

## Technical and Bibliographic Notes / Notes techniques et bibliographiques

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

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

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

Continuous pagination.

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

# THE CANADA MEDICAL RECORD.

VOL. VIII.

MONTREAL, NOVEMBER, 1879

No. 2.

## CONTENTS.

### ORIGINAL COMMUNICATIONS.

**PAGE.**  
Cases in Practice, by Casey A. Wood, C.M., M.D., M.C.P.S.O., 29—On the Treatment of some Febrile Diseases by the External Application of Cold, by T. K. Holmes, M.D., Chatham, O. 31

### PROGRESS OF MEDICAL SCIENCE

Illumination of the Cavities of the Body by a New Instrument—Nitsche, 36—A Means of Lowering the Gen-

**PAGE.**  
eral Temperature, 37—Lactopeptine, 37—Treatment in Night-Sweating of Phthisis, 37—Agaricum in the Night-Sweats of Consumptive Patients, 40—The Use of Iron in certain stages of Cardiac Disease, and the advantage of combining Chloride of Ammonium with Iron, 41—Treatment of Infantile Diarrhoea, 43—The Uses of the Hot-Water Douche in Parturition, 45—Advances in Pharmacy, 46—Incon-

**PAGE.**  
tinence and Retention of Urine in Children .....48

### EDITORIAL.

New Kymograph, 49—Mr. Hughes' Pamphlet, 49—Trommer Extract of Malt, 50—The New Library Hall of the New York Academy of Medicine, 50—Medical Item, 50—Reviews, 50—Obituary, 54—Personal, 55—Medico-Chirurgical Society, 55—The Oldest Lecturer in Europe, 56—Birth, ...56

## *Original Communications.*

### CASES IN PRACTICE.

BY CASEY A. WOOD, C.M., M.D., M.C.P.S.O.

ATTENDING PHYSICIAN TO THE WOMEN'S HOSPITAL, PROFESSOR OF CHEMISTRY MEDICAL FACULTY OF BISHOP'S UNIVERSITY.

On the third of August last I was sent for in great haste to assist a midwife in a case of confinement. On my arrival at the house I was informed that the patient had begun to lose blood at the very beginning of the labor, and that the hemorrhage had continued until the time of my coming. Having satisfied myself that the amount of blood lost was not as yet very considerable I made a digital examination and found the edge of the placenta extending almost to the os, which was soft, distensible and dilated to the size of a half-dollar. The presentation was that of the head in the first position; the pelvis was roomy, and everything pointed to a favorable termination of the labor. The pains had not been very strong, so I gave 3ss of fluid extract of ergot, punctured the membranes, and, as I expected, the head settled down closer to the os, the pains increased in regularity and severity, and the bleeding soon lessened and finally ceased.

The woman, I ascertained, was forty years of age, had had a large family of children (about eighteen months having intervened between the birth of the last two) and her health for the previous four months had not been good. She

seemed to be of medium size, fairly well-nourished, and there was nothing special about her appearance to lead me to suspect the existence of any serious disease.

Her pulse was about 110 and rather weak, and I noticed then what I did not until afterwards pay much attention to, viz: the beats were ill-defined and inclined to be irregular. At the time I attributed this condition of the pulse to the excitement she was laboring under, consequent upon my being called in. The labor progressed rather quickly; the child was born; the placenta came away; the uterus contracted nicely, and I do not think that, during the last stage, a more than usual amount of blood was lost. Moreover the patient shortly afterward expressed herself as feeling quite comfortable, though rather weak. I remained for a while, and was about to take my leave when the midwife requested me to remain a little longer, because, after the woman's previous confinement, which she had attended, the patient had "gone off in a faint," from which there had been some trouble in resuscitating her.

Thinking it well to take precautions against a possible repetition of this fainting, and particularly since a more than usual quantity of blood had been lost by the patient, I lowered her head, had hot water bottles placed between her lower extremities and at the soles of her feet. The room was well ventilated and kept perfectly quiet. As a matter of further precaution a tumbler of hot brandy and ginger tea was prepared, a bottle of ammonia sent for, and every-

thing was done that would be of use in such an emergency.

The weak and rather fast pulse did not improve as it should have done. Its frequency did not diminish, nor was there any change in its tone, and shortly I noticed the woman's face become pale; she said she felt "strange" and thought she was going to faint. She soon after lost consciousness, and I was horrified to find her pulse get weaker and more irregular, her respiration become sighing, and her lips and face blanched. Every means was tried, without avail, to rouse her from the syncopic state into which she had fallen, but, in spite of all that could be done, she was dead within an hour after the birth of her child. There was no struggle, no convulsion. It was simply "the blowing out of a candle."

I have not been able to satisfy myself as to the actual cause of death, and I regret that a *post-mortem* was not allowed.

It could not be simple syncope from external loss of blood for, in my opinion, there had not been sufficient hemorrhage to bring about that result; nor do I think the fatal result is to be explained by internal uterine bleeding.

It may have been that the woman had been suffering for some time previous from some chronic disease of the heart, bringing about a gradual thinning of its walls, or causing some degenerative change in its structure, whereby the resulting disposition to fatal syncope was rendered actual when there was much loss of blood—a loss which, under ordinary circumstances, would not have been serious. And on enquiring into the previous history of the patient I did find some slight confirmation of this last idea. As to the physical signs it was not possible for one to make a satisfactory examination of the heart when the necessity for it first arose.

A short time ago I was consulted by A. B., æt. 42, an American of spare habit, for a gonorrhœa which he had contracted. As he was subject to dyspepsia I felt some hesitation about giving him copaiba, as I did not wish to derange his stomach. However, after treating him for some time, and finding that the discharge did not diminish to his satisfaction nor to my own, I prescribed, in a mixture, 20 drops of bals. copaibæ, to be taken 3 times a day,

warning him, at the same time, that he must discontinue the remedy the moment he noticed any dyspeptic symptoms, and that I must see him as soon as he finished the first bottle. I did not see him again until ten days afterwards, when I was sent for to attend him at his place of residence. On my arrival he told me that the first bottle "had done him a world of good," and that he had got a second bottle which, for the preceding four or five days, he had been taking in double doses, with the view of getting rid of his trouble still more quickly. The night before I saw him he had been seized with violent headache which lasted during the night, and did not diminish until ten o'clock in the morning.

He had also had some vomiting, was still suffering from nausea and anorexia. His tongue was coated, the temperature 101.5°, pulse 106, and there was a roseolous rash on his face, hands and chest, which was attended with tingling and itching. His bowels had moved several times during the day; the motions on each occasion being accompanied by pain, and there was slight strangury. I prescribed 20 grains of chloral and an equal amount of bromide of potassium in a draught, which gave him some sleep. At 5.30 p.m. the cephalalgia returned with increased intensity, and I was obliged to administer a hypodermic injection of morphia to relieve the pain. During the night the patient was several times delirious, and the headache was only controlled by a mixture of liq. morphiæ and spts. chloroform; the chloral mixture being of no use whatever. Next morning there was a lull in the pain, but at 5.30 p.m. a second exacerbation set in; the headache became intense; the delirium was frequent, and the fever ran high. I was struck with the periodical character of the headache and fever, and learning that he had had intermittent fever in the West a few years ago, I thought it advisable to order the patient 20 grains of quinine, to be divided into four powders, and one taken every hour until the headache was relieved. The good effect of this remedy was apparent after the first dose, and by the time the third powder had been taken the severe pain in head left, the fever fell, and the patient slept during the remainder of the night. The next day another powder was given at 4 p.m., and still another at 5 p.m., and there was no

return of the headache. In a few days he was out of bed. The strangury, nausea, and diarrhoea gradually disappeared, but the rash persisted for a long time. This was undoubtedly a case of poisoning by copaiba, and the state of the patient's digestive organs probably hastened the toxic effect of the drug. Whether intermittent headache, fever, etc., are ever features of copaiba poisoning or not I have been unable to discover: if it were so, I imagine it would be difficult, in this instance, to place a proper value upon the fact of the patient's having had ague. It would not be an easy matter to say positively whether the periodic symptoms were due entirely to the copaiba, or whether they could be referred to the previous attack of malarial poisoning.

On the 28th of July, I paid my last visit to S. R., aged 19, convalescent from a six weeks' attack of typhoid fever. His sister and two brothers had attended to him during his illness, and they were more or less tired out from constant watching. On the evening of the 6th of August I was sent for to see the younger brother, aged 12, and I found him in bed with a flushed face, pulse 100, temperature  $101\frac{1}{2}^{\circ}$ , and a very wearied look about his eyes. He complained of nausea and pain in his abdomen, which was somewhat tender on deep pressure. He was very thirsty, and his tongue was dry and brown. The most noticeable thing about the case was his stools. He had had diarrhoea for three days, and the dejections had become greenish and very offensive. That night (the fourth of his illness) he was slightly delirious.

I believed I had a second case of typhoid in the house, and treated it as such. Fortunately, however, I told the parents of the child that I should have to wait a few days before making a positive diagnosis. At all events there could be no doubt about the enteric nature of the fever, for the stools continued to be liquid and offensive; the abdomen became distended and hard; there was an increase of the fever and delirium at night; the tongue got browner, and the patient was getting very much worse. The pains in the abdomen, which were rather constant at first, assumed a colicky character, adding much to the distress of the patient, and there was occasional vomiting and retching.

What the disease would ultimately have been

called, and how it would have ended, are questions not easy to answer, but it so happened that an unforeseen circumstance threw light on the diagnosis and assisted to a prognosis. On the afternoon of the 5th day of the child's illness his sister, while assisting him to use the bed pan, heard something drop with a sharp metallic "click" into the vessel. The boy at once exclaimed, "Oh! I guess that's it."

An examination of the stool proved "it" to be a small model, in copper, of a cricket bat, of the size that is sometimes attached to watch chains. It presented a worn appearance, and in several places there were distinct marks of erosion.

On being questioned the boy confessed that he had accidentally swallowed the copper model, and for some reason or other had been afraid to say anything about it. The patient recovered rapidly, and in a week was running round as if nothing had happened.

#### ON THE TREATMENT OF SOME FEBRILE DISEASES BY THE EXTERNAL APPLICATION OF COLD.

BY T. K. HOLMES, M.D., CHATHAM, ONT.

Read before the Canada Medical Association in London, Sept. 11, 1879.

GENTLEMEN,—I intend in this paper to present for your consideration some observations on the therapeutic uses of cold applied externally. The subject commends itself to me on account of the great efficiency of this agent in properly selected cases, and also on account of the neglect it has suffered at the hands of the profession generally.

There is reason for believing that beyond sponging the bodies of fever patients with cold water for a few minutes night and morning, its employment is seldom resorted to by medical men in general practice. While sponging the skin for ten minutes with cold water may cleanse it, and so render a patient more comfortable, it will not reduce the temperature when much above the normal one half of one degree Fahr. It is as an antipyretic that cold applications will be considered in this paper; it is therefore desirable to inquire into some of the phenomena of the febrile state. No question in experimental science presents greater difficulties than that of the causes of fever and

their mode of action in producing it. By the light already shed on this subject it is justifiable to believe that essential fevers result in most cases from the introduction of a poison into the system, and that its presence initiates that complexus of morbid phenomena known as essential fever. As heat is only a mode of motion, all abnormal elevation of temperature in the animal organism must be the result of excessive motion therein, and is only an index of morbid processes taking place in disturbed cystogeny and retrograde metamorphosis.

