patient to the grave. But I will say this: that the doctrine of *laissez-faire* has saved more than one woman, and the most unexpected results sometimes appear when one simply manages his case with stimulants, forced feeding, and the harmless measures of local treatment.

I have tried to give this impression: that puerperal sepsis is no single entity; it may attack any or all parts of the genital tract; the fever during the puerperium may arise in organs remote from the pelvis; no treatment can be successful which is not based upon a diagnosis of the condition that confronts the physician; simple, harmless measures of treatment are the best and the most efficacious. Above all, that man will achieve the best results in obstetrics, by avoidance of septic conditions, who, in the palace or in the hovel, goes about with an aseptic conscience.—*Amer. Journ. of Surgery.*

## School Hygiene.

### HEALTH LEGISLATION.

MR. JOHN BURNS, it is understood, proposes to bring forward during the present session of the British House of Commons a bill to legalize the establishment of milk depots by local authorities to supply sterilized milk for infants. The Infants' Health Society at an influential deputation, including among its members Sir Lauder Brunton, Sir Thomas Barlow, and Dr. Mayo Robson, to advise the President of the Local Government Board of the grave dangers (scurvy, rickets, zymotic diarrhea) which sterilized milk certainly promotes. Mr. John Burns promised to consider earnestly any united and authoritative representations made to him, and a joint committee of the Infants' Health Society, the National Health Society and the National League for Physical Improvement is now preparing such a statement, announcing their practical conclusions as to this proposal.

There can be little doubt that the attitude of the above-mentioned deputation is the right one. It is not cooked milk, but *clean milk* that we want. Once milk is contaminated, it cannot be made pure again.

Another bill now before the House of Commons is that introduced by Mr. Walter Rae, and supported by Mr. Tennant, "To make provision for Vacation Schools and for the Medical Inspection and Treatment of School Children." The clause relating to Medical Inspection, etc., is identical with the amended clause 24 of the Government Education Bill of last session, and it is hoped will receive the general support accorded to that clause. In this connection we may also mention the report of Dr. James Kerr, medical officer to the Education Committee of the London County Council. Dr. Kerr's annual reports are probably the most important documents published on school hygiene and Medical Inspection of Schools. We have here records of some 20,000 children, and extending now over three years. These records are becoming extremely valuable, and correspond with all other similar records, telling a tale of great significance to the nation. To mention only one similar record, Dr. Arkle, of Liverpool, has just published results showing that boys of seven years, belonging to well-to-do people, and attending secondary schools in Liverpool, are on an average 3.8 inches taller than boys of the same age in Liverpool attending elementary schools and belonging to the poorest class! Dr. Arkle says truly that these facts are alarming, and that unless the children are helped in some way to get proper food and to develop physically, the money spent on their "education" is wasted.

To return to Dr. Kerr's report. Dental conditions are fully dealt with. About 2 children in 1,000 use a tooth-brush, and from 90 to 97 per cent. have carious teeth. This explains the Army Recruiting Statistics in regard to teeth. Dr. Kerr does not think there is much hope of getting parents to provide tooth-brushes. He thinks tooth-brushes had better be purchased, numbered, and hung on a rack in school, each child having his own and being made to use it twice daily.

Many other topics are dealt with in this report, which ranks with State papers. We have never seen anything more striking in its way than specimens of handwriting on p. 49, the first dated March, 1905. Child's vision 6-18, showing tremor, ataxic characters and almost complete loss of alignment. Cigarette smoking acknowledged. In March, 1906 (cigarette smoking abandoned a year), vision normal, writing clear, steady, straight and pleasing.

H. MACM.

---

### THE SECOND INTERNATIONAL CONGRESS ON SCHOOL HYGIENE.

---

ARRANGEMENTS for this important gathering, to be held in London, at the University of London (Imperial Institute, City Technical College, South Kensington), August 5th to August 10th, 1907, are progressing rapidly, and everything seems to point to a conference that will have great and far-reaching results.

Eleven sections, dealing with every possible aspect of school hygiene, are now organized, and an exhibition of school building and furnishing appliances will be held in connection with the Congress. It is likely that Canada will be fairly well represented at the meeting, a committee having been organized about a year ago, with headquarters in Toronto, to co-operate with the General Committee in London. The Hon. Dr. Pyne, Honorary President of the Canadian Committee, will, it is thought, probably attend, and the President, Prof. Oldright, has already signified his intention of doing so. The Secretary, Mr. James L. Hughes, sails for England on March 30th, on a three months' leave of absence, and will, it is hoped, assist to represent Canada on this important occasion. Other members of the local committee who have shown special interest are Professor McPhedran, Principal Auden and Dr. C. J. C. O. Hastings, the last-named gentleman having been appointed on the committee as the representative of the Ontario Medical Association.

Full particulars and the programme of the meeting may be obtained from the Honorary Secretaries, Dr. James Kerr and Mr. E. White Wallis, Royal Sanitary Institute, Margaret St., London, W. The President of the Congress is Sir Lauder Brunton.

H. MACM.



# The Canadian Journal of Medicine and Surgery

J. J. CASSIDY, M.D.,

Editor,

43 BLOOR STREET EAST, TORONTO.

**Surgery**—F. N. G. STA R, M.B., Toronto, Associate Professor of Clinical Surgery, Toronto University; Surgeon to the Out-Door Department Toronto General Hospital and Hospital for Sick Children; N. A. POWELL, M.D., C.M., Prof. of Medical Jurisprudence, Toronto University, Surgeon Toronto General Hospital, etc.

**Clinical Surgery**—ALEX. PRIMROSE, M.B., C.M. Edinburgh University, Professor of Anatomy and Director of the Anatomical Department, Toronto University; Associate Professor of Clinical Surgery, Toronto University; Secretary Medical Faculty, Toronto University.

**Orthopedic Surgery**—B. E. MCKENZIE, B.A., M.D., Toronto, Surgeon to the Toronto Orthopedic Hospital; Surgeon to the Out-Patient Department, Toronto General Hospital; Assistant Professor of Clinical Surgery, Ontario Medical College for Women; Ex-President of the American Orthopedic Association; and H. P. H. GALLOWAY, M.D., Winnipeg, Man.; Member of the American Orthopedic Association.

**Gynecology and Obstetrics**—GEO. I. MCKROUGH, M.D., M.R.C.S. Eng., Chatham, Ont.; and J. H. LOWE, M.D., Toronto.

**Medical Jurisprudence and Toxicology**—ARTHUR JUKES JENNINGS, M.R., M.R.C.S. Eng., Counselor for the City of Toronto; Surgeon, Toronto Railway Co., Toronto; W. A. YOUNG, M.D., L.R.C.P. Lond.; Associate Coroner, City of Toronto.

**Physiotherapy**—CHAS. R. DICKSON, M.D., C.M., Queen's University, M.D., University of the City of New York; Electrologist Toronto General Hospital, Hospital for Sick Children and St. Michael's Hospital.

**Pharmacology and Therapeutics**—A. J. HARRINGTON, M.D., M.R.C.S. Eng., Toronto.

**Pediatrics**—ALLEN BAINES, M.D., Toronto; A. R. GORDON, M.D., Toronto; HELEN MACMURCHY, M.D., Toronto.

W. A. YOUNG, M.D., L.R.C.P. Lond.,

MANAGING EDITOR

145 COLLEGE STREET, TORONTO.

**Medicine**—J. J. CASSIDY, M.D., Toronto, ex-Member Ontario Provincial Board of Health; Consulting Surgeon, Toronto General Hospital; and W. J. WILSON, M.D., Toronto, Physician Toronto Western Hospital.

**Oral Surgery**—E. H. ADAMS, M.D., D.D.S., Toronto.  
**Clinical Medicine**—ALEXANDER McPHERDAN, M.D., Professor of Medicine and Clinical Medicine Toronto University; Physician Toronto General Hospital, St. Michael's Hospital, and Victoria Hospital for Sick Children.

**Mental and Nervous Diseases**—N. H. BREMER, M.D., Ontario Insane Asylum; CAMPBELL MEYERS, M.D., M.R.C.S. L.R.C.P. (London, Eng.), Private Hospital, Dear Park, Toronto.

**Public Health and Hygiene**—J. J. CASSIDY, M.D., Toronto, ex-Member Ontario Provincial Board of Health; Consulting Surgeon Toronto General Hospital; and E. H. ADAMS, M.D., Toronto.

**Physiology**—A. B. EADIE, M.D., Toronto, Professor of Physiology Woman's Medical College, Toronto.

**Pathology**—W. H. PEPLER, M.D., C.M., Trinity University; Pathologist Hospital for Sick Children, Toronto; Associate Demonstrator of Pathology Toronto University; Physician to Outdoor Department Toronto General Hospital; Surgeon Canadian Pacific R.R., Toronto; and J. J. MACKENZIE, B.A., M.B., Professor of Pathology and Bacteriology, Toronto University Medical Faculty.

**Ophthalmology**—J. M. MACGALLUM, M.D., Toronto, Professor of Materia Medica Toronto University; Assistant Physician Toronto General Hospital; Oculist and Aurist Victoria Hospital for Sick Children, Toronto.

**Use, Throat and Ear**—PERRY G. GOLDSMITH, M.D., 84 Carlton St., Toronto, Laryngologist and Aurist, Provincial Institution for the Deaf and Dumb; Laryngologist, National Sutorium Association, Gravenhurst.  
**Dermatology**—D. KING SMITH, M.R. Tor., Toronto.

**Address all Communications, Correspondence, Books, Matter Regarding Advertising, and make all Cheques, Drafts and Post-office Orders payable to "The Canadian Journal of Medicine and Surgery," 145 College St., Toronto, Canada.**

Editors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., must be in our hands by the first of the month previous to publication.

Advertisements to insure insertion in the issue of any month, should be sent not later than the fifth of the preceding month. London, Eng. Representative, W. Hamilton Miln, Triquet House, 231 Strand, W.C. Agents for Germany, Saarbach's News Exchange, Mainz, Germany.

VOL. XXI.

TORONTO, APRIL, 1907.

No. 4.

## Editorials.

### DR TRIBOULET'S VIEWS OF THE CAUSES OF TUBERCULOSIS IN CANADA.

DR. TRIBOULET, delegate of the French Government to the Third Congress of French-speaking Physicians of North America, held at Three Rivers, June, 1906, expressed some views as to the causes of tuberculosis in Canada, in a paper read before the Therapeutic Society of Paris, an abstract of which appears in *La Presse*

*Médicale*, January 30, 1907. The author of the paper admitted that Canada had a lower mortality from tuberculosis than France, while in respect to the consumption of alcohol the former country occupied a totally different position to the latter. In Canada the consumption of alcohol is small, because the lower classes of Canadians are less tempted to drink and require alcoholic drinks less than the lower classes in France. Besides, in Canada the enforcement of the laws regulating the retail sale of alcoholic drinks is controlled by the municipalities and by license commissioners, who can lessen the sale of intoxicants by reducing the number of licenses.

In spite of this comparative freedom from the ills of alcoholism, Dr. Triboulet thinks that the Canadians pay too high a tribute to tuberculosis, owing to a high birth-rate and a bad domestic hygiene. Dwellings in Canada, he says, are large and well-lighted, but their occupants live in only one or two of the rooms. In summer windows are not opened for fear of letting in the heat; in winter doors and windows are closed to keep out the cold. Tubercular cases, he says, are economically treated at sanitarium in country places, and the results of tent life at these institutions, winter and summer, are excellent.

We have prepared the following table to show a comparison between the tubercular mortality rate of France and that of Canada:

| A. D. 1901   | Population.      | Deaths from<br>Tuberculosis. | Rate per 1,000. |
|--------------|------------------|------------------------------|-----------------|
| France ..... | 38,961,955 ..... | 150,000 .....                | 3.84            |
| Canada ..... | 5,371,315 .....  | 9,709 .....                  | 1.81            |

In Paris, which in 1904 had a population of 2,714,068, the whole tubercular mortality was 12,178, and the rate 4.50 per 1,000.

The tubercular mortality rate of France is much higher than that of Canada. In a book, published at Paris in 1900, entitled "L'Alcool et l'Alcoolisme," the authors, Drs. Triboulet and Mathieu, ascribed a considerable part of the tubercular mortality of France to alcoholism. Dr. Triboulet, one of the authors of that book, explains, in the paper we are now discussing, the fact that Canada has a less mortality from tuberculosis than France, by the allied fact that the consumption of alcoholic drinks in Canada is small. His remark that the lower classes in Canada get enough solid food to eat and do not require to eke out their daily bread

with wine or liquor shows that, in his opinion, food conditions in Canada are not answerable for any notable proportion of the tubercular mortality of this country.

Dr. Triboulet explains that such tribute as the Canadian does pay to tuberculosis springs from a high birth-rate and bad domestic hygiene. It may be well to note, at the start, that his remark about a high birth-rate in Canada is somewhat inexact, as that condition rightly applies to only one part of Canada, the French-speaking Province of Quebec. Our next table will show that Dr. Triboulet's contention is correct. Whether it be *per se*, from the bodily frailty of some of the children, or only as an incident due to the exposure of a relatively large number of children to infection in different centres, or from both these causes, a large birth-rate is accompanied by a relatively high tubercular mortality.

| A. D. 1903   | Birth Rate<br>per 1,000 | Death Rate<br>per 1,000 | Tubercular Death<br>Rate per 1,000 |
|--------------|-------------------------|-------------------------|------------------------------------|
| Ontario..... | 22.1                    | 13.4                    | 1.30                               |
| Quebec.....  | 36.75                   | 19.6                    | 1.74                               |

In the tenth Annual Report of the Provincial Board of Health of Quebec, p. 51, the Recorder of Vital Statistics states: "Out of the total deaths in 1903, *viz.*, 30,914, there were 11,799 of children under 5 years, being 381 of such deaths per 1,000 deaths at all ages, nearly one-third." At page 52 he states: "The deaths from diarrhea among children under 1 year were 3,045." Diarrhea and enteritis in children are said by medical writers to be due to warm weather, childhood, improper food and bad hygiene. Some go further and hint at a tubercular taint. Thus, the Registrar-General of Ontario wrote in his report for 1900, p. 26, "That the ill-defined disease of chronic wasting in children, with usually diarrhea, may not be due to tuberculosis, but to defective assimilation of food and wasting from other causes, is quite true; but, on the other hand, that the children born ill-nourished and which fail in health almost continuously from birth have, in most instances, the taint of tuberculosis is probably much more constantly true." This last opinion coincides with Dr. Triboulet's opinion, though it leaves the impression that the young children who die of diarrhea suffer from an inherited "taint," whatever that may mean, instead of a direct infection. Although the Recorder of Vital Statistics of Quebec does not mention tuberculosis, hereditary or acquired, as an etiological factor in the mortality of young children dying

in Quebec of diarrhea and enteritis, he does acknowledge that misery and promiscuity are responsible for a large infantile mortality in that Province.

He writes: "Every year we are surprised at having to register so many deaths in early childhood. Alarm is rightly felt in the large centres, where steps have been taken to help the poorer classes to improve the precarious conditions of their existence, spent in misery and promiscuousness." As repressive measures he advises the employment of anti-diphtheric serum against diphtheria, quarantine for contagious diseases, and the disinfection of premises visited by contagious disease. All this is excellent; but something more is required if babes are to pass through the early stages of life without running great risk of catching tubercular infection, even if born in perfect health.

Prof. A. Calmette, of Lille, says ("Etiologie de la Tuberculose Infantile, *La Presse Médicale*, 26 Decembre, 1906): "The baby is contaminated with tuberculosis in *the family circle* by soiled objects, put into his mouth by himself or others. The kisses of his tubercular mother or nurse, the nurse's habit of tasting or testing the heat of the food prepared for the baby, the great amount of creeping done by the baby on the floor of the nursery, the soiled handkerchief, the rattle constantly wet with saliva—all favor the introduction of fresh, vigorous tubercular microbes into the intestines of the baby, whose powers of absorption are greater than those of the adult." One of the chief points to be attended to in the hygiene of the babe, whether it be born with a low power of resistance or be robust; whether it be a sufferer from diarrhea or not, is to remove all tubercular infection from its environment. To suffer a child to live in a badly ventilated room is to lower its power of resistance; but may be obligatory, on account of the poverty of its parents or guardians. To make it breathe air laden with dried tubercular sputa is a reproach to the hygienic authorities and a challenge to tubercular infection.

If Prof. Calmette's teachings were appreciated by every matron in Quebec, and if Dettweiler's pocket spit-cup were used by every Quebec consumptive, wherever and whenever necessary, there would be an immediate reduction in the tubercular mortality of Quebec, in spite of the high birth-rate of that Province.

Dr. Triboulet's complimentary reference to Canadian sani-

tarium treatment is gratifying to physicians in this country; but the efficient repression of tubercular infection among infants in the home, as indicated by Prof. Calmette, is of more economic importance to this country than the successful treatment of consumptives in a hospital.

J. J. C.

---

### THE ELKS' PRESENTATION TO THE WESTERN HOSPITAL, TORONTO.

---

ON Friday evening, March 8th, the Ladies' Board of the Western Hospital were presented with \$1.150 by the Elks, the result of a splendid minstrel show and concert given some weeks ago by that society in Massey Hall.

The presentation was made a bright occasion by the presence of many friends of the hospital and physicians, who had gladly responded to the invitation of the President, Dr. Augusta Stowe-Gullen, and ladies of the board.

Never has an institution in Toronto been blessed with a brighter, more energetic or better fitted complement of altruists than the brainy President and her co-workers. Beginning with a very small equipment, but plenty of resources, such as are only possessed by women of clear vision, creative ability and force of character, they set out to conquer. Even on the lines of the entertainments they organized they took David Harum's advice and "Done to others what they would have others do to them, only done it fust!" Every entertainment they have given so far has been unique and usually the first of its kind given under the india rubber name of charity. But the Western Hospital has never had the dignity of its name lowered, for the amusement arranged has always been worth the price asked for the ticket. Many remember with pleasure the Elks' concerts, and would have been charmed had they been present to see the kindly and manly way their representative presented to Dr. Augusta Stowe-Gullen a silken bag, with its lining of gold. He certainly gave it "like a Lord," and Madame Gullen received it "like a Ladye," with gracious words and an acknowledgment in the form of an illuminated expression of thanks, with deftly drawn symbols of the Order of the Elks and the insignia of the hospital. Then several physicians, who

are both witty and wise, added a few words of thanks to those whom Dr. Price Brown called "Cold-water Vegetarians"; then amid pleasant greetings, flowers and sweetmeats, everybody drank a health (in coffee), and had anyone been cavalier enough to voice the toast, we are sure it would have been "The Ladies, God bless them; the Elks and the Western Hospital," the three-fold toast of Activity, Generosity and Sympathy.

W. A. Y.

---

### COLD BATHS OR PRECORDIAL FRIGOTHERAPY.

---

DR. STEPHANE LEDUC, of Nantes, in a paper published in *La Province Medicale*, 1907, No. 1, advocates the substitution of an ice-bag placed over the heart for cold baths in the treatment of hyperpyrexia.