An eminent English writer, whose name I forget, believes the heat of fever to be the result of intensely rapid cell generation; but as the elevation of protoplasm to more complex matter is a synthetical process, heat would be used and not produced in accomplishing it. It may be, however, that cells thus rapidly formed, being ephemeral in their nature, undergo equally rapid disintegration, and are decomposed into substances much simpler in chemical composition than the protoplasm from which they were formed, and that the excess of heat so produced over the amount used in the cell formation accounts for the increased heat observed in the pyrexial state. If to heat so produced be added that resulting from rapid retrograde metamorphosis of tissue previously formed, a plausible explanation of the rise in temperature is reached. In whatever way produced, the abnormal temperature becomes the chief factor in a chain of morbid action always injurious and often dangerous.

I have here the heart of a turtle recently removed from the body. It will be observed that when heat is applied by holding the plate over a lamp the pulsations become more frequent, and that placing it on a piece of ice causes the heart to beat more slowly. Placing it again over the lamp the pulsations immediately increase in frequency, and again changing it to the ice the pulsations fall as before. This phenomenon was first observed by Dr. Brunton, and suggested to my mind the propriety of instituting a series of observations on the action of cold applied to the surface of the human body during febrile action.

The result of these observations has convinced me that in the external application of cold we possess an agent that merits far more attention from the profession than it receives.

Although we cannot apply heat and cold directly to the human heart, as has been witnessed in the experiment just made, we can deprive the blood in the superficial capillaries of its heat, and send it back in a cooler stream to the laboring and exhausted heart, and so produce a similar effect to that produced by cold upon the heart of the turtle. The nerves of the heart are not alone susceptible to the influence of heat and cold, but every organ under the control of the great sympathetic responds to the influence of these agents. Nor is this all: it will be shown in this paper that they are also capable of producing by reflex action through the cerebro-spinal system the most marked effects upon the organs normally under volitional control.

The sequence of morbid processes in fever seems to me to be as follows: 1st. The generation within the body of the introduction from without of a poison; 2nd. Excessive molecular motion in tissue undergoing disintegration as a result of the presence of such poison. 3rd. The transmission of the resulting heat to nervous centres by the sympathetic filaments to their ganglia, by afferent nerves to the centres of the cerebro-spinal system, and to both by the blood. 4th. Reconversion of heat into motion, as seen in increased functional activity of the heart, lungs, skin and some other organs, and in some cases in the violent explosions of force as manifested in convulsions of the voluntary muscles.

It will be found on examination that the successful treatment of fever has for its object the arrest of one or all of these diseased actions. We attempt to eliminate the poison that has initiated the train of morbid action, or, failing to do so, we try to arrest the undue metamorphosis of tissue by diminishing the oxygen-carrying power of the blood. We try to allay reflex action in the nervous tissue, or we endeavor to convey from the body the excess of heat generated.

If we succeed in eliminating the poison, or in neutralizing it, the patient is cured, and our aim accomplished, but from the nature of the poison we are often unable, in the present state of medical knowledge, to do either, and so excessive molecular motion goes on, heat continues to be generated in too great amount, and we have no alternative but to interpose obstacles to the passage of oxygen to the tissues.

in which the morbid process is being carried on, and at the same time to aid in the removal of heat as fast as it is generated. The former we accomplish by the administration of various antipyretics, as quinine, veratrum viride, aconite, digitalis, etc., while the latter is best accomplished by abstracting heat from the body by the external application of cold. Heat generally produces such violent action in the circulatory organs as to rapidly exhaust them, and render them incapable of bearing further depression by therapeutic agents, so that many drugs acting as most of those just named are inadmissible. Their action, moreover, is often too slow to render them availing in the preservation of life.

It is under these circumstances that the rapid abstraction of heat becomes of paramount importance in affording relief or in saving life. We know that a temperature of 107° F., or higher, is incompatible with life if continued for even a comparatively short time, whatever the disease may be, and we know of no internal remedy that will reduce it to the health standard as quickly, safely and certainly as cold applied externally.

If a well-developed child, weighing thirty pounds, and having a temperature of 106° F., be placed in a bath of water at 50° F., there will be no perceptible fall in the axillary temperature for three minutes; the mercury will then begin to fall very slowly, and in about fifteen minutes will stand at 98½°, falling much more rapidly the last three degrees. The rapidity with which the temperature falls is not the same in every case, and cannot be prognosticated; it is well, therefore, to always keep a clinical thermometer in the axilla, and remove the patient from the water when the mercury has fallen to 99½°, as there will be a further fall after removal from the bath.

The temperature may be reduced with almost equal facility by sponging the whole body with whiskey or brandy, and fanning the wet skin at the same time to promote evaporation. This method, indeed, is often preferable, as cold water is apt to alarm young patients and is unpleasant. At first it is better to have the bath tepid, and rapidly cool it by the addition of cold water or ice until our object is attained. This precaution is unnecessary when from any

cause the patient is insensible, which is generally the case in infantile convulsions.

The most notable changes that accompany the fall in temperature are those pertaining to the nervous and circulatory systems. The pulse becomes less frequent, slower and softer, nervous excitability is allayed, muscular spasm ceases, sleep is often induced while the patient is still in the water, and is almost certain to supervene on removal from it.

In some cases, the temperature having been thus reduced, there is no subsequent rise, the case progressing to rapid recovery; but in many diseases it is necessary to repeat the bath at such intervals as will be indicated by the rise in temperature.

By keeping the patient in a cool, well-ventilated room, and resorting to the use of the sponge bath and the use of a fan, the repetition of the cold bath will only be required at long intervals, and may not be required at all. Experience has led me to the conclusion that children are more intolerant of increased temperature than adults, and that it is in febrile diseases of the former we can accomplish most by the use of cold externally.

The febrile diseases in which I have found this treatment to be most useful are diarrhoea, dysentery, scarlet fever, acute bronchitis and convulsions complicating febrile action. I have also treated acute pleurisy, pneumonia and cerebro-spinal meningitis in this way, but not a sufficient number of cases on which to base any conclusions. I may say, however, that the cases of pleurisy seemed to be benefited, but the cases of pneumonia and cerebro-spinal meningitis terminated fatally, although not, I believe, on account of the cold water treatment.

A large number of children die every summer from acute diarrhoea. The attack usually comes on suddenly, the stools are frequent, the stomach sick and the temperature high. If seen a few hours from the beginning of the disease the child will be found restless and pained, the stools offensive and unnatural in color, the features pinched and full, the eyes sunken, and often the feet and hands cold. The patient moans and moves the tongue about the mouth in a peculiar manner, and often makes efforts to vomit when no food or drink has been taken. If the case be allowed to go on, the pupils become contracted, the breathing labored,

the extremities colder and bluish in color, the pulse frequent and feeble, the fontanelles depressed, and the child rolls its head from side to side on the pillow. If the axillary temperature of that child be tested, it will almost certainly be found to be between 103° and 106° F., notwithstanding the coldness of the extremities. Such cases must have relief promptly or they will all die. The indications are to rid the bowels of offensive accumulations, to arrest the vomiting, to preserve the strength and to reduce the temperature. Purgatives will seldom remain on the stomach, nourishment and stimulants are rejected in the same manner; it is generally useless to administer anti-emetics, and even if we could wait for the action of drugs that reduce the temperature, they would as a rule be inadmissible on account of their depressing influence on the circulation. If a child in this condition be placed in a cold bath for from five to twenty minutes, according to the heat of its body and the coldness of the water, the temperature will fall to the normal standard, the heart will beat with more force, the thirst will be less intense, the circulation will become equalized, sleep will generally be procured, and the stomach will retain nourishment and medicine. If after a few hours the temperature rise again, the bath can be repeated, but, by allowing the child to lie naked and be sponged and fanned, its repetition may not be necessary, for if, in the meantime, a purgative dose of rhubarb or castor oil be given, the tendency to a rise of temperature will not be so great.

I have frequently seen children, that had tossed and moaned for hours, fall into a quiet sound sleep in the water in a few minutes, and continue to sleep well after being taken out.

As an illustration I have transcribed from my case book the following typical cases.

CASE I. July 27th, 1878.—J. Ellson, æt. 5 months, strong and well nourished, has had diarrhœa for forty-eight hours, and the mother thinks fever also. Looks distressed, temperature 105° F., pulse 130, evacuations greenish and offensive, and about twelve a day. Ordered rhubarb and soda bic. aa gr. iv. every two hours.

28th, 10 o'clock a.m.—The child has not rested, but cries and tosses about incessantly. The extremities cold, and temperature 105° F. No pulse at wrist, breathing labored, fonta-

nelles depressed, eyes sunken, features pinched and bluish, and it refuses to nurse.

Put it into water from the well until axillary temperature fell to 99½°, when the child fell asleep. Soon after its removal from the water the pulse returned at the wrist, and the body and extremities became of about uniform warmth.

At 1.20 p.m. the temperature had risen to 104°, and the child was again restless. Repeated bath with same result as first.

29th.—Rested well all night, and has nursed several times. Temperature 99½°. Parents had used sponge bath and fan frequently through the night. Stools greenish. Ordered a dose of castor oil and chloral enough to make it rest.

30th.—Passed a comfortable night, and nurses well; has been sponged several times during last twelve hours; temperature 99½°. After this an occasional dose of rhubarb and soda was the only medicine given, and the child soon recovered entirely.

CASE II. July 12th, 1876, 10 o'clock a.m.—Caspar Schweinler, a robust child five months old, has had diarrhœa for three days, but not very ill until yesterday, since when it has neither nursed nor slept, but has constantly uttered half suppressed cries. It is pale, hands and feet cool and skin dry. Gave a purgative dose of rhubarb and calomel.

3 o'clock p.m.—Bowels well moved by the medicine, the last evacuation being natural in color. Extremities cold, pulse imperceptible, pupils contracted, face leaden hue, and thirst intense.

The axillary temperature to my surprise was 105°, for I had been deceived by the coldness of the extremities and the general appearance of the patient, and did not expect to find temperature so high.

Gave half a drachm of brandy and put it into a tepid bath, and rapidly cooled it by the addition of cold water. In ten minutes the temperature fell to 102°, and sleep came on for the first time in thirty hours.

When the mercury fell to 100° I removed the child from the water, and it slept most of the afternoon, and was not thirsty. As the temperature fell, the pulse became better and the pupils larger.

8 o'clock p.m.—Temperature 103°, child sleeps well, and looks comfortable. Bath re-

peated, and temperature reduced to  $99^{\circ}$  in five minutes.

13th, 10 o'clock a.m.—Rested well all night and nurses, temperature  $103^{\circ}$ . Ordered a dose of castor oil.

11 o'clock a.m.—Child has had two convulsions within last few minutes, is insensible, and temperature  $105\frac{1}{2}^{\circ}$ . Repeated the bath, and reduced temperature to  $98\frac{1}{2}^{\circ}$ . After this the temperature never rose above  $101^{\circ}$ , the bath was not resorted to again, and in a few days the child was well.

CASE III. Bronchitis. Jan. 5th, 1879.—N. Clarke, *æt.* 14 months, ill five days with what the parents thought an ordinary cold.

I saw it on the fifth day of its illness, and found it with well-marked acute bronchitis, temperature  $105^{\circ}$ , pulse 140. Abundant râles over both lungs.

For the next five days the treatment consisted of hot fomentations to the thorax with occasional applications of turpentine to keep up slight counter-irritation and the administration of quinine with small quantities of Dover's powder. An aperient was given when required, and the child was allowed to nurse.

The symptoms underwent but little change until the 10th, when great restlessness came on. The breathing was very rapid, and there was constant moaning and rolling of the head. Extremities cold, pupils small, tongue dry, pulse too frequent to count, and temperature  $106^{\circ}$ .

Fearing the child would die unless relieved promptly, I felt justified in trying the effect of cold externally, which I did by removing hot fomentations, sponging the body with brandy and fanning it vigorously. At the end of half an hour the temperature had fallen to  $99^{\circ}$  and the patient was sound asleep, pulse slower and fuller, breathing easy and extremities warmer. I then instructed the attendants in the use of the thermometer, with the request to keep the axillary temperature as nearly  $100^{\circ}$  as possible by the means just used.

11th.—Instructions have been observed, and child has rested well and has not been very thirsty. Temperature  $100^{\circ}$ , respiration 35, pulse 130. Thinking the disease had passed the climax, and that convalescence would go on, I advised the mother to put on the child a thin night dress and to omit the applications of the brandy.

12th.—The parents informed me that in four hours from the time the sponging was stopped the child became restless and seemed worse in every respect, and that the temperature rose to  $104^{\circ}$ , when they again resorted to the cold sponging with same beneficial result as before. For the next three days it was necessary to continue the cold applications several times daily, after which time the fever disappeared, and the child made a good recovery.

In my own experience eighty per cent. of all cases of convulsions in children occur during fever, and I believe are nearly always caused by the elevation of temperature alone. The ordinary treatment of such cases is unsatisfactory: chloroform, first recommended by Sir James Simpson, will control the spasms, but in many cases these occur in such rapid succession that no intermission can be perceived; they continue whenever the anæsthetic is stopped, and our only recourse is to continue its administration until the fever yields to medicine or subsides spontaneously. I have followed out this plan of treatment in many cases, often successfully, and frequently not so.

I have notes of four fatal cases in which the inhalation of chloroform was continued from six to thirty hours. The administration of medicine in these cases is always difficult, sometimes impossible, and is generally attempted with risk to the already weakened heart. This is true of bromide of potassium, chloral, veratrum, aconite, &c., while quinine acts too slowly to be depended upon in any severe case; warm or hot baths are sometimes useful when, by inducing perspiration, they reduce the temperature, but every medical man knows that they often fail to arrest the convulsions.

The cold bath fails so seldom that it may be considered a specific. The spasms will frequently continue until the temperature has been reduced to  $98\frac{1}{2}^{\circ}$ , but at this point they are almost invariably arrested. Several years' experience with this plan of treatment has inspired me with the strongest confidence in its usefulness, and yet a desire not to have its value over-estimated compels me to admit that there are cases in which convulsions will return or continue notwithstanding the reduction of temperature, but such cases are rare, and probably are complicated by organic lesions, as tubercular meningitis.

The following cases will illustrate the com-



parative value of the cold water treatment of convulsions complicating fever:

CASE IV. July 3rd, 1876.—M. A., æt. 2 years, strong and well-developed, was taken suddenly ill last evening with dysentery and fever, which lasted all night, and at seven this morning there was a convulsion. At 8 o'clock I saw him, temperature 103°, restless. Ordered a large dose of castor oil, and one-third of a drop of the fluid extract of aconite every hour while fever lasted. Another convulsion occurred at ten a.m., and another at half-past ten, when I began the administration of chloroform. At noon the oil had operated well. At 2 p.m. the convulsions recurred, and continued for two hours with no intermission, although the patient was partially under the influence of chloroform during the time. At 4 p.m. they were as violent as possible, temperature 105°, pulse 150, breathing noisy and labored, a light frothy foam was constantly discharging from the mouth and nostrils, and death seemed inevitable. I now put child into bath at 50°, and added ice and ice water. In ten minutes the breathing became easier, in fifteen minutes the temperature was 102°, and in twenty minutes 99° and the pulse 110. All spasm had ceased, and the child was replaced in bed. It slept soundly for half an hour, and awoke with no bad symptoms. There was no return of fever, and no further treatment was required.

CASE V. Feb. 5th, 1871.—L. Lamont, æt. 6 years, was first ill this morning with chill followed by fever (malarious).

At one p.m. convulsions came on, and continued without intermission, when she died.

The treatment consisted of warm baths, castor oil, injection to move bowels, bromide of potassium and hydrate of chloral. The temperature the whole afternoon was 104.9. Chloroform was administered part of the time.

CASE VI. Sept. 26th, 1872.—P. T., a strong boy, 8 years old, was well until noon to-day when chill came on followed by fever and convulsions, which still continued when I arrived, at one o'clock p.m. The attendants had just removed him from a warm bath. It was impossible to get him to swallow anything. Applied cold to the head, gave an enema, and put him under chloroform, which controlled the spasms, but they always returned when it was omitted.

The enema acted well, the chloroform was continued, the temperature remained at 106°, the pulse became gradually weaker and more frequent, and after three hours he died.

CASE VII. Oct. 28th, 1876.—C. Gore, æt. one year, was never ill till last evening, when fever came on and lasted all night. At 7 o'clock this morning convulsions began, and lasted without intermission until half-past eleven a.m., when I saw the child, and found him convulsed and senseless, with a temperature of 104°. Used cold bath, and in ten minutes temperature fell 99°, the spasms ceased, and consciousness returned. The child remained well until the following Thursday (4 days), when it again had fever, and convulsions began as before. The parents, having witnessed the beneficial effects of the former treatment, put the child into a cold bath, and in a few minutes he was well and remained so afterwards.

In carrying out this plan of treatment care is required to protect the bulb of the thermometer from contact with the water, by keeping the arm pressed firmly to the side.

The application of cold should not be continued after the temperature has been reduced to 99½°, as there will be a further fall after it has been stopped.

---

## *Progress of Medical Science.*

---

### ILLUMINATION OF THE CAVITIES OF THE BODY BY A NEW INSTRUMENT—NITSCHKE.

Translated from the German by A. Osterday, M.D.

Not a little sensation is at present excited in surgical circles by the invention of new illuminating apparatus, by which the surgeon is enabled to illuminate all cavities of the body accessible from the outside, as the bladder, rectum, stomach, etc., and inspect in such a manner that he may obtain a precise view of the internal condition of the illuminated cavities. Repeated experiments made by Prof. Dittel, in the presence of eminent surgeons, on living subjects, have proved the extraordinary merits of the invention. Hitherto this apparatus has been used for illumination of bladder, urethra and rectum, and has proved itself most excellent. One may see in the illuminated bladder the smallest piece of gravel, the smallest injected vessel. The operator has not to depend on his manipulations and his sense of touch; if he seeks for stone in the bladder, or treats any other vesical disorder, he will simply inspect and then be sure what the matter is. Suffice it to say that the stomach-illuminating apparatus will soon

have reached completion; its success seems to be assured. The inventor, a Saxon physician, Dr. Nitsche, has been working now for three years in perfecting his idea, and there seems to be no more doubt that he will be perfectly successful. The principle on which these new instruments are constructed differs from the old endoscopes in this, that the light is not thrown by a reflector from the outside into these cavities, but the light source itself is introduced by the instrument into these cavities, to the very spot intended to be inspected. The light source consists of thin platina wire, made and kept white hot by galvanism. To prevent the instrument from growing warm by the glowing wire, a constant circulation of cold water around the wire is kept up. The arrangement of the water circulation and wire is different, according to the anatomical differences of the several organs, but always so that a perfect and equal cooling of the instrument is produced. In this manner we are enabled to illuminate the different cavities with a degree of intensity that has never been reached before. By use of a special optical apparatus, we are further enabled to considerably enlarge the field of inspection, *i. e.*, it is then possible, through long and narrow tubes, to survey with one glance a large area, as by the use of this apparatus a six to nine centimeter ( $2\frac{1}{2}$  to  $3\frac{1}{2}$  inch) area of the walls of the bladder may be surveyed with the greatest distinctness without moving the instrument.—*Wiener Med. Woche No. 18, May, 1879.*

#### A MEANS OF LOWERING THE GENERAL TEMPERATURE.

Mr. Spencer Wells, in his lecture on the diagnosis and treatment of abdominal tumors, states that as a means of lowering temperature in cases when it has risen after ovariectomy, he has tried aconite in small doses, quinine in large doses, salicylic acid in the form of salicylate of soda, in fact, almost every medicine that has been suggested as effecting this purpose, but all these trials have ended in disappointment. He has, however, succeeded distinctly in lowering temperature and in keeping it low by the application of ice or iced water to the head. The first trials were made after a suggestion of Dr. Richardson, by putting an ice-bag round the neck. Dr. Richardson believed that by icing blood that went through the carotids to the brain, and blood that came back through the jugulars, we should directly lower the temperature of the brain itself; and probably it may have been done experimentally, but in practice it was not found easy to do. It was difficult to keep any kind of cravat or collar that was tried, filled with ice, round the neck of the patient; it slipped off; and the old India-rubber bag or ice helmet, so well-known in lunatic asylums, had to be resorted to. After a time Mr. Thornton combined a particular form of cap which answers the purpose extremely well. A pail of water with a large lump of ice in it is placed

above the bed of the patient, and the stream of iced water runs through the cap, which is formed of a coil of India-rubber tubing lined with linen. That is placed upon the patient's head, and it is made of different sizes and shapes to fit the patient; the other extremity of the tube is put into a second pail at the side of the bed, and by this means the head is iced. The effect in lowering temperature is very marked, the thermometer in almost all instances indicating a fall of temperature within an hour. If the temperature be rising it is checked, and if very high it can be lowered, and so time is gained for the recovery of the patient.

#### LACTOPEPTINE.

We have given Lactopeptine a full and fair trial, both in private practice and in the hospital department of an asylum which is under our medical care. As a digestive it comes nearer the gastric juice (particularly when combined with a little extra hydrochloric acid) than anything we have ever used. Dyspeptics are generally greatly benefited by its use. In vomiting in pregnancy it has relieved three-fourths of the cases in which we have tried it; and in cholera infantum (chronic) it has been of inestimable service in our hands.—*The Southern Clinic, Richmond, Va., November, 1878.*

#### TREATMENT IN NIGHT-SWEATING OF PHTHISIS.

William Murrell, M.D., M.R.C.P., Lecturer on Practical Physiology at the Westminster Hospital, Assistant Physician to the Royal Hospital for Diseases of the Chest, in London  
*Practitioner:*

Sweating occurs in phthisis from two causes—weakness and fall of temperature. When the sweating is due to weakness it may occur at any time, day or night, and is excited by apparently trivial causes. The sweating from fever usually occurs at about three or four in the morning, when the temperature is lowest. These two varieties of sweating may and often do co-exist. The greater the weakness of the patient and the greater the diurnal range of temperature the more profuse the sweating. By checking the sweating the strength of the patient is economized, by preventing, as Dr. Fothergill suggests, the loss of the large quantities of salts which escape with the sweat.

*I. Oxide of Zinc in Night-sweat.*—Probably no remedy has been more extensively employed in the treatment of the night-sweating of phthisis than oxide of zinc. The estimation in which it is held will be gathered from the following extract from Williams' work on Consumption: "The medicine we have found to act almost as a specific on night-sweats is the oxide of zinc in doses of two or three grains in the form of a pill at night. This we have given ourselves and seen others give to thou-

sands of patients, and the good results have generally been so prompt and lasting that in few cases has it been necessary to continue it for any lengthened period."

Oxide of zinc has been so long in use that the origin of the treatment is almost lost in obscurity. It appears that as far back as 1837 Dr. Busse, of Berlin, recorded the case of a gentleman who, after taking a scruple of the oxide daily for some months for epilepsy, became cold and shriveled, and his skin like parchment; but this observation attracted but little attention. Some years later the property of drying the skin was noticed by the late Dr. Robert Dickson, of the Hospital for Consumption at Brompton, in some patients to whom he administered it as a general tonic and for diarrhoea, and this led him to give it with a view of checking nocturnal perspirations. Mr. Verue Edwards, the well-known resident officer at the Brompton Hospital, gave the new remedy an extensive trial in some patients under the care of Dr. John Hutchinson, of spirometer fame, who had temporary charge of the wards. The treatment was then adopted by the late Dr. Theophilus Thompson, who, in a lecture delivered in the spring of 1851, says, "No remedy which I have as yet employed has exercised so uniformly favorable an effect in moderating the perspirations." But he adds, "The preparations of zinc occasionally fail to accomplish the object, and in some instances after succeeding for a time lose their power." Many papers have since been published confirming these facts, but they have thrown no additional light on the subject.