He has observed that an ice-bag placed over the heart produces in two hours a fall of temperature amounting to one or two degrees (Centigrade). The dangers of hyperpyrexia are obviated in this way and the heart's action becomes regular. In less than half an hour the frequency of the pulse is lessened by from fifteen to thirty beats in a minute, and the pulse beats become strong and well marked. At the same time great improvement takes place in the functions of the nerve centres, which are influenced by the ice-bag placed over the heart just as favorably as they are by cold baths.

Compared with cold baths, precordial frigotherapy has the advantage of being easily and simply applied, is not at all dangerous, and does not expose the patient to fatigue or disturbance.

To produce good therapeutic results it should be employed soon, before hyperpyrexia has accomplished its destructive work. Hence, Dr. Leduc thinks it ought to be employed in all febrile disorders as soon as the body temperature shows a tendency to remain above 102 deg. F., and the pulse to beat more frequently than 110 times a minute.

In practice, a large rubber bag, filled with ice, is fixed with a bandage over the precordial region. Ice must be kept constantly in the bag and the best way is to use two bags, one being substituted for the other, as occasion may require. A double or triple fold of flannel, placed between the patient's skin and the ice-bag,

enables the attendant to regulate the salutary action of the cold in relation to the effects produced, and which it is desirable to obtain. Thus, if the ice-bag is taken away altogether, after the febrile temperature has been reduced to a sufficiently low figure, for several days, it is not unusual to see the fever flame up again. It is preferable, therefore, to proceed step by step, and to diminish the fever-reducing effects of the ice progressively, by increasing the thickness of the flannel interposed between the ice-bag and the patient's body.

Dr. Leduc attributes this general action of cold, applied in a local manner, to the part of the body where the ice is applied. All the blood in the body passes through the heart under the ice-bag and is cooled by it. The blood goes in a cooler condition to all the bodily organs and carries the regenerating coolness to all the anatomical elements of the body, in the same way that a hot-water heating apparatus distributes heat to all parts of a house. In addition to this general action, precordial frigotherapy exercises a local effect in protecting the heart against a lesion, called by Dr. Leduc "thermic" myocarditis. According to his view, in all febrile disorders, and in proportion to the intensity of the fever, the frequently observed weakening of the heart should be attributed to an alteration in the heart muscle, directly produced by high temperature. This thermic myocarditis is probably due to the coagulation of myosin, a liquid coagulated by heat at a temperature exceeding the normal heat of the body by only a few degrees. Up to the present time, myosin has not been thoroughly studied by pathologists, who have only observed it in coagulated muscle plasma; but, in his opinion, thermic myocarditis is the cause of the syncopes and the sudden death, occurring, more frequently than has been said, in fever patients, at the moment when rising from bed they stand up on the floor. In such cases the weakened and diseased heart muscle, which has strength enough to keep the blood circulating while the body is reclining in a horizontal position, stops abruptly, as soon as the blood column, of from 60 to 80 centimetres (24 to 32 inches) above the level of the heart, falls on it "like the blow of a battering-ram."

Precordial frigotherapy, which to a certain extent is antagonistic to this thermic myocarditis, may be accepted as a means of defending the heart in febrile diseases, as much by its direct anti-

thermic effect on the heart as by the general action exhibited in the lowering of febrile temperature.

Then again, precordial frigotherapy exercises a curious effect in relation to anti-thermic medicines: It intensifies the sensibility of the diseased organism to their operation. Dr. Ledue has observed that a dose of eight grains of pyramidon, which had no influence in lowering a febrile patient's temperature, produced a rather alarming fall of temperature in the same patient when the medicine was administered after an ice-bag had been applied to the precordial region. That is to say, that precordial frigotherapy, when an antipyretic medicine is requisite to strengthen its effect, enables the attendant to considerably reduce the dose of the medicine, to the manifest advantage of the patient.

J. J. C.

---

#### DR. GRENFELL'S VISIT TO TORONTO.

---

DR. GRENFELL has interested the entire profession in his great work in Labrador. His lectures, with their views of the coast, its people and glimpses of what the medical missionary has done in the erection of small hospitals and in the administration of creature comforts to the sick as he and his assistants travel up and down that dreary land, few will forget. Mr. Jack Patterson, who so generously furnished the operating-room in the new Woodstock Hospital, met, very fortunately, Dr. Grenfell on the street in this city recently, and, taking him by the arm, marched him into a large instrument house, and practically said "the house is yours," and presented him with an operating table and full set of instruments.

Dr. Grenfell returns to his work in May and many a gift and kindly thought will go with him to brighten his hours in that lonely land, for years yet to be the land of "La longue Traverse."

W. A. Y.



## EDITORIAL NOTES

**The Greatest Men of France.**—The *Petit Parisien* has taken a plebiscite on the pre-eminence of great Frenchmen of the last century. Fifteen millions of answers have been received. The winner of the contest is Louis Pasteur, the world-renowned man of science, who received 1,338,425 votes, Victor Hugo, poet and novelist, running him close with 1,227,103 votes. Gambetta follows Victor Hugo, with 1,155,672 votes. Then come Napoleon I. and Thiers, with 1,118,034 and 1,039,453 votes respectively. Lazare Carnot, organizer of the Republican armies of the Revolution, won sixth place. The order of the names that succeed Lazare Carnot's shows that the French soul to-day vibrates between the primordial patriotic concern as to the defence of French soil and its emotion of gratitude in presence of the great peaceful benefactors of the nation in science and art. The order of the names that succeed Lazare Carnot's is the proof of this statement—Curie, the discoverer of radium; Alexandre Dumas, père, who has charmed several generations of Frenchmen; Dr. Roux, the inventor of the anti-diphtheritic serum; Parmentier, the introducer of the potato into France; then Ampère, the father of dynamic electricity. The fifteenth place was won by Francis Arago, the astronomer and physicist; the twentieth by Chevreul, the chemist. The list is to be continued until 502 names have been voted on. It will certainly be gratifying to the feelings of the physicians of every nation that Louis Pasteur tops the list as the greatest Frenchman of the last century. It will be equally gratifying to all lovers of medical science to see that the names of Curie, Roux, Ampère and Chevreul are revered in the hearts of Frenchmen. The list of nineteenth century celebrities is not limited to the dead, for Miss Sarah Bernard's name wins the sixteenth place. Speaking generally, the idealism revealed in this plebiscite will be a revelation to many who are not familiar with the real French mind. What is England's type of greatness? With all due recognition of the greatness of the discoverer of antiseptic surgery, it is improbable that Lister's name would top the list in a plebiscite of England's worthies during the nineteenth century. That would be a stirring plebiscite, however, and we should dearly like to see it taken up by one of the great English dailies.

**Views held by Drs. Calmette and Guerin as to the Intestinal Origin of Pulmonary Tuberculosis.**—In a paper published in the *Annals of the Pasteur Institute*, August, 1906, No. 8, pp. 609-624, Drs. Calmette and Guerin show that pulmonary tuberculosis is of intestinal, rather than of pulmonary, origin. Different authors have shown, experimentally, that it is possible to produce tubercular lesion of the lungs in animals which have been made to swallow tubercular bacilli. On the other hand, Cornet, Nocard and Rossignol have shown by numerous experiments that the respiratory apparatus appears to be the commonest and surest route by which tubercular infection enters a living body. Drs. Calmette and Guerin proceeded to verify the fact whether dust containing tubercular bacilli is capable of penetrating into the alveoli of the lungs and starting specific lesions in them under normal conditions. In other terms, they wished to show that of two experimentally possible routes of infection—digestive and respiratory—one is practically the only one followed in preference to the other. Their experiments, made on guinea-pigs and cows, show that, when pulmonary tuberculosis by the inhalation method is experimentally realizable, the experiments call for the presence of agencies unlike those present under normal conditions: introduction of a massive dose of tubercular bacilli with the inspired air and direct introduction of the tubercular bacilli into the trachea. Moreover, they noticed that the walls of the alveoli of the lungs immediately participated in the formation of young tubercles, instead of the lesions beginning in the final ramifications of the bronchi, as most frequently occurred when tubercular infection took place spontaneously, and was always the case when it was of digestive origin. Owing to the ease with which pulmonary lesions are produced by the digestive route, through one infecting meal, containing a relatively limited amount of bacilli, the opinion held by these authors as to the extreme frequency of the origin of pulmonary tuberculosis through the digestive canal is confirmed. These researches have also enabled them to discover a rather strange fact. Several cows, after being fed simultaneously with one infecting meal, were slaughtered at different intervals. All these animals reacted by having pulmonary lesions, which healed spontaneously between the thirtieth and sixtieth days, after the one infecting meal. Therefore, animals infected once only by the digestive route with a moderate dose of virulent tubercular bacilli,

recover their health; in three months' time they do not react to tuberculin, and are really *vaccinated* against tuberculosis. On the contrary, animals fed consecutively with two or several meals of tubercular bacilli do not recover their health; their tubercular lesions get worse and evolve rapidly towards caseation. The authors contend that the deeper study of this experimental fact may lead to interesting practical deductions.