The oxide of zinc is usually given at bed-time in from five to ten-grain doses made up into pill with extract of henbane or conium. The hyoscyamus is said to prevent sickness, and probably exercises an influence allied to that of its more powerful congener, belladonna. The oxide is sometimes given in powder, but in this form is not unlikely to upset the stomach. It must be admitted that even in large doses it not unfrequently fails; some writers say in nearly a third of the cases. I have used it very frequently, but have no notes available for statistical purposes. It is said to check other forms of pathological sweating, as in intermittent fever and acute rheumatism, for example. Sulphate of zinc in two-grain doses will often check the sweating of phthisis, but it has no advantage over the oxide, and is seldom used for this purpose. How the zinc salts act in these cases is not well understood, and our knowledge may be summed up in the vague statement that they are "astringents."

II. *Atropia in Night-sweat.* — Dr. Milner Fothergill, in an interesting article recently published in the *Practitioner*, says: "The most potent of all anhydrotics in my experience is unquestionably belladonna. We are indebted

to Dr. Sidney Ringer for our knowledge of this property of belladonna, and the debt we owe him can only be sufficiently estimated by those who have an extensive experience of phthisis, and who give the drug a fair trial. I have no hesitation in saying that the use of this agent completely changes the aspect of many cases of pulmonary phthisis. For the arrest of the exhausting night-perspirations of phthisis belladonna is as potent as digitalis is in giving tone to a feeble heart." Dr. Ringer was led to try the influence of belladonna on sweating from the remarkable power it exhibits of checking the secretion of milk when applied to the breast. Soon after the publication of his papers I made, at his suggestion, some observations with the view of testing the value of hypodermic injections of small quantities of atropia in checking the sweating of phthisis. The drug employed was the sulphate, the dose from  $\frac{1}{20}$  to  $\frac{1}{10}$  grain. The conclusions were arrived at as the result of experiments made on sixty patients, who were seen at least twice a day, morning and evening.

Age, sex, and temperament in no way influenced the results obtained; the injections were successful in men and women, in young and old.

The presence or absence of fever did not influence the result. In nearly all the cases there was some elevation of temperature; in some it was but little above the normal, while in others it ranged from 102° to 103° F., or even higher.

The beneficial effects of the treatment are not confined to any particular stage of the disease.

The presence or absence of debility does not affect the result; in some cases the patients were in bed, suffering from great prostration, while in others they were well enough to be out of doors the greater part of the day.

The fact of the perspiration having or not having commenced at the time of the injection is of no importance. In a case in which the patient was perspiring very profusely over the whole body an injection was given; in five minutes the perspiration was very much less, and at the end of half an hour his skin was quite dry.

The benefit derived from the injection lasts in most cases for several nights, so that it need not be repeated every day. An injection once a week or once in ten days will often suffice to keep the perspiration in check.

In many cases the effect of the drug is delayed, no benefit being experienced on the first night; but on the second and succeeding nights the sweating is completely checked. The beneficial effects of the drug, when lasting several nights, appear to pass off gradually, the perspiration coming on earlier and earlier every night. Thus it was noticed that  $\frac{1}{10}$  grain given

at bed-time would often produce no effect that night; on the next night, no further injection being given, the perspiration would be completely stopped; on the third night the patient would be free from perspiration till five or six in the morning; on the fourth night it would begin at two or three in the morning; while on the fifth and subsequent nights it would be as bad as ever.

It is not essential to give the injection at bed-time; in fact, in some cases when the action of the drug is required on any particular night, the earlier in the day it is given the more likely it is to prove successful. Sometimes too when the drug is given at bed-time partial relief is obtained on that night, while on the second and subsequent nights the full effects of the drug are experienced.

The injection of atropia has been used with success where oxide of zinc, gallic acid, and other drugs have been tried in vain. The  $\frac{1}{100}$  grain will often succeed where  $\frac{2}{100}$  grain has failed. One injection may completely stop the perspiration; and although the patient remains under observation for some weeks, there is no complaint of its return. These cases are not common, but it not unfrequently happens that after a few injections the perspiration, although not completely stopped, is checked to such an extent as to render further treatment unnecessary. An injection of atropia will often relieve cough when in excess of the amount of expectoration, and thus enable the patient to obtain a good night's rest; but it is not only in this way the perspiration is checked, for night-sweats are benefited when there is not much cough and the patient sleeps well. Patients rarely complain of any unpleasant symptom even when the larger dose is given. Dryness of the throat is a condition so common in sufferers from phthisis that any increase in this symptom, unless very marked, will pass almost unnoticed.

The number of cases in which marked and permanent benefit is not derived even from these small doses does not amount to more than eight or ten per cent. The observations having been made for experimental purposes, the drug was given hypodermically; but in practice it would be found more convenient to give it by mouth in a proportionately larger dose. It may be given in pill, or in solution, or in granules. It is stated by Dr. Aquilla Smith that a solution of sulphate of atropia in camphor-water (made with distilled water) will not spoil by long keeping. As to the dose, Dr. Fothergill usually commences with  $\frac{1}{75}$  grain by mouth, and increases it to  $\frac{1}{3}$  grain. Speaking from a large experience of the drug, he finds that it may be freely used without apprehension as to any serious toxic effects appearing. "Even with  $\frac{1}{2}$  grain of atropine the patients," he says, "do not complain much; some dry-

ness of the throat and a little indistinctness of vision being all; while all prefer these to their dreaded sweats. These effects wear off in a day or two after the drug is discontinued or even the dose reduced. I have not yet seen any alarming symptoms produced. This I attribute to the gradual increase of the dose; and I have but little doubt that if  $\frac{1}{2}$  grain were given at first many cases would show marked toxic symptoms." Dr. J. M. Williamson mentions a case in which the eightieth of a grain given by mouth produced severe symptoms of poisoning. M. Valpian employs granules each containing half a milligram (about  $\frac{1}{100}$  grain).

Atropia will stop other forms of sweating, such as the sweating of acute rheumatism, prolonged suppuration, convalescence, etc. Atropia and belladonna check sweating by a peripheric action on the sweat-glands, but it is not unlikely that they have also a direct central action.

III. *Gallic Acid in Night-sweat.*—Gallic acid is a useful remedy for night-sweating. It is especially indicated where the patient also suffers from slight but frequently recurring hemoptysis or from diarrhea. It is best given in a ten or fifteen-grain dose either at bed-time or three times a day. It is often made into pills with extract of hyoscyamus, the henbane in all probability exerting its own specific influence.

IV. *Quinine in Night-sweat.*—Quinine is another useful remedy. It proves of most avail when there is a considerable rise of temperature at some period of the day. It is frequently given in two-grain doses, but five grains are much more likely to succeed. A large dose (eight or ten grains) administered at once or in portions repeated hourly is a good form. A night-draught composed of quinine, sulphate of zinc, and sulphuric acid is also useful (Ringer). It has been suggested that quinine checks profuse perspiration by depressing the vaso-motor dilating nerves, and so contracting the blood-vessels. This explanation is probably incorrect.

V. *Iron in Night-sweat.*—The different preparations of iron have long been used in the treatment of pathological sweating. Sir Thomas Watson says: "I have frequently succeeded in checking the wasting sweats of phthisis by the tincture of perchloride of iron, given in doses of twenty minims thrice a day, after other expedients had failed me. Steel-wine, the ammonio-citrate of iron, the syrup of its iodide, are all good and eligible forms." Reduced iron made up into five-grain pills often succeeds admirably. In a case recently under observation it stopped the sweating after Dover's powder and oxide of zinc had failed. The patient—a young man—had softening at both apices, and had suffered from profuse night-sweats for six or seven weeks. He took

Dover's powder nightly for five weeks, the dose being gradually increased from one to fifteen grains without any improvement. During the next three weeks he took ten grains of oxide of zinc every night at bed-time, with very little benefit. He was then ordered two five-grain reduced iron pills nightly, and in a week the sweating had almost ceased. The great disadvantages of iron is that in many cases it is not well borne. Too often it increases the cough, occasions headache and heat of skin, and distresses instead of relieving the patient.

VI. *Nitrite of Amyl in Night-sweat.*—I have recently made, at Dr. Ringer's suggestion, some observations on the influence of nitrite of amyl on the night-sweating of phthisis. The patients were seventeen in number, all adults—thirteen men and four women. All stages of the disease were represented; in some cases there was considerable elevation of temperature, while in others the lung mischief was latent. The majority of the patients were seen daily for some weeks, and some were under observation for three months. The medicine was given internally at bed-time, the dose varying from a half to three minims. For convenience of dispensing, a one-in-ten solution in rectified spirit was usually employed, but in some cases the amyl was given in suspension in water or on sugar.

In three out of the seventeen cases no benefit was experienced from the treatment. These patients were all men. One had suffered from profuse perspiration all his life, not only at night, but also in the day-time, and he was covered with moisture on the slightest exertion even in the dead of winter. The amyl was given nightly in minim doses for a fortnight without checking the perspiration in the slightest degree. He had previously been treated unsuccessfully with oxide of zinc, hypodermic injections of atropia, and other drugs. On one occasion he was freely rubbed all over with belladonna liniment till his pupils were fully dilated, but the sweating continued as before. The second was a case of advanced phthisis, in which the amyl was given nightly for a fortnight in doses varying from one to three minims, without benefit; oxide of zinc subsequently failed. In the third unsuccessful case the patient had hemiplegia and tertiary syphilis, in addition to his lung mischief. The amyl was taken in drop-doses for eight nights, and seemed rather to increase than to diminish the amount of perspiration; in this case too oxide of zinc was given without benefit.

In the remaining fourteen cases the treatment was successful. The most striking case was that of a young man who had suffered severely from night-sweating for six weeks. A single dose of the amyl stopped them at once and completely for a fortnight. The perspirations then returned, and a single dose again kept

them in check for a fortnight. For a third time this was tried, and with like result. It may have been a mere coincidence, but it certainly appeared to be the result of the treatment. In the majority of cases the treatment was less successful. Usually on the first night little or no benefit was experienced; on the next night the perspiration was less; and it gradually decreased in severity night by night till at the expiration of a fortnight it had nearly if not wholly ceased, and the patient was able to discontinue the medicine. At the expiration of about a week the perspiration would return, and it would be necessary to give the medicine again. One of these patients had renal disease in addition to the lung mischief, and another had frequent hemoptysis. The others were simple cases of phthisis. Most of them were able to take outdoor exercise, but two or three were confined to bed.

Nitrite of amyl is a good remedy for night-sweats, but for promptness of action is decidedly inferior to atropia and other remedies.

VII. *Local Applications for Night-sweat.*—Dr. Druitt finds that in the night-sweats of phthisis sponging with hot water gives relief, especially if the perspiration begin, as it often does, on one special part of the body by preference, as the chest, hands, or feet. By hot water is meant water as hot as can be borne without pain. It may be used by sponging or immersing, and must be continued till the parts treated are hot, red, and tingling with heat—almost scalded in fact. A good wipe with water at 130° is easily borne; for immersion the heat must be less; but the feelings are the only guide. Dr. Druitt also recommends this mode of treatment when there is a general tendency to perspire to a distressing degree in hot weather, the patient being in good health; and also when there is a tendency to distressing perspiration of some particular part, as the axillæ, hands, feet, etc.

Dr. Robinson Hill recommends sponging the chest with salt solution at bed-time. He finds that in many cases it arrests the night-sweats most completely and satisfactorily.