**Education of the Public as to the Means of Preventing Consumption.**—In the 1906 report of Dr. R. W. Bruce Smith, Inspector of Hospitals for Ontario, the following remarks on the education of the public in regard to the prevention of consumption appear: "2,877 persons died from consumption in Ontario last year. Many of these deaths might have been prevented if the people properly understood the nature of the disease and appreciated the great danger that arises from the spread of the sporum. In some cities of the United States an anti-spitting regulation is strictly enforced and a fine of \$50 is imposed on any person violating the law. At the Phipps Institute, Philadelphia, where there is daily a large attendance of out-door patients in all stages of the disease, a card containing rules for the guidance of patients is issued to each person. Many thousands of these cards have been distributed and the result has been that the public is now learning the simple but effective ways by which the disease may be prevented. . . . One of the many interesting features in the work being carried on at the Phipps Institute I found was that all the nurses there were themselves former patients, who had been cured by the open-air treatment at the Pennsylvania State Sanitarium." The last statement in this quotation gives a grain of comfort to physicians who place little confidence in assurances as to the definite cure of consumptives. One remark in Dr. Smith's narrative conveys an obvious lesson to physicians, and it is this: The nurses at the Phipps Institute were wise in their own behalf in keeping up the cure of tuberculosis, of which air, rest and food are the essential features. It would be a mistake to suppose that a genuine consumptive can obtain the benefit of these curative agencies for a year or so, and afterwards return with impunity to a life of hard work, bad air, and poor food. To stay cured the consumptive must continue to lead a thoroughly hygienic life, and even though faithful to that alliance, the victory of health will be hard

to win if he is poor. Besides, the statistics of the Brompton Consumption Hospital show that the nurses and attending physicians have been exempt from tuberculosis. Perfect cleanliness in the wards, complete destruction of the deadly sputa, and you have freedom from tubercular infection in persons waiting on the sick. Such conditions are obtainable in a sanitarium. To get them, or even an approach to them, outside of a hospital, is a question which hygiene is trying to solve.

**Care of Feeble-Minded Women in Ontario.**—Dr. Smith also draws attention in his report to the necessity of providing a special refuge for feeble-minded girls without proper custodial protection, of whom there are at least 500 in the Province. On account of there being no other place for them, many of this class have been sent to asylums; others are kept in the refuges, among the old people. The establishment of an industrial refuge is recommended for the proper care of these girls. It is stated that in several States of the neighboring republic such institutions have been established and are now carried on successfully. It is very probable, therefore, that an institution such as that recommended will have to be established in Ontario, if for no better reason than to assist in minimizing the evils arising from a bad heredity.

**The Survival of the Typhoid Bacillus, as influenced by its Presence in Waters of Different Degrees of Purity.**—Dr. Savage in "Bacteriological Examination of Water Supplies," shows that the typhoid bacillus differs from the common bacillus coli and the proofs of the difference are its behavior with Widal's test and with Pfeiffer's test. The typhoid bacillus is not much changed by association with the bacillus coli and saprophytes. When introduced into water it rapidly dies; but it lives longer in a pure water than in an impure one. For instance, in unsterilized Thames River water the typhoid bacillus lived 9 days; in sterilized Thames River water, 48 days; in unsterilized Loch Katrine water, 17 to 19 days; in sterilized Loch Katrine water, 39 to 51 days; in deep well water, 33 days; in comparatively pure Lake Michigan tap water, it lived up to 7 days; in Chicago River water (impure), 3 or 4 days. The major part of the typhoid bacilli introduced into sewage-laden water perish in 3 or 4 days. Experiments made by Jordan and Russell show that typhoid bacilli exposed to the action

of flowing lake water (a spring-fed inland lake), lived 8 to 10 days; exposed to the action of sewage bacteria, 3 to 5 days. The presence of oxygen dissolved in water enables the typhoid bacillus to live longer in that water than if little or no oxygen were contained in it. Again, naked typhoid bacilli exposed in water perish more quickly than if they are mixed with feces. The three essential factors of water purification are: *sedimentation*, *diminution* of the food supply of the bacteria in the water, and *dilution* with pure water. Sedimentation is the most important means of water purification. It carries down to the bottom and sides of a river, to the bottom of a reservoir or lake, great numbers of bacteria, depriving the water of nutrient materials, the food supply of the bacteria. Jordan found sedimentation the main purifying cause in the sewage-laden waters of the Illinois River below Chicago. Twenty-five miles below Chicago the Chicago sewage was not discoverable in the river water.

**Uncinariasis in Porto Rico**—In a paper published in the *Military Surgeon* (January, 1907), Captain Bailey K. Ashford, United States Army, Honorary Member of the Porto Rico Anemia Commission, gives valuable data as to the causes, pathology and treatment of uncinariasis. This disease is very common among the barefoot laborers (peons) of Porto Rico, particularly those who labor on coffee plantations. As they go barefoot, the skin of their feet is exposed to the attacks of larval hookworms. Hookworms swarm in the ground of gardens and coffee plantations at Porto Rico, being expelled there in the feces of the laborers, who defecate on the ground. The larvæ of the hookworms pierce the healthy skin of the barefoot laborers, causing ground itch (mazamorra) in them. Afterwards the larvæ reach the lungs, probably by the venous system, right heart and pulmonary artery. Schaudinn, Looss and others trace the larvæ from this point up the bronchial tubes and down through the pharynx to the stomach and duodenum to their final resting place in the upper jejunum. Autopsies made by Captain Ashford showed that hookworms were found attached to the intestinal mucous membrane; several worms were removed with the bit of intestine to which they were clinging. Sections made and photographed by Dr. Gray, of the U. S. A. Medical Museum, show that the mouth capsule of the hookworm is filled with denuded submucosa, and its intestine with columnar

epithelial cells in various stages of degeneration. The lesions met with clinically were: (1) Probably a damaged kidney; (2) a catarrhal inflammation of the upper jejunum and often of the duodenum, with very superficial erosions, but not ulcers; (3) a weakened heart; (4) a more or less profound secondary anemia, which may take on all the characteristics of an essential anemia, so far as we know them, and prove fatal, even after the expulsion of all uncinaria; (5) fatty infiltration and degeneration of the liver in severe cases. The most efficient vermicides were thymol and beta-naphthol. The administration of either of them once a week was sufficient. The dose of thymol is not given; the dose of beta-naphthol should never exceed two grams. After the first dose thymol expelled 76.85 per cent. of the total number harbored; beta-naphthol, 72.34 per cent. After the fifth dose of thymol 99.79 per cent. had been expelled; after the fifth dose of beta-naphthol, 98.73 per cent. In recognition of the scientific, clinical and educative work done by the Anemia Commission, the Legislature of Porto Rico in 1906 appointed a permanent Anemia Commission, and provided a grant of \$50,000 for their work.

J. J. C.

---

**PERSONALS.**

---

THE *Indian Lancet*, Calcutta, a weekly journal of medicine, published January 7, 1907, Dr. Cassidy's article on "Yellow Fever," originally published in *C. J. M. S.*, October, 1905.

DR. GEORGE ELLIOTT, Editor of *The Dominion Medical Monthly*, has the sympathy of the entire profession in Toronto for the unspeakably sad and sudden bereavement that befell him in the death of his beloved wife early in March.

ERRATUM.—In editorial note, "The Mortality of Paris during the Nineteenth Century," *C. J. M. S.*, March, p. 175, "4.56 per cent." (fifth line from the bottom of the page) should be "4.56 per 1,000."

# Obituary

PROF. GEORGE A. PETERS, M.B. (TOR.), F.R.C.S. (ENG.).

In the untimely death of Professor Peters on the 13th of March the profession of the Province lost one of its most brilliant ornaments, the University of Toronto one of her worthiest and most distinguished sons, and her Medical Faculty one of the sanest, most useful and most indispensable teachers. His knowledge as



THE LATE PROF. GEORGE A. PETERS, M.B. (TOR.), F.R.C.S. (ENG.)

a physician, his skill as a surgeon, his mechanical ingenuity, his readiness and resourcefulness in emergency, were well known to all: but it was reserved for his intimates and familiars to realize to the full the probity of his life, the integrity of his character, his amiability and affectionate disposition, the true value of

his example, and the influence upon his environment of his scathing scorn for all that was sordid, mean and low. A bare narration of the salient points of his career will suffice to point the moral of a life well spent, to adorn the tale of more than ordinary accomplishment.

Born in the Township of Eramosa in the County of Wellington, near the Village of Fergus, on the 16th of July, 1859, he was early thrown upon his own resources by the successive deaths of his mother, father and stepmother, so that at the age of 13 or 14 years he found himself obliged to earn not only his own living, but to contribute to the support of two half-brothers and a half-sister as well. How he succeeded in this Herculean task, is sufficiently attested by the fact that they all acquired a High School education, and that the three boys graduated in medicine from the University of Toronto. But the strenuous toil of days behind the plough and in the harvest field, when the adolescent nervous system was providing the energy for the labor of an adult, and the much-burning of the student's midnight oil, doubtless laid the foundations of those vascular degenerations, which two years before the end revealed themselves in the attacks of angina pectoris, to which he ultimately succumbed. It was his good fortune during his High School course to come under the teaching (by both precept and example) of Dr. John Seath, the present Superintendent of Education, and he often gratefully alluded to this fact. His course in the University was brilliantly successful, and he graduated with honors and the Starr gold medal in 1886.

After a year's residence as *interne* in the Toronto General Hospital, during some months of which the duties of Medical Superintendent devolved upon him, and spending some time as a demonstrator of anatomy in the University of Toronto, he went to England, where, after a few weeks, he took the primary examination for the Fellowship of the Royal College of Surgeons, and six months later the final, an unprecedented accomplishment for a Canadian still without a parallel.