Sponging the chest and limbs at bed-time with aromatic vinegar and water is also useful, but has its disadvantages. Dr. Elliotson speaks well of a mixture of sulphuric acid and water—a drachm to the pint—as a wash.

The application of belladonna is useful for local sweatings, but when the sweating is general the internal administration of atropia is to be preferred.

#### AGARICUM IN THE NIGHT-SWEATS OF CONSUMPTIVE PATIENTS.

Professor Peter says, in his lectures on the treatment of tuberculosis (*Bull. Gén. de Thérap.*, March 30, 1879), that agaricum is one of the most efficient

drugs for curing the debilitating night-sweats of tuberculosis. The drug is not new; it was first mentioned by De Haen, and Andral experimented with it in the Hôpital de la Pitié. He proved that it has the power of preventing the sweating, and that it may be given in doses of two grammes without provoking any digestive trouble; a dose of three grammes induced an attack of diarrhœa. He used to give it in doses of 20 centigrammes. Trousseau ordered the same dose to be taken two hours before bedtime, and always found it answer very well, except in cases of very great cachexia, where the sweating was much reduced, though not entirely suppressed. Peter gives it in doses of from 20 to 30 centigrammes with good effect. He illustrates its power by several cases in which it has proved efficient, of which we here quote the case of a young man who suffered from consumption, and had very profuse night-sweats. After entering the Pitié, these sweats continued during the daytime also, and the patient was much reduced by them. Twenty centigrammes of agaricus were given him, and the night-sweats disappeared. The treatment was continued, and, six weeks later, the patient had regained flesh, felt much better, and left the hospital.—*London Med. Record*, July 15, 1879.

#### THE USE OF IRON IN CERTAIN STAGES OF CARDIAC DISEASE, AND THE ADVANTAGE OF COMBINING CHLORIDE OF AMMONIUM WITH IRON.

In a very interesting and instructive paper (*Practitioner*, August, 1879) Dr. T. Grainger Stewart, Prof. of Practice of Physic in the University of Edinburgh, draws attention to two points. First, that in certain cardiac cases, particularly those in which the aortic valves are diseased, a peculiar condition sometimes arises which demands for its treatment large doses of iron. Second, that in some cases, both belonging to the above group and of other kinds, the reception of iron by the system is greatly facilitated if chloride of ammonium be administered along with it.

In illustration of both points he cites the following case:—

Neil McLeod, a seaman, 33 years of age, was admitted to the Royal Infirmary on the 23d October, 1877, complaining of breathlessness on exertion, giddiness, palpitation and pain in the region of the heart. In 1867 he had suffered from rheumatic fever, but was not aware that any cardiac complication had then existed. In 1875 he observed that his strength was failing, that he became breathless on exertion, was apt to cough, and often had passing fits of giddiness. These symptoms rapidly increased, and he soon felt himself unfit for duty.

At different times he was under treatment in the infirmary at Calcutta, and in Greenwich Hospital, and although he made each time a temporary rally, he soon fell back, and on the whole the debility, breathlessness, and pain were gradually increasing.

The exacerbation of illness which led him to seek

admission to the infirmary had been induced partly by hard work while employed in a coasting vessel scarcely seaworthy, and partly by intemperance.

On admission his face was pale, his expression anxious, his eyes were somewhat staring, his lips slightly livid. His temperature was normal, and beyond flabbiness of tongue and some feebleness of digestion, there was no disease of the alimentary system. The liver dulness was increased, measuring seven inches in the mammillary line, and the organ was tender on pressure. There was some bulging in the præcordial region. The apex beat of the heart was felt strong and diffused, the area of dulness of the heart was increased. On auscultation in the mitral area, a loud, harsh, systolic bruit was heard, propagated towards the axilla and inferior angle of the scapula. There was also a slight diastolic murmur. In the tricuspid area there was a short systolic murmur and a prolonged diastolic. In the aortic area the first sound was weak and impure, there was also a loud high-pitched diastolic murmur propagated down the sternum to the ensiform cartilage. In the pulmonary area the second sound was accentuated. The pulse was forty-six per minute, weak and compressible, and even in this condition presented something of the water-hammer character, although much less distinctly than it did at a later period in the history of the case. There was no dropsy, and the urine was natural.

There could be little doubt that the valvular lesions had originated in connection with the rheumatic fever, and it was clear that these lesions were incompetence of the aortic and mitral valves, with impairment of the muscular power of the heart. All the other symptoms, the general poverty of blood, the cerebral anæmia, giddiness, and general distress, were secondary to these. The indications for treatment were to obtain rest, to support the strength, and in particular to strengthen the heart and improve the condition of the blood. If these indications could be met, it seemed likely that the symptoms due to anæmia and deficient nutrition of the brain would disappear, and that on their disappearance the patient would be comparatively well. With the view of meeting the first indication, the patient was directed to remain in bed; the second, food rich in nitrogen, and in quantities small at a time but frequently repeated, was ordered; and the third, perchloride of iron in full doses was prescribed. At first twenty minims of the tincture were given three times a day, but the doses were gradually given more frequently until he was taking five or six in the twenty-four hours. It was at once apparent that these measures were doing good. The pallor became less marked, the giddiness and headache less troublesome. But some functional derangement of the stomach and liver set in, the tongue became furred, the appetite impaired, the liver somewhat more enlarged from increased congestion, and the headache became again more severe; the patient's condition thus continued to be manifestly perilous. In these circumstances, instead of abandoning perchloride of

iron, I added to it chloride of ammonium in doses of half a grain to each minim of the tincture. This was followed by the best results, for the gastric and hepatic symptoms rapidly disappeared, and for a considerable time the patient went on taking the mixture six times a day, so that he used two drachms of the tincture of perchloride of iron daily, without exhibiting the slightest sign of gastric or hepatic disturbance.

As a result of this treatment, to quote the words of Mr. Henry Handford, M.B., the clinical clerk, "a gradual but marked improvement in his general condition took place. His face lost its anxious expression, the palpitations became less distressing, the action of the heart less tumultuous, although still not quite regular. The pulse became much stronger and more frequent—seventy in the minute—and more characteristic of aortic regurgitation. The aortic diastolic murmur became less loud, but nevertheless was quite distinct. The mitral symptoms remained unaltered. The congestion of the liver was not so great, as shown by a decrease in the vertical dullness. The transverse dullness of the heart was unaltered." It may be added that the pallor and the signs of cerebral anæmia became less marked, and the patient left the infirmary in a condition which enabled him to resume his occupation.

This case afforded an example of a condition by no means uncommon, but of which Dr. Stewart has been unable to find a satisfactory description in books. The first glance at the patient leads one to notice the pallor, the very anxious expression, the restlessness, the pale lividity of the lips, the throbbing of the carotids, and perhaps of the temporal arteries; whilst the patient complains of giddiness, perhaps of headache, certainly of breathlessness, and of a debility that amounts at times to faintness. He is somewhat relieved by food, and unless there is some dropsical effusion to prevent it, he is easier in the recumbent position. But he obtains very little sleep. The explanation of his various symptoms is readily found. The pallor and the head symptoms are due in part to anæmic deterioration of the blood and partly to imperfect filling of the arteries supplying the face and brain. The throbbing is due to the ill-filled condition of the arteries, contrasting with their sudden temporary filling during the ventricular systole; while the breathlessness and the lividity are connected with the dilatation and the partial failure of the heart's action. Sometimes the distress is aggravated by the existence of dropsical effusion, and it seems to be specially severe when the pericardium is its seat. Such cases sometimes prove rapidly fatal by sudden syncope, and sometimes death follows upon a long agony, characterized mainly by symptoms of cerebral anæmia. These cases do not seem ever to recover spontaneously.

Treatment by the administration of cardiac tonics, and especially of iron, leads in many cases to decided improvement. The form which Dr. Stewart finds best is the tincture of perchloride, but it must be given in large quantity. He has gradually been led to give it in larger doses; sometimes even to the

amount of twenty minims every two hours, more frequently every four hours, continuing its use for days together. In many cases the patients speedily experience relief, and before long there is manifest improvement. As in the patient whose history is given, they are enabled after a time to leave the hospital and return to work.

But there is great difficulty in carrying out this plan of treatment from the gastric and hepatic derangement which so frequently follows upon the use of iron. During the past two years Dr. Stewart has sought to meet this difficulty by combining chloride of ammonium with the iron, according to the suggestion of a medical officer of the Indian service, to the members of which we are so much indebted for our knowledge of the value of that salt in hepatic affections. During that time he has repeatedly been thus enabled to administer iron in large doses in combination with chloride, to patients who otherwise could scarcely have used iron. It will be observed that in the case now recorded, the iron speedily led to dyspeptic symptoms, so that it was impossible to persevere with its use. But the addition of the chloride both relieved the existing dyspepsia and enabled us to continue to administer the iron in large doses, and for a considerable time. So far as he can judge, iron is the only remedy which could have saved the life of the patient at the time, and but for this effect of the chloride of ammonium, he does not know how he could have administered iron so freely as to suffice.

But the combination of perchloride of iron and chloride of ammonium is useful not in cardiac cases only.

Dr. Stewart narrates two cases, of which notes have been given him by his friend, Dr. James Ritchie.

A lady, aged 62, suffering from carcinoma uteri, had frequent attacks of metrorrhagia which had produced profound anæmia. The tincture of perchloride of iron was prescribed, but it produced so much gastric irritation that it had to be discontinued. After the stomach had recovered she was again ordered tincture of perchloride, with the addition of ten grains of the chloride of ammonium to every twenty minims of the tincture. This mixture was well received by the stomach, and was continued for some weeks without the slightest disturbance of digestion.

Again, a boy of 13, of feeble and rather strumous constitution, suffered from sore throat, gastro-intestinal disturbance, headache, giddiness, and almost daily epistaxis. The liver was enlarged so as to extend down nearly to the umbilicus, was tender, and had an uneven surface. The spleen also was enlarged, and projected three inches beyond the costal cartilages. Microscopic examination of the blood showed marked increase of the white corpuscles, with great diminution of the red, and an unusual amount of granular material. In this case it seemed highly probable that the iron alone could not be received, and accordingly the combination of iron and chloride was administered. The medicines

were well borne, and speedy improvement of the general condition took place.

#### TREATMENT OF INFANTILE DIARRHŒA.

At a late meeting of the Medical Society of the County of New York (*Med. Record*, July 26, 1879) Dr. A. Jacobi read an instructive paper on the above subject, from which the following extract is made.

The preventive treatment of diarrhœa, depending on defective alimentation, consisted in so changing and arranging the milk used for babies that the casein would not coagulate in large lumps, and thus become more digestible. That object could be obtained by adding such farinaceous food as did not contain much starch. It consists in diluting the boiled and skimmed milk with barley-water or oatmeal gruel. It must be boiled to check its tendency to become sour, to remove a portion, though small, of its casein and fat, and to expel the gas contained in the raw milk to the amount of three per cent.

Of the two, he preferred barley for general use. He recommended that the barleycorn which was employed for infant diet should be ground as thoroughly as possible in a coffee-mill, both in order to diminish the period necessary for cooking it, and also in order to retain the gluten. *It was even preferable, for very young infants, to cook the barley whole for hours, thereby to burst the outer layers of cells, empty their contents, and then, by straining, to get rid of the larger part of the starch which was found toward the centre.* There was no danger to which little children were so liable as that which arose from their tendency to diarrhœa. His advice, therefore, was to administer barley to children who manifested a tendency to diarrhœa and oatmeal to those having a tendency to constipation, and whenever a change occurred in the intestinal functions, to give one or the other, according as constipation or diarrhœa predominated.

He held that mixture to be the *conditio sine qua non* of the thorough digestion of the milk. It only would insure the proper nourishment of the infant. With that food alone he had seen children endure the heat of summer without any attack of illness whatever. He had occasion again and again to be convinced of the reliability of the mixture. It had the advantage, too, that it necessitated no dependence upon the honesty or competence of the apothecary or manufacturer, but could be prepared by any one, however poorly situated. Should a slight diarrhœa occur, or a little casein be vomited (a rare accident, to be sure), or casein occur in the stools, then all that was necessary was to diminish the proportion of milk. It might sometimes be necessary, though very seldom, to withdraw

the milk entirely for a time, but only in cases of real illness. If the physician or attendants had properly apportioned the ingredients of the mixture, we might be rather sure that the child's digestion and assimilation would be regular and normal. Infants that were partly nourished at the breast almost invariably thrived well with the addition of this mixture. Children, from their fourth or fifth month and upward, might often be fed with it exclusively, and not unfrequently nothing else was given from the day of the birth.

The addition of barley or oatmeal for the purpose of rendering milk digestible was not, however, absolutely indispensable, though he had learned to prefer them, for gum arabic and gelatine were also very valuable ingredients, indeed, of infant foods. Dr. Jacobi then dwelt at some length upon the changes which gum arabic and gelatine undergo when put into the stomach.

*Curative Treatment.*—The amount of food should not be larger than we had reason to expect could be easily digested. At all events, either lengthen the intervals between the meals or reduce the quantity of food given at one time, or both. When diarrhœa made its appearance in infants who had been weaned, it was desirable to return them to the breast. Those who never had breast-milk might be given the breast if they could be induced to take it, but only rarely would that be found possible. Whenever a child at the breast be taken with diarrhœa, the passages from the bowels should be studied as to their contents. If a certain amount of curd was found in them, the least that was to be done was to mix the breast-milk with barley-water. That might be done in such a manner that, each time before nursing, one or two teaspoonfuls of barley-water was given the child, so that the farinaceous food and the breast-milk mixed in the stomach. Or, it might be found advisable to alternate breast-milk and barley-water. In bad cases, particularly when the milk was found to be white and heavy, and contained a great deal of casein, it would be found necessary to deprive the child *altogether* of its usual food. In such cases, the child would do better on barley-water alone (that to be continued for one or two days), than to expose it to the injury which would certainly follow the continuation of the casein food.

When diarrhœa occurred in children who had been fed alone upon cow's milk, unmixed or mixed, it was necessary to reduce the quantity of cow's milk in the mixture. As a rule, we had to remember that cow's milk alone was apt to produce diarrhœa, and it should be considered as a maxim that, whenever diarrhœa made its appearance, the amount of cow's milk given to the child should be reduced. When a mere reduction of the quantity did not suffice, it was very much better to deprive the child of milk



food altogether. Not infrequently the removal of milk from the bill of fare was the only thing which would restore the child to health. It was possible that a mixture, such as recommended by Dr. Rudish, already mentioned, would be found digestible, even in such cases. In many cases, as a dietetic measure, it would be found advisable to add one or two tablespoonfuls of lime-water to each bottle of food with which the child was supplied.

In those cases in which barley-water did not seem to suffice as a nutriment, or where it would be dangerous to allow children to lose strength, a mixture which he had used to great advantage was the following: Mix the white of one egg with four or six ounces of barley-water, and add a small quantity of table salt and sugar, just sufficient to make the mixture palatable. The child could take this either in large or small quantities, according to the case.

In those cases in which the stomach was irritable, and vomiting had occurred, it was now and then better to give a small quantity, even one or two teaspoonfuls, and repeat the dose every ten, fifteen, or twenty minutes, than to give larger quantities at longer intervals.

In those cases in which the strength of the child has suffered greatly, he recommended the addition of brandy to the mixture in such quantity that the child would take from one drachm to one ounce (grms. 4.0 to 30.0), more or less, in the course of twenty-four hours.

In those extreme cases in which the intestinal catarrh was complicated with gastric catarrh, where the passages were numerous and copious, and vomiting constant, where both medicines and food were rejected, there was frequently but one way to save the patients, and that was to deprive them *absolutely* of everything in the form of either drink or food or medicine. It was true that such babies would suffer greatly from thirst for an hour or two, but it was a fact that, after two or three hours, those children would look better than before the abstemious treatment was commenced. Not infrequently four or five hours of total abstinence would suffice to quiet the stomach and diminish both the secretion and the peristaltic movement of the intestinal tract. In some cases *six* or *eight* hours of complete abstinence would be required; or such children might be starved for even *twelve* or *sixteen* hours, with final good results. The first meals afterward must be quite small, and they would be retained, and, as a rule, such children would subsequently do well.

Dr. Jacobi here enforced the necessity of supplying the patient with as much cool fresh air as possible. The worst out-door air was better than close in-door air. If possible, the children should be sent immediately to the country and into the mountain air.

The second indication consisted in the removal

of undigested masses retained in the intestinal tract. Not only in cases in which the diarrhoea had resulted from previous errors in diet of the child, but also in those cases dependent upon sudden changes of temperature and exposure, it was desirable to empty the intestinal tract. For that purpose castor oil, calcined magnesia, or calomel might be used.

*Third.* Nothing should be given that contained salts in any sort of concentration. Thus, beef-tea should be avoided. It must be remembered that that form of meat-extract contained a very large amount of salts, and that the direct effect of those upon the intestinal canal might be productive of very unpleasant consequences. If the people insisted upon giving it, and there was no special contraindication to its use in a given case, it should be administered only in connection with some well-cooked farinaceous vehicle, and the best of all for that purpose was barley-water; or it might be mixed with beaten white of egg, but no more chloride of sodium should be added. For the main danger in beef-tea was the concentrated form in which its salts were given.

*Fourth.* Everything should be avoided that increased peristaltic motion. Thus, carbonic acid and ice internally.

*Fifth.* Avoid whatever threatened to increase the amount of acid in the stomach and intestinal tract. There was so much much acid in the normal, and still more in the abnormal stomach and intestinal tract, that it was absolutely necessary to *neutralize* it. For that purpose it was safer to resort to preparations of calcium than of sodium or magnesium. So far as lime-water was concerned, its administration, certainly, was correct chemically. But we should not place too much reliance upon that popular remedy. We should not forget that it contained about one part of lime to eight hundred of water, and that it was necessary to swallow at least *two* ounces of the fluid in order to obtain a single grain of lime.

A further indication was, *the necessity of destroying ferments.* For that purpose most metallic preparations would do fair service. One which had been extensively used was *calomel*, and now in *small doses* frequently repeated— $\frac{1}{10}$ ,  $\frac{1}{2}$ , or  $\frac{1}{3}$  a grain every *two* or *three* hours. As to its effect as an antifermentative, there could be no doubt.

*Nitrate of silver*, when given for the same purpose, should be *largely diluted*. From  $\frac{1}{40}$  to  $\frac{1}{16}$  of a grain dissolved in a teaspoonful or tablespoonful of water, might be given every *two* or *three* hours, and not infrequently with fair result. That was especially important with regard to injections of nitrate of silver into the rectum, where it was apt to do as much harm as good. Whenever it was to be given in that way, the solution should be mild and largely diluted, or the anus and its neighbourhood should be

washed with salt water before the injection was administered.

*Bismuth* acted very favourably. Moderate cases of diarrhoea would usually show its effect very soon. Doses of from  $\frac{1}{2}$  to 2 or 3 grains, given every two or three hours, would act very favourably indeed. In those cases in which the diarrhoea had lasted for a long time, the doses of bismuth should be large in order to be certain of immediate contact of the drug with the sore surface.

A final indication was the depression of the hyperæsthesia of the general system and of the intestinal tract in particular. There had been authors who condemned the use of opium altogether, which, certainly, was incorrect. The doses should be small, and they might be repeated frequently. Administered in that manner, opium could be used with perfect safety both internally and in an enema. One of the rules for giving opium was that the child should not be waked up for the purpose of taking the medicine. Whenever there was fear of collapse, it was safer to give  $\frac{1}{200}$  of a grain every half hour or hour, than to administer  $\frac{1}{50}$  of a grain every two hours.

*Alcohol*.—Small and frequent doses would certainly stimulate the nervous system, digestion, and circulation, and they also stimulated the skin and increased perspiration. Alcohol, given in that manner, certainly arrested fermentation. Moreover, it took the place of food, and acted favourably as food when no solid carbohydrates were tolerated by the intestinal tract. As it was absorbed in the stomach, so did it protect the intestinal tract.

Finally, it is necessary to reduce the amount of secretion taking place from the surface of the intestinal tract. For that purpose astringents might be used, such as alum, lead, tannic acid, pernitrate of iron, and, what had already been spoken of, nitrate of silver. In all those cases in which the stomach participated in the process to any considerable extent, almost any astringent would prove ineffective. To fulfil several indications at the same time, it was often good practice to combine remedies.

The main indications were to neutralize acids, to reduce nervous irritability, to arrest secretion, and to change the condition of the surface of the catarrhal mucous membrane.

For that purpose, in the generality of cases, he combined bismuth, opium, and chalk, according to the following formula: ℞. Bismuth subnit., gr. i; Prepared chalk, grs. ij; Dover's powder, gr.  $\frac{1}{2}$ .

That combination was suitable for a baby ten or twelve months of age, and the dose could be repeated every two hours. In all those cases in which acid was very abundant, it was necessary to increase the doses of antacids without necessarily giving large doses of opium.

Hot bathing was especially serviceable in

those cases in which the surface was cool and the temperature of the body, measured in the rectum, was pretty high. To relieve intestinal pain, plain warm fomentations; to relieve heat, cold applications were sufficient.

*Camphor* stimulated the heart, and reduced temperature, and might be used internally or subcutaneously according to the necessities in the case. For subcutaneous injections it might be dissolved in either oil or alcohol. The effect derived from camphor as a stimulant was not permanent, but very much more so than that produced by carbonate of ammonia. The dose might be from  $\frac{1}{4}$  to  $\frac{1}{2}$  a grain every hour or two, when only a moderate stimulation was required. In urgent cases it might be given in doses of from five to ten grains in the course of an hour, and usually the effect would be favourable. It was, however, only in cases in which real collapse was present that doses of five or ten grains would be required.

There was no remedy that would act more favourably in conditions of great debility and collapse than *musk*. It might be given in doses of five or ten grains, and repeated every half hour or hour. More than two or three such doses would not be required to yield a result.

#### THE USES OF THE HOT-WATER DOUCHE IN PARTURITION.

Dr. ALBERT H. SMITH, in a paper read before the Philadelphia County Medical Society (*Phila. Med. Times*, Aug. 16, 1879), claims as facts proven by experience that the hot-water douche (110° to 115°) thrown upon the cervix uteri or the rim of the undilated os will stimulate contraction of the longitudinal and oblique muscular fibres of the uterus into an expulsive effort, while the circular fibres surrounding the os relax under its influence; 2d, that a similar douche thrown into the cavity of the relaxed and bleeding uterus, after the expulsion of the fetus or the placenta, will produce prompt and vigorous condensation of the uterine walls, with an immediate closure of the sinuses; and, 3d, that a like application to a bleeding surface from laceration in the passage of the child through the pelvic canal will arrest the hemorrhage at any point, whether it be from a tear of the circular artery in the cervix, or from rupture of the vascular tissues upon the anterior margin of the vulva about the vestibule, or from the furrows upon the posterior wall and the labia.

Dr. Smith has found the application to the cervix of the hot douche thoroughly and rapidly effectual in the first stage of normal labour at full time, almost equally rapid in a rigid condition in an accidental premature labour, and more slowly—though with ultimate effect,—in the induction of labour in a quiescent uterus. The method of application is simple. The pa-

tient should lie upon her back, with a bed-pan placed far under her sacrum, so that there should be no danger of the water getting upon her clothing.