Returning to Canada, he began to devote himself more particularly to the surgical work of his profession, but it was not until 1900 that he concentrated his entire attention upon it, and soon forged ahead to the front rank of operating surgeons, his wide and accurate knowledge of anatomy, his mechanical ingenuity and skill, and a confidence born of an innate sense of power, conspiring to make supremacy easy to him. At the same time, the instinct of the teacher (doctor) which from practice had largely developed before his entrance into medicine, received a new awakening and impetus, and it was speedily acknowledged that he possessed in a very high degree that *Divinus Afflatus* which



enables one to reflect the rays of one's own knowledge into the dark places of others' intellects.

These two considerations alone, quite apart from the inestimable value of his association as a man, colleague and counsellor, oppress the members of the Medical Faculty at the present moment with a sense of irreparable loss.

The teaching of clinical surgery naturally followed upon the teaching of anatomy, and was pursued with ever-increasing success, and when, at the time of the amalgamation of the Medical Faculties in the University, it was deemed expedient for the purposes of the amalgamation to make the Chair of Surgery temporarily a quadripartite one, his eminence and success as a surgeon led to his appointment to the chair. Unhappily, the failure of his health prevented his exercising his great powers in that behalf to their full extent, but up till the end he discharged his duties with a zeal, ability and force which impressed his character deeply upon the minds of his students, to whom, though dead, he yet shall speak "while Memory holds her seat."

His surgical alertness and inventiveness were attested by his various modifications of the usual operations of plastic surgery (in which he excelled), by the coat-sleeve amputation of the appendix, which he was the first to do, by the transplantation of the ureters into the rectum in cases of ectopia vesicæ, which he made his own, and by his method of proctoplasty and suspension in cases of procidentia recti. His mechanical ingenuity was shown by his modification of Aikins's splint for fracture of the upper arm, his wrench for clubfoot, his device for making plaster casts of the living head and neck by a preliminary spray of paraffin, and last, but not least, by his wonderful self-registering electric target for rifle-shooting, which, it is to be hoped, the profession will use their united influence to have very generally adopted as a memorial to the man and a source of revenue to those who were dependent on him.

Although a busy man he nevertheless found time for recreation and amusement, his chief pastimes being golf, riding, driving and hunting. His love of the horse was one of his strongest characteristics, and his mastery of that noble animal complete. No gentler hand or firmer seat could be found in the Toronto Hunt, or, perhaps, elsewhere. He had strong military instincts, and, of course, upon the cavalry side. He entered the Governor-General's Body Guard as a lieutenant and attained his Majority. After the Boer war he was selected to organize a regiment of Mounted Rifles—now "The Toronto Light Horse"—to exploit Boer tactics, and this corps he continued to command up till the present winter.

His literary style was good and pure. He was not a voluminous writer, but he contributed the articles on the "Surgery of

the Rectum and Anus" to the "International Text-book of Surgery," by Gould and Warren, and the article on the "Inflammatory Affections of Bone," to the forthcoming "System of Surgery," by Bryant and Bucke.

His last paper was on the "Choice of Operation in the Surgery of the Gall Bladder," which was read before the Clinical Society a month ago, and was pronounced by those who had the privilege of hearing it a unique production and most luminous presentation of the subject.

He was fond of music and of reading, but the only poetry the writer ever heard him quote was the "Lady of the Lake," and it was natural, therefore, that as his coffin was lowered to the ground to await the parting salute of his comrades-in-arms, for his funeral was a military one, the thought should surge into the mind that the lullaby of Ellen Douglas was his fitting requiem, and Duncraggan's Coronach our appropriate dirge.

The foregoing sketch makes it abundantly apparent how great a loss the community has sustained in Professor Peters' premature demise. But, if the general loss be great, what shall be thought of those who mourn in addition the devoted husband, the fond father, the faithful friend, the sagacious counsellor, the unfailing colleague? To one and all of these the heartfelt sympathy of the profession goes out in unstinted measure. And there should be consolation in the thought that of him who walked among them it may be said in truth that

"His life was gentle and the elements  
So mixed in him that Nature might stand up  
And say to all the world 'This was a man!'"

He rests from his labors and his works do follow him. *R. I. P.*

I. H. C.



THE LATE DR. ORONHYATEKHA.  
*Vide 256.*

ORONHYATEKHA, M.D. (TOR.) AUGUST 10, 1841—  
MARCH 2, 1907.

---

DR. ORONHYATEKHA, former Chief of the Mohawk Indians, Supreme Chief Ranger of the Independent Order of Foresters, died at the Desoto Hotel, Savannah, Georgia, March 2nd, 1907. He had long suffered from an affection of the heart and the fatal termination was not unexpected. Oronhyatekha belonged to the Six Nation Indians in Canada, and was born on their reservation, near Brantford, Ont., Aug. 10, 1841.

His English education was begun at the Industrial School there and continued at the Wesleyan Academy at Wilbraham, Mass. His college education was begun at Kenyon College, Ohio, where he studied for three years. He also studied for a year or so at Oxford, and spent three years studying medicine at the Toronto School of Medicine. He graduated M.D. (Tor.), in 1866. He commenced practice at Frankford, Ont., but afterwards removed to London. It was while living there that he joined the Independent Order of Foresters. He rose rapidly to the position of Chief Executive of the order and at the time of the separation, 1881, he was elected to the office of Supreme Chief Ranger, which he held with much success up to the time of his death.

Oronhyatekha leaves one son, Dr. Acland Oronhyatekha, and a daughter, Mrs. Percy Johnston, of Deseronto. Interment took place at the Mohawk Reserve, near Deseronto, March 8, 1907.

“A rare fellow-man.”—*Sir Hy. W. Acland.*

## News of the Month.

### CHANGES AT GRAVENHURST SANATORIUM.

CHANGES in the medical staff of the Muskoka Cottage Sanatorium, made necessary by the resignation of Dr. J. H. Elliott, Physician-in-charge, are now in the making. Secretary J. S. Robertson announces that Dr. Dobbie, for some time in charge of the hospital at Weston, will assume the post. Dr. Elliott will spend the summer in foreign study and then practice as a consulting physician on tuberculosis in Toronto.

It has been under Dr. Elliott that the original pioneer work in the fight against consumption has been accomplished in Canada, until now the two hospitals on the rock-ribbed shores are as famous as the Muskoka lakes themselves.

Dr. Elliott, the gold medallist of his class, came from Toronto University in 1897, after some months' research work in physiology in the George Brown Memorial Scholarship. The year 1900 the doctor spent in Europe, six months among the sanatoria of Germany and Austria, and six months with the malaria expedition sent under the auspices of the Colonial Office to the Niger delta, West Africa. His associates in this important undertaking were Drs. Dutton and Annett, of Liverpool, the latter having formerly been at Berlin with Dr. Koch, the discoverer of the tuberculosis germ. Dr. Elliott has figured prominently at all the medical congresses of recent years in the United States, but has steadily declined to accept positions of trust as a tuberculosis expert in both university and new sanatoria practice across the line.

Dr. Elliott was born in West Durham thirty-four years ago, receiving his early schooling at Bowmanville. He was the winner of three scholarships at matriculation. Unlike Dr. Trudeau, of Saranac, N.Y., and other well-known friends who are searching for new knowledge, Dr. Elliott is not a "cure" from the white plague.

Dr. W. J. Dobbie, the new physician-in-charge, is well qualified for his new responsibilities. He is a gold medallist of Trinity University, is a graduate also in arts of Toronto University, and for two years has been in charge of the hospital at Weston.

Miss Dickson, head nurse at Weston for some time, has been appointed lady superintendent of the Sanatorium.

### A NIGHT WITH THE STUDENTS.

---

On Wednesday night, February 26th, the class of 1907 in Medicine held their graduating dinner at the St. Charles Hotel. The function was a grand success and enjoyed by a large representation from the faculty and 125 students. The menu card was most elaborate and abounded with witty quotations and clever cartoons. The following quotation was used with reference to freshmen: "Alas, regardless of their doom, the victims play; no sense have they of ills to come nor care beyond to-day." The toasts were especially good. Professor A. B. Macallum referred to Toronto University as the third biggest university in the Empire, and said that it was the most liberally supported. In the next five years, he said, it will receive one million dollars. Dr. Allan Baines responded to the toast to the hospitals. He said that the clinical facilities in Toronto hospitals were excellent. Mr. Hurlburt proposed a toast to the Medical Council, and said a Dominion Council should be formed so that an Ontario physician could practice in any province, without undergoing another provincial examination. Professor Primrose said he considered himself the first friend of every medical student, because his position as secretary gave him opportunity of first becoming acquainted with the boys. Besides the speeches, there were college songs rendered by the students. The toast list was as follows: "King and Empire," W. C. Shier and Dr. Charles Sheard; "Dominion Parliament," J. W. Hun and G. Norman; "Provincial Parliament," Messrs. McVicar and Young; "University of Toronto," Mr. Connor and Professors Cameron and Primrose; "Hospitals," Mr. McNicol and Prof. Allan Baines; "Medical Faculty," Mr. A. Huntsman and Professors Reeve and McPhedran; "Medical Council," Messrs. Brydon and Hurlburt; "Our Guests," G. C. Grey and Prof. A. B. Macallum; "Undergraduates," Messrs. Wright, Mullholland, Charles Johnston, Wilson; "Ladies," Messrs. Racev and J. A. Whillans. Mr. W. C. Shier, B.A., acted as toastmaster.

### IDEAS TO BE OBTAINED FROM AMERICAN INSTITUTIONS FOR THE NEW HOSPITAL.

---

MESSRS. M. J. HANEY, Chairman of the Committee of the new General Hospital; Darling & Pearson, the architects; Prof. A. B. Macallum, a member of the Hospital Board, and Dr. J. N. E. Brown, Superintendent of the Hospital, went recently to New York, Baltimore, Philadelphia and Washington. They were accompanied, on the instructions of the Provincial Secretary, by

Dr. Bruce Smith, the Provincial Inspector of Hospitals and Charities. At the cities named they will visit most of the leading hospitals, and particularly those recently erected, with a view to getting all possible information which would be of assistance in building the new hospital in this city.

The time for commencing the building of the new hospital will not, it is thought, be long delayed. Excellent progress has been made in securing agreements for the expropriation of properties upon the selected site. There are said to be valued at somewhat over \$600,000, and agreements covering property with an aggregate value of \$500,000 are understood to have been reached without a single case having to be referred to arbitration. The site has a frontage on College Street from Elizabeth to University Avenue, and runs some distance south into "the ward."

In addition to its interests by reason of a grant to the project and the connecting link of the Medical College of the University, the Government has another indirect tie with the new hospital project, namely, the decision for the establishment of a Provincial Veterinary College. It is said that if the present scheme, which contemplates the purchase of the Veterinary College on Temperance Street, goes through, a building will not be erected on the University grounds for Veterinary College purposes, as was originally intended, until the new hospital is nearly completed. The reason for this is that several of the courses of veterinary and medical students are alike, and it would be helpful to have the buildings, Veterinary College, Medical College and new hospital, where some special classes will be held in close proximity. In the event of the successful issue of the negotiations for the purchase of the present Veterinary College the existing building would be utilized until the new one is ready.

---

#### AN INTERESTING SUIT FOR MALPRACTICE.

---

DR. GEORGE CLINGAN, who formerly practised on College Street in Toronto, and who is now living in Brandon, Manitoba, was called into court recently by a contractor whom he had attended professionally because of a fracture of his left tibia, which occurred by a fall from the sidewalk. After adjustment of the fracture, Dr. Clingan placed the leg in a circular splint of plaster-of-Paris. During the course of treatment doctors both at Virden and Brandon were called in consultation. Contrary to the advice of his attending surgeon, the contractor, McDougall, began to use the injured limb, and eventually he gave up crutches and all protection for the injured limb without consulting his attendant.

The fracture had occurred January 29th, 1906. About the 1st of December, 1906, McDougall issued a statement of claim against Dr. Clingan for the sum of \$2,000 for malpractice, asserting that the leg was permanently injured and that he had constant pain as a result of the unskilfulness and improper treatment carried out.

About twenty witnesses were called, including all the doctors of Virden, Drs. Chown and Galloway, of Winnipeg, and Dr. McDonald, of Brandon. There was very general agreement among the medical men with the treatment adopted by Dr. Clingan. Three medical men had been summoned by the defence, but were not called, counsel for the defence stating that he would not submit further expert testimony.

Mr. Justice McDonald charged very directly and strongly in favor of the surgeon, saying that he was quite convinced that the defendant exercised proper judgment in using the plaster-of-Paris, and that the precaution given to the plaintiff about too early use of the limb was justifiable, but had not been observed by the plaintiff. The Judge said: "I fail to see a trace of any evidence of neglect or want of skill on the part of the defendant. The evidence impresses me altogether the other way. I think the defendant had used all possible skill and every possible care any reasonable surgeon would. That he is a careful man we can see, and that he is competent we can see from his evidence, and I think he has exercised every possible care in this case." Further, "I have no hesitation in finding that the defendant was not guilty of any neglect or skill; in fact, I believe he was skilful in his treatment, and I dismiss the action with costs and enter a verdict for the defendant on his counter-claim as sued for."

---

#### THE WORK OF A TORONTO PHYSICIAN IN THE CAPITAL OF KOREA.

---

WM. T. ELLIS, writing from Seoul, Korea, to a syndicate of papers, says, in part:

"Here it is noteworthy that the missionaries constitute the dominant Anglo-Saxon community. There are at this capital more missionaries than all other white foreigners combined. Because of their homogeneity, as well as because of their activity and long residence, they are the best known to the Koreans. While there is a small and not very closely-knit consular set, and a business set, as in other capitals, they rank after the missionary set, and, in fact, are in more intimate relations with it than usual.

"A missionary physician is the doctor of the white com-



munity. This is Dr. O. R. Avison, head of the Severance Memorial Hospital, which is spoken of in Seoul as 'the hospital,' though the Methodists also conduct a busy and successful hospital here. There is no lack of work for the medical missionary in Korea. The Severance Hospital, which is the gift of Louis N. Severance, a well-known Presbyterian layman of Cleveland, Ohio, is built and equipped on the lines of a first-class American hospital. Its patients include the best people in Seoul, and Dr. Avison is physician to his Majesty.

"The King recently made a gift of \$1,500 to the hospital, and another of like amount to Dr. Avison himself. The latter has been through dramatic and bloody scenes at the Korean court, but always as a personal friend of the Emperor; he says that he and the Emperor never talk politics. Associated with Dr. Avison, who is a Canadian, is Dr. J. W. Hirst, of Philadelphia, and these, with a trained nurse, Miss E. L. Shields, of Lewisburg, Pa., constitute the responsible heads of the hospital.

"In connection with his hospital duties, Dr. Avison conducts a medical college. He is having translated into Korean, and mimeographed, a complete set of modern medical text-books; and his ambition is to turn out a set of competent native physicians who can, with the literature thus at their command, build up a Korean modern medical profession along up-to-date lines. With such an ambition as this, a man is not to be blamed for working far into the night, as Dr. Avison does."

Dr. Avison is a Torontonionian, and lived in Carlton Street until about eighteen years ago.

---

### THE ONTARIO MEDICAL ASSOCIATION.

---

THE provisional programme for the coming meeting has been issued to the profession of the Province. It should prove of interest to every practitioner. Of special moment will be the address in medicine by Dr. Mazyck P. Ravenel, of the Phipps Institute, Philadelphia, on "The Methods of Infection in Pulmonary Tuberculosis," and the address in surgery by Dr. George W. Crile, Professor of Clinical Surgery, Medical Department, Western Reserve University, Cleveland, dealing with "Clinical and Experimental Observations on the Direct Transfusion of Blood."

The committee also have invited Dr. William Milligan, of Manchester, ex-President of the British Laryngological and Rhinological Association, and Professor Gustave Killian, of Freiburg, Germany, who will be the guests of the American Medical Association a few days later at Atlantic City. Symposia upon

"The Profession in relation to the Public" and on "Fractures" will open discussions of interest, beside which the programme of papers promises many important topics for consideration.

A smoking concert and a dinner are items in the programme under the care of the Committee on Arrangements.

The meeting will be held in the Medical Building, Queen's Park, on the 28th, 29th and 30th of May next.

---

### THE ACADEMY OF MEDICINE, TORONTO.

---

THE organization of the "Academy of Medicine, Toronto," is practically completed, after an agitation extending over a number of years.

The new association will have its headquarters in the building of the Ontario Medical Library Association, in Queen's Park, but plans have been made to raise a sum of money among the members of the profession in Toronto, and an auditorium and stock room will be erected.

The Library Association is the main nucleus, but there will be three other societies amalgamated with it—the Toronto Medical, Clinical and Pathological Societies. These three will go out of existence, and will meet now as sections of the Academy.

An impetus was given to the new association by the convention of the British Medical Association last summer, and also by an address to the different societies by Dr. Wm. Osler in December last. This is the first Academy to be formed in Canada.

The object is thus set forth: "The advancement of the art and science of medicine with its collateral branches, the promotion and maintenance of an efficient library and museum; professional improvement; the cultivation of harmony and good feeling among the Fellows, and the promotion of the corporate influence of the profession in its relation to the community."

The Academy will be managed by a council of twelve. The first one will be composed of the officials of the Library Association and the president and secretary of the other three societies. These will choose their own officers. Succeeding councils will be composed of nineteen members.

Besides the ordinary members, there will be resident and non-resident Fellows.

The Ontario Library Association was formed in 1887, and met in the Medical Council building until two years ago, when it purchased the residence of Mr. Horace Thorn in Queen's Park. This contains fifteen rooms.

The addition that will be built will be used chiefly as a fire-

proof library and an auditorium. Refreshment rooms will also be fitted up, and other club rooms.

The officers of the four societies are:

Ontario Medical Library Association—President, Dr. J. F. W. Ross; Vice-President, Dr. Alex. McPhedran; Secretary, Dr. H. J. Hamilton; Treasurer, Dr. D. J. Gibb Wishart.

Medical Society—President, Dr. Rudolf; Clinical Society, President, Dr. H. B. Anderson; Pathological, Dr. J. A. Amyot.

---

**ITEMS OF INTEREST.**

---

**Doctors' Bill in Quebec.**—Christian Science healers, osteopaths and every person practicing the art of healing, who is not a regular member of the College of Physicians and Surgeons of the Province of Quebec, will in the future be liable to a fine of from \$25 to \$100 for every offence. At least this is the effect of a provision in the next bill affecting the College of Physicians and Surgeons, which has already passed its second reading in the Assembly. It was approved by a special committee to which it had been referred.

**Reed & Carnrick, Jersey City, N.J.,** beg to announce that Dr. W. von Riedl, of the University of Berlin, former assistant in the Laboratories of Professor Koch and Virchow and late first assistant to the department of medicine in the University of Heidelberg, has been appointed Pathological chemist and chief of their Pathological and Bacteriological Laboratories. Dr. W. von Riedl brings the latest thoughts and researches of the German laboratories, so that doubtless the same high standard of this firm's laboratories will be maintained as in the past.