The injection should be thrown into the vagina with a syringe with a rubber tube and metal nozzle with a large hole in the end, and Dr. Smith prefers the Davidson bulb-syringe, as the stream can be driven with more force, and with the intermittent action necessary with that instrument. A quart to three pints of water medicated with  $\bar{5}$  ij of 90 per cent. solution of carbolic acid, or  $\bar{5}$  ss of Labarraque's solution should be thrown into the vagina. The pipe being directed *against* the cervix, not into it. The douche may be repeated every hour or two, according to the demands of the case, or the violence of its results.

The condition in which we get the most signal effects from the douche is that of uterine inertia after the placenta delivery, and in this condition Dr. Smith is inclined to think that we have an absolutely reliable agent to control bleeding—an agent which may reduce the terrors of post-partum hemorrhage, and make its fatal termination an almost impossible event if applied at any time while power of reaction is not entirely exhausted.

The nozzle should be carried on the index finger into the vagina, while the opposite hand grasps firmly the uterine globe. The fingers in the vagina may be moved about freely to break up clots rapidly, there being sometimes a complete distension of the vagina with firm, hard coagula. The stream is kept up continuously, washing out as fast as the clots are loosened; the nozzle is to be carried to the os uteri, and directed into the orifice. If the coagula in the uterus are loose and not abundant, the force of the stream may be sufficient without carrying the finger into the uterine cavity; but if the hemorrhage has been great, and the uterus largely distended, it is better boldly to introduce the pipe, guarded by the finger, and moving it around gently, let it, with the aid of the stream, detach from the intra-uterine surface all shreds of membrane or small coagula which may be found adherent to the surface, and which, if not removed, will act as centres of coagulation. While this is going on, the hand upon the uterine tumour feels it steadily and, generally, instantly contracting, condensing itself into a firm, hard mass, receding completely into the pelvic cavity below the brim. The water passing from the vulva is soon observed to be free from colour, and the hemorrhage is arrested. A uterus after such accident ought to be carefully watched and compressed in the hand of the accoucheur or of an assistant until all probability of secondary relaxation is over.

Finding the use of the douche so successful in controlling hemorrhage, it has naturally follow-

ed to adopt it as a preventive, and for nearly two years past Dr. Smith has been resorting to its use habitually (or at least wherever at all easily practicable) in every case of labour. The apparatus is made ready during the latter stages of labour, and, so soon as the placenta is delivered, the douche is administered precisely as just directed for the relief of hemorrhage, except that it will rarely be necessary to carry the finger and the pipe farther than to the os uteri (the *internal* os, the *external* os, and cervical cavity being expanded at this stage). The vagina is thus cleansed and disinfected by the water—medicated as before—the clots are washed from the lower segment of the uterus, and the organ stimulated to contract—which it does firmly, rarely showing a disposition to relax, and often remaining low down in the pelvic cavity below the brim for twenty-four hours; and in no case so far, where satisfactorily done, has any flooding occurred after it. After-pains are diminished greatly, and the lochia but slightly abundant.

As to any danger from the absorption of the carbolized solution, it seems almost impossible, where the outlet of the uterus is so patulous as it is after labour, that any fluid could be retained in its cavity long enough to be absorbed; but the recent statements of so reliable an authority as Fritsch, that serious consequences have followed its use in some cases, would make it desirable that every precaution should be taken against such retention.

#### ADVANCES IN PHARMACY.

By WM. H. TAYLOR, M.D., Richmond, Va., Reporter to the State Medical Society.

(Continued from our last.)

*Pharmaceutical Uses of Milk Sugar.*—In some parts of Europe it is customary to keep many poisonous articles triturated to a uniform powder with milk sugar, and many salts in solution of a definite strength (Maisch). Mr. Walter E. Bibby suggests this praiseworthy use of milk sugar for this country. He recommends that trituration of the poisons in common use be made of such a strength that each grain of the trituration shall represent a certain quantity of the poison—in the proportion, say, of one grain of the poisonous substance to seven grains of sugar of milk, making in all eight grains, the whole to be most completely and thoroughly triturated. He prefers sugar of milk to any other diluent, because of its hard, gritty, odorless, almost tasteless and but slightly hygroscopic character. The great advantage of this method is in the facility which it affords for the very accurate weighing of small quantities of active medicines. Mr. Bibby also, extending Mr. J. C. Biddle's plan of incorporating milk sugar with powdered squill to prevent it from

caking, has applied it with great satisfaction to a large number of the gum-resins which are often required in the state of powder. He recommends either three parts of the gum-resin to one of milk sugar, or two of the former to one of the latter—the powder to be preserved in a well-stoppered bottle. For guaiac resin and squill, he uses nine parts to one of milk sugar. In this proportion (nine to one) he likewise finds that it retains camphor in powder better than any substance he has tried. He has also experimented with it in the manufacture of mercurial pill and mercury-with-chalk, and expresses entire satisfaction with his results.

*Solution of Salicylic Acid.*—The rather sparing solubility of salicylic acid is a considerable impediment to the employment of this agent, the use of which is so rapidly extending in so many directions. Many formulæ have been proposed for promoting its solubility, and from them we select the following: ℞ Phosphate of sodium or ammonium, 2 or 3 parts; water, 50 parts; salicylic acid, 1 part. ℞ Glycerine, 12 ounces; borax, 2 ounces; salicylic acid, 1 ounce. ℞ Spirits of nitre, 4 drachms; syrup of tolu, 1 ounce; salicylic acid, 5 grains. ℞ Sulphite of sodium, 2 parts; water, 50 parts; salicylic acid, 1 part. ℞ Alcohol, 4 drachms; water, 3 drachms; glycerine, 1 drachm; salicylic acid, 4 grains. ℞ Solution of acetate of ammonium, 1 ounce; salicylic acid, 16 grains. The following remarks of Mr. Chas. Becker are of value in this connection:

“The addition of the phosphate of ammonium or sodium has been recommended to increase the solubility of salicylic acid in water; but these agents really amount to but very little, as a solvent of one part of the acid in three of either phosphate, and fifty parts (by weight) of water, throws down a precipitate in less than twenty-four hours. An addition of two parts of sulphite of sodium to one of salicylic acid, in fifty parts of water, precipitates in a few hours. Borax, in the proportion of two parts to one of salicylic acid and fifty of water, precipitates slightly after twenty-four hours; a solution of one part each of salicylic acid and borax in five parts of glycerine and twenty-five of water is permanent; while the same proportion of borax, acid, and glycerine in fifty parts of water will precipitate after twenty-four hours. A solution of one part of acid to two of borax in twelve parts of glycerine, made with heat, is permanent; but when one part of this solution is diluted with three parts of water, which makes it two parts of salicylic acid, four of borax, twenty-four of glycerine, and ninety of water, a cloudiness appears in a few hours. One part of salicylic acid with one part of water of ammonia (20°) forms, with ten parts of water, a permanent solution; this has a light-brownish color, a very faint odor of ammonia, a very

distinct, sweet taste of the acid, and a slight acid reaction on litmus paper. Salicylic acid is soluble in ten times its weight of dilute alcohol at a temperature of about 80° F., in one and a half times its weight of alcohol (0.835 sp. gr.), and in twice its weight of sulphuric ether. It is nearly insoluble in cold oil of turpentine, but hot turpentine dissolves about five per cent. of its weight. Its alcoholic solution has a decided acid reaction on litmus paper. An addition of one-fifth of one per cent. of salicylic acid to aqueous infusions will preserve them for weeks, and the same proportion added to syrups made with fruit juices, while it will not arrest fermentation after such has set in, it will prevent the same. The acid used in the above experiments was of Schering's make, and perfectly white and inodorous. When one part of salicylic acid and two parts of olive oil are heated together, they form a homogeneous mixture admirably adapted for application to surfaces. The oil will separate to some extent on standing for a time, but agitation will easily combine it again.”

*Compressed Pills.*—An old method of making pills by simple compression of the materials, without an excipient, has been revived, and is considered to be very advantageously applied to certain substances.

*Cachet de Pain.*—These envelopes of bread for the tasteless administration of medicinal powders are prepared by enclosing the substance between two concave wafers, one of which is slightly moistened, and which are then caused to adhere by means of an appropriate press. Their preparation requires some little skill; but when this has been obtained they can be made very rapidly, and are very satisfactory both to physician and pharmacist. The approved method of taking them is with a spoonful of water, in which the cachet has been allowed to soak for a few seconds till it has become soft.

*Solubility of Coated Pills.*—To determine the relative solubility of coated pills, Prof. J. P. Remington has experimented with pills exposed in acid, alkaline and plain water, and in water containing digestive material, and infers that the order of solubility is uncoated pills, sugar coated, compressed, and gelatine coated. Mr. Samuel Campbell objects to Prof. Remington's manner of experimenting, as indicating rather facility of disintegration and not solubility. His own experiments with a solvent corresponding to the gastric juice indicate that compressed pills are most soluble, the pills of the U. S. Pharmacopœia coming next, then the sugar coated, and lastly the gelatine coated. Prof. Remington, replying, maintains that his conclusions are correctly deduced. His results also show that the cachet de pain is superior to any method of coating, in point of permitting the medicine to dissolve or digest readily.

*Disguising the Taste of Cod Liver Oil.*—Chloroform is highly recommended, in the proportion of one fluid drachm to one pint, to remove the unpleasant taste of cod liver oil. It is also recommended for the same purpose as an addition to bitter tinctures and mixtures.

*Disguising the Taste of Castor Oil.*—A modification of the old and favorite mode of administering castor oil in orange juice is offered by Potain. He directs that the juice of half an orange be squeezed into a glass, and after carefully pouring the oil upon this, to add the juice of the other half of the orange, so as to enclose the oil. If pains be taken to avoid mixing the layers, the combination can be swallowed, it is said, without the least perception of the flavor of the oil.

(To be continued.)

#### INCONTINENCE AND RETENTION OF URINE IN CHILDREN.

Mr. Teevan, in a paper read before the Harveian Society, says that the great point is to make out the diagnosis, for unless this is done all treatment is simply empirical. A physical examination should be made in all cases. Mr. Teevan says,—

The surgical causes that may give rise to incontinence are—1, rectal complaints, such as piles, fistula, excoriations; 2, ascariides; 3, a tight foreskin; 4, congenital insufficiency of the external urethral orifice; 5, a calculus impacted in the urethra. The above are fertile causes of the complaint, and all remediable. All of them set up and keep up irritation, and produce incontinence by reflex action. Probably of all the above causes the fourth and fifth are but little suspected of giving rise to trouble. A tight foreskin is a common cause of complaint, and I always advocate its removal, as it is usually followed by the best results. It is well known that the meatus externus is the narrowest part of the urethra, but the relation of its size to the rest of the canal is perhaps not so much attended to as it ought to be. There is a general belief to the effect that so long as there is a hole it suffices for micturition. This, however, is erroneous. If the relation of the calibre of the external orifice to the general urethra be disproportionate, the result is that the urine cannot escape as fast as it ought to do, and irritation is set up in the peripheral extremity of the nerve, which disturbs the vesical centres. For instance, if a boy of twelve or fourteen years of age have a meatus that will only admit a No. 3 catheter, and be suffering from incontinence, we ought at once to suspect that the local obstruction is the cause. Now as regards the last cause of incontinence,—a stone impacted

in the urethra. If I could not discover anything wrong with the rectum or urethral orifice, I would pass a very slender sound, having a beak only half an inch long, to ascertain if there were any stone impacted in the urethra. It is not generally known that a stone in the urethra may give rise to incontinence or retention, according to where it may be situated. If the calculus has only just entered the meatus internus, it will be firmly and accurately embraced by the sphincter, so that no urine can escape along the sinuosities in the stone. If, however, the stone advance half an inch further, incontinence will be the result, for the calculus will then act as a gag, and prevent the sphincter from closing, and the urine will dribble away along the sinuosities of the stone. For a knowledge of this fact I am indebted to Civiale's works; and in several cases of incontinence it has enabled me to detect a stone impacted in the urethra. It might be at first sight imagined that if a calculus be impacted in a boy's urethra it would give rise to great pain and discomfort, but this is not so. As the urine dribbles away, the stone may cause but little annoyance; indeed, I have known patients who have had calculi impacted in their urethrae for years without being aware of it, so little discomfort was there caused. Therefore it would be well not to be misled by the quiescence of the parts. In cases of incontinence where a surgical cause cannot be elucidated, I have found belladonna most useful where the complaint was only nocturnal, as also Sir D. Corrigan's plan of sealing the meatus externus with collodion at bedtime. Strychnia is indicated where the incontinence is diurnal as well as nocturnal. Blistering and an exclusively milk diet must not be lost sight of. If all means fail, the application of a mild solution of nitrate of silver to the neck of the bladder is justifiable.