# The Physician's Library.

## BOOK REVIEWS.

*Surgery: Its Principles and Practice.* In five volumes. By sixty-six eminent surgeons. Edited by W. W. KEEN, M.D., LL.D., Hon. F.R.C.S., Eng. and Edin., Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Philadelphia. Vol. I.: Octavo of 983 pages, with 261 text-illustrations and 17 colored plates. Philadelphia and London: W. B. Saunders Company. 1906. Per volume: Cloth, \$7.00 net; half morocco, \$8.00 net. Canadian Agents: J. A. Carveth & Co., Toronto, Ont.

"Keen's Surgery" is a collection of monographs, written by well-known authors on the different subjects which go to make up the "Principles and Practice of Surgery," the whole work being edited by Dr. Keen. The "Narrative of Surgery," an historical sketch, by Dr. Mumford, Boston, of ancient, mediæval and modern princes of surgery, is a very readable essay, and one which adds to the value of the work. In "Surgical Physiology," Dr. Crile, Cleveland, Ohio, deals largely with the instrumental estimation of blood pressure.

The examination of the blood, particularly in relation to hemoglobin values, leukocyte count, iodophilia, time of coagulation, bacteriemia and cryoscopy, is dealt with in the third chapter by Dr. John C. DaCosta jun. Dr. L. Hektoen writes the chapter on "Infection and Immunity." A pregnant sentence in his essay is worth repeating: "It is at present accepted quite generally that the inflammatory reaction, resulting, as it does, in the concentration of leukocytes and of serum about the organisms, serves to protect the body and to promote healing."

Dr. Adami, Professor of Pathology in the medical faculty of McGill University, Montreal, writes the chapter on "Inflammation," which impresses one as a philosophic and well-written article. He devotes a good deal of attention to Bier's method of employing passive congestion to counteract acute disturbances in cases of what are called inadequate reaction. He favors the application of cold in superficial inflammations of a non-infective character; warmth in the treatment of parts infected with pyogenic organisms.

"Suppuration, Abscess and Fistula" are described by Dr.

Freeman, Denver, in an eminently practical way. The same author also treats of ulcers, ulceration and gangrene.

"The Process of Repair" is a chapter which cost its builder, Dr. Wood, New York, an immense amount of research, for its bibliography covers nearly four pages.

Dr. Frazier, Philadelphia, writes an interesting article on "Thrombosis and Embolism." He also describes erysipelas, tetanus, anthrax, glanders, actinomycosis, malignant edema, hydrophobia, bites and stings of insects and bites of serpents.

Dr. Eugene A. Smith, Buffalo, deals very ably with "Traumatic Fevers." The article on "Scurvy," by Dr. Frazier, though this subject is not of great surgical interest, shows careful treatment. The same remark applies to the article on "Rickets," by Dr. Nichols, Boston.

Dr. Chalmers Da Costa, Philadelphia, writes in an authoritative way on "Surgical Tuberculosis." Much in his article is inevitably trite. He approves of the Finsen light, the X-rays, and tuberculin in lupus. He approves of Bier's method in tuberculosis of the joints.

Dr. Edward Martin, Philadelphia, contributes an excellent chapter on "Chancroid and Syphilis."

The chapter on "Tumors," by Mr. Bland-Sutton, occupies fifteen pages. Among the important matters discussed in it are the various theories of the causation of cancer.

A chapter on "Wounds and Contusions," with a discussion on "Shock and Collapse," is written by Dr. Crile, and ends the volume.

Dr. Keen has chosen his workmen with discernment and they have nobly responded to his call. Where all have done well, it is hard to individualize. Although at first unfavorably impressed by the plan of writing a great work in monographs, the result, as far as one can judge by the first volume of "Keen's Surgery," is satisfying. Dr. Keen deserves warm commendation for the success of his enterprise. If it be a case of *ex uno disce omnes*, the subsequent volumes of the set will be looked for with avidity and read with pleasure.

In print, illustration and binding, the work is a finished production.

J. J. C.

*A Treatise on Orthopedic Surgery.* By ROYAL WHITMAN, M.D., Clinical Lecturer and Instructor in Orthopedic Surgery, etc., New York. Third edition. New York: Lea Bros.

The fact that the third edition is so soon called for goes to show not only a cordial appreciation of this work by the profession, but also that the subject dealt with is a rapidly growing one. Although the general practitioner may not be brought face

to face with the fact, yet it is true that nowhere in the field of medical science has greater advance been made in recent years than in orthopedic surgery. In common with all departments of medicine, orthopedic surgery felt the thrill that went through the body medical as the result of the labors of Pasteur, Koch, Virchow and Lister.

The practical beneficence of science in removing the distress, suffering and humiliation of the unfortunate is nowhere shown more plainly than when the unsightly deformity is removed, or the disabled member is restored to its former activity. Perhaps the most distinctive advantages, however, are seen in the means employed to prevent deformity. A closer study has been made of the mechanical principles involved in the action and inter-action of the various parts of the human mechanism, resulting in the employment of simpler and more efficient means to help the patient individually to approximate the physical ideal.

The author gives his readers full advantage of his own large experience in dealing with the many phases of the work as seen in large metropolitan hospitals, and in association with men who are acknowledged leaders in the profession. The methods of treatment recommended do not set forth so much the historical, and perhaps discarded, practice of the past, as the methods which are the logical outcome of modern knowledge.

The work is splendidly illustrated, and the numerous headings and sub-headings in heavy type greatly aid ready reference. The book in all particulars is worthy of commendation, and will not be one of the unused so often found on the shelves of the busy practitioner.

B. E. M.

*Rhythmotherapy.* A Discussion of the Physiologic Basis and Therapeutic Potency of Mechano-Vital Vibration, to which is added a Dictionary of Diseases, with suggestions as to the technic of Vibratory Therapeutics, with illustrations. By SAMUEL S. WALLIAN, A.M., M.D., President American Medico-Pharmaceutical League, ex-President Medical Association of Northern New York, Member New York State and County Medical Societies, Fellow of the American Electro-Therapeutic Association, Member Medico-Legal Society, Associate Editor Medico-Pharmaceutical Journal, etc. Chicago: The Ouellette Press. 1906. Price, \$1.50 : <sup>net</sup> postage, 10 cents.

This handsome volume of over two hundred pages is the most recent, and in many respects the most satisfactory contribution to the literature of the subject yet produced.

The busy practitioner, whether using a vibrator or not, will find many valuable suggestions within its covers, and the entire

subject treated from the logical and physiological aspects without a long prelude, historical mention, or description of vibrators.

A chapter is devoted to a "Digression on Diet," of value to every physician, and the "Dictionary of Diseases" is a very complete statement of the technic of vibratory treatment.

The illustrations are unusually fine and two colored charts are included.

*The Treasure of Heaven.* By MARIE CORELLI. Toronto: William Briggs.

Everything Marie Corelli has written is worth reading. Yet even her warmest admirers of yester year are bound in truth to say that she is now using stories as pegs to hang deep-rooted prejudices upon, and so, while just, she is hardly generous. This little story is simple in construction and fresh with the breath of Old England's roses and its countryside, but sombre with the gravity of the sad, empty heart of a millionaire who ever craves and seeks "The Treasure of Heaven"—Love.

A pleasing photogravure of the authoress adorns the frontispiece of the novel, an unusual condescension upon her part, is it not?  
W. A. Y.

*A Text-book of the Practice of Medicine.* For Students and Practitioners. By HOBART AMORY HARE, M.D., B.Sc., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia, Physician to the Jefferson Medical College Hospital, Laureate of the Royal Academy of Medicine in Belgium and of the Medical Society of London; author of "A Text-book of Practical Therapeutics," "A Text-book of Practical Diagnosis," etc. In one very handsome octavo volume of 1120 pages, with 131 engravings and 11 full-page plates in colors and monochrome. Second edition, revised and enlarged. Cloth, \$5.00 net; leather, \$6.00 net; half morocco, \$6.50 net. Philadelphia and New York: Lea Bros. & Co. 1907.

One of the most uncommon and highly valuable mental faculties is judgment of relative importance, an ability to conceive ideas distinctly enough to measure them, and to picture them in their proper perspective. Such a faculty collects, arranges, sorts, drops what is unimportant, and seizes what is essential. Clear vision is clear thought, which finds its expression in clear language. Such qualities embodied in a book account for keen public appreciation, and this is the explanation of the fact that two very large printings and now a thoroughly revised edition of "Hare's Practice" have been demanded in less than two years. The author has written for medical students of all ages. He knows the needs of the undergraduate and the best mode of presenting

a subject to his mind by reason of the fact that he has been teaching clinical medicine and therapeutics for nearly a quarter of a century, and the same length of active hospital and private practice gives the weight of experience which attracts the physician in need of counsel. Well-proportioned consideration is given to the theory and principles of medicine as underlying, explaining and leading up to the main objective point, namely, the practical application of the knowledge. Accordingly, particular pains have been taken to present methods of treatment clearly, and in such a way that they may be put directly into practice. Such have been the characteristics of the work from its original issue. In this new edition every line has been revised, anything already rendered obsolete by the rapid march of medicine has been eliminated, and all trustworthy advances have been incorporated, so that the volume, as it stands, is representative of its subject to date. Of its authority and resourcefulness, nothing need be said.

*The Practical Medicine Series*, comprising ten volumes of the year's progress in medicine and surgery. Under the general charge of Gustavus P. Head, M.D. Volume X.—“Skin and Venereal Diseases,” “Nervous and Mental Diseases.” Edited by W. L. Baum, M.D., Hugh T. Patrick, M.D., William Healy, A.B., M.D. Chicago: The Year Book Publishers, 40 Dearborn Street.

In this volume the physician has a ready review of the very latest observations of prominent men in the various branches of skin, venereal, nervous and mental diseases. The chapter on “Actinotherapy and Radiotherapy” is especially interesting, as the beneficial effects of treatment are noted, as well as the dangers carefully considered. The authors have selected the important items of the medical literature of the year and present them in such a manner that the busy physician cannot fail to appreciate them.

D. K. S.

*The University Magazine.* The Macmillan Company.

A quarterly magazine, whose aim has been set forth thus: “To express an educated opinion upon questions immediately concerning Canada; to treat freely in a literary way all matters, especially those which have to do with politics, industry, philosophy, science and art.” The subscription price is one dollar a year, single copies twenty-five cents. The number for February contains many well-written, concrete articles, deeply interesting to those studiously inclined; there is nothing in “lighter vein,” so the author in no way caters for cheap popularity. In quantity of matter he has been certainly “generously good.”

W. A. Y.



*Green's Encyclopedia and Dictionary of Medicine and Surgery.*  
Vol. III.—Earth Burial to Gummi Indicum. Edinburgh  
and London: Wm. Green & Sons.

Volume III. has followed Vol. II. in rapid succession and completes, so the publishers tell us, nearly one-third of the whole work. In this section there are 1,097 subject headings and over sixty articles of more than 1,000 words in length. Among these articles are included contributions to the subjects of Epilepsy. Epistaxis, Electrolysis, Enemata, Eczema, Ectopic Gestation, Eclampsia, Filariasis, Glaucoma, Glandular Fever, Gangrene, Gastro-intestinal Disorders of Infancy, Gout, Foot and Mouth Disease, Facial Paralysis, Fallopian Tubes, The Female Organs of Generation and their Arrested Development, and many others. Many of these articles appeared originally in "The Encyclopedia Medica," though the majority of them have been thoroughly revised and brought up-to-date. Volume III. is perhaps the best that has as yet appeared. The cross references are a splendid feature of the work.

W. A. Y.

*The Practical Medicine Series.* Comprising the Year's Progress in Medicine and Surgery. Under the general editorial charge of GUSTAVUS P. HEAD, M.D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Volume VIII.—Materia Medica and Therapeutics, Preventive Medicine, Climatology and Forensic Medicine. Edited by GEORGE F. BUTLER, Ph.G., M.D., HENRY B. FAVILL, A.B., M.D., NORMAN BRIDGE, A.M., M.D., DANIEL R. BROWER, A.M., M.D., LL.D., and HAROLD N. MOYER, M.D. Series 1906. Chicago: The Year Book Publishing Co., 40 Dearborn St.

"The Practical Medicine Series of Year Books" are published in ten volumes, and are designed especially for the general practitioner. Each volume is edited by a specialist in his particular department, who is, because of the division of labor, able to cover the vast amount of literature necessary for the work.

We have found this series of great practical value. Any subject can be looked up quickly, and one finds the year's work on that subject carefully abstracted and in convenient form for reference.

The present volume, No. VIII., contains 358 pages, including the index. 207 pages are devoted to materia medica and therapeutics, 78 to preventive medicine, 36 to climatology, and 37 to forensic medicine and index.

This volume is fully up to the high standard of the series.

The work is sold either in the full series or in single volumes, to suit the individual requirements.

W. J. W.

*Text-Book of Anatomy for Nurses.* By ELIZABETH R. BUNDY, M.D., Member of the Medical Staff of the Woman's Hospital of Philadelphia; Gynecologist, New Jersey Training School, Vineland; late Adjunct Professor of Anatomy and Demonstrator of Anatomy in the Woman's Medical College of Pennsylvania; formerly Superintendent of Connecticut Training School for Nurses, New Haven. With a glossary and 191 illustrations, 34 of which are printed in colors. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1906.

That an accurate knowledge of the anatomy of the human body must form the basis of a nurse's training for her life's work, there is no question. It was no simple task for anyone to attempt to take so large a subject as human anatomy and boil it down into a book of less than 250 pages; but this the author has succeeded in doing fairly well. The book is divided into thirteen chapters, each one dealing with a certain portion of the human structure, and the whole written in a concise and easily comprehended manner, to be easily understood by one who has not to study anatomy in its most minute details. Dr. Bundy's book should find a very ready sale among both students and graduate nurses. Its price is \$1.75.

*A Text-Book of Pharmacology.* Including Therapeutics, Materia Medica, Pharmacy, Prescription-Writing, Toxicology, etc. By TORALD SOLLMANN, M.D., Assistant Professor of Pharmacology and Materia Medica, Western Reserve University Cleveland, Ohio. New (2nd) edition. Octavo of 1070 pages, fully illustrated. Philadelphia and London: W. B. Saunders & Company. 1906. Canadian agents: J. A. Carveth & Co., Toronto. Cloth, \$4.00, net; half morocco, \$5.00 net.

In those days when there is so much agitation about proprietary medicines, with constant changes and additions to the B. P. and U. S. pharmacopeia, a new work on pharmacology is almost of necessity interesting.

Dr. Sollmann now submits to the profession the second edition of his text-book. It consists of over one thousand pages, and, from a mechanical standpoint, would be difficult to criticize. It consists of four parts. Part I. is devoted to "The Preparation and Prescribing of Medicines" and "Toxicology," divided into six chapters. Part II. is subdivided by the author into two sections, the first covering those "drugs with predominant systemic actions," the second "locally acting drugs." Part III. is perhaps the most instructive of all, and is thoroughly up-to-date. It deals with "Laboratory Work in Pharmacology." This is certainly in line with the modern system of university teaching. It takes up (1) chemic exercises, e.g., drugs in urine, chemic antidotes, cor-

rosives on proteids and excised tissues, stains on human skin, etc.; (2) exercises on frog and intact mammals, and (3) operative work on mammals. Part III. alone is worth the price of the book, and makes it eminently valuable as a university text-book.

*Practical Dietetics.* With Reference to Diet in Disease. By ALIDA FRANCES PATTEE, Graduate, Boston Normal School of Household Arts; late Instructor in Dietetics, Bellevue Training School for Nurses, Bellevue Hospital, New York City; Special Lecturer at Bellevue, Mount Sinai, Hahnemann, and the Flower Hospital Training Schools for Nurses, New York City; St. Vincent de Paul Hospital, Brockville, Ont., Canada. 12mo, cloth. 300 pages. Price, \$1.00 net; by mail, \$1.00; C.O.D., \$1.25. New York: A. F. Pattee, publisher, 52 West 39th Street.

Thoroughly practical and comprehensive, about describes Miss Pattee's book on dietetics. It is written *by a nurse for a nurse*, and should be adopted by the different hospital training schools without hesitation. It puts in attractive form the result of up-to-date and scientific nursing.

*Women.* A Treatise on the Normal and Pathological Emotions of Feminine Love. For Physicians and Students of Medicine. By B. T. TALMEY, M.D., Gynecologist to the Metropolitan Hospital, N.Y. The Stanley Press Co., Publishers. 1906

A statement that the sexual instinct in women is subject to many variations and alterations, and that these are but imperfectly understood by a large proportion of physicians, may be accepted without argument. Unfortunately a large proportion of the literature bearing on this subject is pornographic in type and panders to unlaudable or prurient curiosity. As examples we may refer to the writings of Havelock Ellis and of Krafft-Ebing.

Most of us have had at times to feel the need of a work dealing in a broad, scientific and clean-minded manner with the great sex problems of a woman's life, and affording the basis upon which really helpful advice might be given.

The small volume before us appears to be the result of an honest attempt to supply just this want. If its use can be confined to those for whom it is written it will do good, while if read by others it is likely to be less harmful than books upon the sexual instinct usually are. The subjects here taken up are treated with candor and with dignity, and we are spared disgusting details regarding the sexual life of deviates and degenerates.

*Stöhr's Histology.* Edited by DR. F. T. LEWIS. Sixth American edition. Philadelphia: P. Blakiston, Son & Co.

A new American edition of this well-known text-book requires very few words from the reviewer. Its reputation is so well established and its use so general in schools on this continent that one may say that its reputation is established. Its position in Germany is well shown by the fact that this American edition is from the twelfth German.

It is perhaps hardly fair to the work to leave the impression that it is simply a new edition.

Professor Lewis has rearranged the matter upon an embryological basis, has added a certain amount of embryological histology and has, as a result, produced a book of distinctly new character.

*The Journal of Inebriety*, after thirty years of continuous studies of the disease of inebriety and drug-taking begins its new decade by entering upon comparatively new field of physiological and psychological therapeutics, for the treatment of these neuroses. Arrangements have been completed by which *The Archives of Physiological Therapy* has been consolidated and will hereafter be published as a part of *The Journal of Inebriety*. This very able monthly has been developing parallel lines of study with *The Journal of Inebriety*. In the opinion of its managers its scientific value would be greatly enlarged by concentrating its work along some special lines. The disease of inebriety and its allied neuroses is a field of most practical interest, hence *The Journal of Inebriety* is selected as a medium for continuing the work of *The Archives of Physiological Therapy*. Henceforth, in addition to the various phases of this subject which *The Journal* has presented, the therapeutic effects of hot air, radiant light baths, electricity, massage, psycho-therapeutic measures and other physiological means will occupy a prominent space. This effort to clear away the confusion and broaden the studies of therapeutic means for cure will make *The Journal of Inebriety* one of the most practical and valuable visitors to every hospital and institution, as well as to all specialists who treat brain and nerve neurotics. We shall aim to present and formulate the latest studies and facts along these frontier lines, and in this way lift the whole field of therapeutics out of its present imperic stage into one of rational therapeutics.