*Retention of urine* in children is usually due to one of three causes: 1, congenital contraction of the meatus externus; 2, phimosis; 3, stone. The first two causes can be at once determined by ocular inspection. As regards calculus, Mr. Teevan says: It may appear to some that it is easier to discover a calculus in a child when its bladder was full rather than empty; this, however is not so. If a stone cause retention, it must be a very small one, and will, therefore, be found lying at the neck of the bladder, and will be struck as the sound enters that organ. If the bladder be examined when distended, the surgeon will have to grope about after the calculus, and perhaps not find it. If, on the other hand, he sound the patient when his bladder is empty, the stone will be brought to him. Extreme care should be used in sounding children for stone, as peritonitis readily supervenes on too rough handling.—*Lancet*, May 24, 1879.

# THE CANADA MEDICAL RECORD,

A Monthly Journal of Medicine and Pharmacy.

EDITOR:

FRANCIS W. CAMPBELL, M.A., M.D., L.R.C.P., LOND

ASSISTANT EDITORS:

B. A. KENNEDY, M.A., M.D.

JAMES PERRIGO, M.D., M.R.C.S. Eng.

EDITOR OF PHARMACEUTICAL DEPARTMENT:

ALEX. H. KOLLMYER, M.A., M.D.

SUBSCRIPTION TWO DOLLARS PER ANNUM.

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

MONTREAL, NOVEMBER, 1879.

## NEW KYMOGRAPH,

At the meeting of the Medico-Chirurgical Society of Montreal, held on the 31st October last, Dr. Wilkins, professor of Pathology, and lecturer on Practical Physiology, Bishops College, Montreal, gave a demonstration of the cardio-inhibitory influence of the pneumogastric nerve by means of experiments on the rabbit, using a Kymograph of an entirely new form. The manometer used was the ordinary mercurial manometer, but the recording apparatus, instead of being cylindrical, as in all other Kymographs, is a plate of smoked opal glass 36 inches long by 8 inches wide, fixed in a frame having small wheels, which run along a wire track when a tracing is to be taken: behind this glass, which is smoked, three or four paraffine lamps are placed which show the tracing remarkably well as the glass passes in front of the pens in use. The motor power is a small water engine, which at the same time works a bellows for artificial respiration in animals under influence of curare, the rate of speed of which is regulated with the greatest ease. The engine is not in direct connection with the recording apparatus. Motion is transmitted from it by means of a small leather belt to a small shaft having a moveable iron drum, around which a silk-covered copper wire rotates; this wire draws the recording glass. By means of a set of levers the drum is instantly connected or disconnected with the rotating shaft. Any one in a room capable of contain-

three or four hundred could distinctly see the tracings. At the Society the engine was on same table with the other apparatus, but can equally well be placed under the table out of the road, or as fitted in Dr. Wilkins' Laboratory immediately over the sink, power being transmitted to small pulley wheels close to the ceiling immediately above, then along the ceiling to place directly above recording apparatus, then down from ceiling to shaft having iron drum in stand on table.

The artificial respiration apparatus is also placed out of the way on a shelf close to ceiling, air being conveyed from bellows by means of rubber tubing. This apparatus can be used with equal facility in demonstrating the rapidity of nerve influence.

Tracings are quite as distinctly seen by day or by night merely by having it placed directly in front of a window.

The Kymograph used by Dr. Wilkins during the last five years in demonstrations at Bishops College is the same as that in use at University College, London, and other Physiological Laboratories, but only a very limited number can see the demonstrations, but for purposes of class demonstration the new one is very much superior. After the completion of some further improvements which are being made by Dr. Wilkins a complete detailed description of the apparatus will be published.

The *Metal Worker*, published in New York, takes to task rather severely Mr. Mackelcan's criticism on Mr. Hughes' (of Montreal) pamphlet. We must confess the *Metal Worker* has some show of reason on his side. To criticise an article, in order to allow the reader to understand the full value of the criticism, full sentences should be given in quotation, and not fragments, as otherwise the meaning the author intended to convey is distorted.

Mr. Hughes has had a great deal of experience in sanitary matters connected with the drainage and plumbing work of houses, and anything coming from him deserves respectful consideration.

It is only by a fair and thoughtful criticism of each other's experience and opinions that progress can be made in scientific matters.

### TROMMER EXTRACT OF MALT.

Through erroneous classification by the customs, resulting in a charge of 50 per cent. duty upon this article, the profession stood for a time in danger of being deprived of this valuable agent for general use, as the duty named would have placed the remedy beyond reach of patients of small means. We have, therefore, much pleasure in announcing that it has now been correctly classed for duty, and that the price will remain as formerly. Recognizing the Trommer Extract as the standard in this class of therapeutic agents, we are glad to know that it has received the countenance and endorsement of the whole profession in Canada. *See Advertisement, pp. 3 and 7.*

### THE NEW LIBRARY HALL OF THE NEW YORK ACADEMY OF MEDICINE.

The new Library Hall of the New York Academy of Medicine, No. 12 West Thirty-First Street, was formally dedicated on the evening of October 2d, in the presence of a large audience. The new hall measures 28 feet in width by 50 feet in length, and is two stories in height. It forms an extension to the building which was purchased by the Society some four years ago, at a cost of \$42,500, and which they have already found to be too small for their purposes. The entire lot of 128 feet in depth is now covered by the combined structures. The first floor of the hall has been fitted up as a lecture room, and can accommodate 200 persons. The ceiling is lofty, having been carried up to the height of the third floor, a wide gallery extends around all four sides of the room, and communicates with the second floor of the main building through a wide archway, and affords shelf-room for the larger portion of the Academy's library. The most approved methods of ventilation have been adopted. In the centre of the ceiling is a large double skylight, with a space between the upper and lower sashes of about five feet. The lower sash bears the coat of arms of the Society, beautifully finished in coloured glass. Around this lower sash is a space about six inches wide, just beneath which a border of gas jets, sixty-four in number, is placed. By means of this arrangement the room is lighted, and, the flames producing a

current of air, the hot, foul air of the room rushes upward and outward through the upper skylight, while its place is supplied by fresh air admitted through ventilators near the floor. A black marble tablet set in the wall at the head of the room bears the following inscription in letters of gold: "This hall, the gift of Abram DuBois, M.D., generous benefactor of the New York Academy of Medicine, was erected A.D. 1879."

The walls of the hall were adorned with a very valuable and interesting loan collection of portraits of local medical celebrities, mostly of by-gone days.

Dr. Fordyce Barker, President of the Academy, opened the proceedings with an address, chiefly historical, and in conclusion he unveiled and presented to the Academy a beautiful marble bust of Mr. Spencer Wells, which was cut by Professor Liebreich, the distinguished London ophthalmologist, and was greatly admired at the last exhibition of the Royal Academy. Addresses were also made by Prof. Acland, of the University of Oxford; by Prof. Gross, of Philadelphia; Dr. Billings, U. S. A., Librarian of the National Medical Library; Dr. Shattuck, of Boston; Dr. Willard Parker and Dr. Austin Flint, of New York.

### MEDICAL ITEMS.

Dr. Perrigo, Montreal, reports a case of a man's penis being burnt with sulphuric acid. The act was done by his wife through a fit of jealousy, and she took the opportunity of doing it when he was asleep. The poor fellow is suffering a great deal of pain.

### REVIEWS.

*A Treatise on Hygiene and Public Health.* Edited by ALBERT H. BUCK, M.D., American editor of Ziemssen's Cyclopaedia of the Practice of Medicine; Instructor in Otology in the College of Physicians and Surgeons, New York; Aural Surgeon to the New York Eye and Ear Infirmary. Volumes I. and II. New York, William Wood & Co. Montreal, John M. O'Loughlin, St. James street.

The importance of the subject treated in these two volumes can hardly be over-estimated, and

the rapidity with which this importance is being recognized is proved by their appearance. A comparatively few years ago we have no hesitation in saying a publishing house could with difficulty have been found willing to undertake the financial risk which their publication would entail. And why? Simply because the importance of the subject of hygiene was not understood. It is a somewhat singular fact that, valuable and inestimable a blessing as health is admitted to be, too little attention is given to its preservation. With eyes wide open, and the warning cry reverberating from our tympanum, we often expose ourselves to influences, conditions and situations which are of the most baneful character, till at last we are ready to exclaim,—we did not realize the blessings of health till they were gone. Then, again, it is very hard for the great mass of the people to understand why the loss of every man means a direct financial loss to the country. They can appreciate how his family or his relatives, dependent upon him, should suffer financially from his death, but why the city, town, or parish should in like manner suffer passes the comprehension of the majority. And yet, till this simple problem is understood and appreciated, the public, as represented by the mass, will never look upon hygiene with the favor which is its due. The accomplishment of this end may not come for years, but that it will come in time we most surely believe. Within the last ten years much has been done by the educated class in studying this subject, and already we fancy we see the influence which they exert upon the masses,—showing itself in the attention which builders and plumbers are paying to the question of drainage. All this is a good augury: the ball has commenced to move, may it gain size and force as it proceeds. So much for the general subject of hygiene, to which the two volumes before us are devoted. Their size, over 600 pages each, has of course precluded the possibility of our reading them through since they have been received. We have, however, read several of the chapters, with much pleasure and profit. The style of the work is somewhat different to what perhaps might be inferred from the title-page. It is not a huge work, the work of one man, but consists of a series of papers upon almost every hygienic subject, written by men of eminence in the United States, who have

devoted much time and thought to their study. The introduction to volume I. is from the pen of J. S. Billings, U. S. Army, and comprises prefatory remarks, Cause of Disease, Jurisprudence of Hygiene. Part I. is on Individual Hygiene, and comprises the following papers:—1. Infant Hygiene, by A. Jacobi, M.D., of New York; 2. Food and Drink, by James Tyson, M.D., of Philadelphia; 3. On Drinking Water, and Public Water Supplies, by Professor Wm. Ripley Nichols, of Boston; 4. Physical Exercise, by A. Brayton Ball, M.D., of New York; 5. The Care of the Person, by Arthur Van Harlingen, M.D., of Philadelphia; 6. Soil and Water, by Wm. H. Furd, M.D., of Philadelphia; 7. The Atmosphere, by D. F. Lincoln, M.D., of Boston; 8. General Principles of Hospital Construction, by Francis H. Brown, M.D., of Boston. All these papers are evidently of the very highest possible order of merit, and merit a careful and thoughtful perusal. Volume II. contains also a large number of papers, also written by eminent men. They are as follows:—1. Hygiene of Occupation, by Roger F. Tracey, M.D., of the Board of Health, New York; 2. Hygiene of Camps, by Charles Smart, U. S. Army; 3. Hygiene of the Naval and Merchant Marine, by Thos. J. Turner, M.D., medical director U. S. Navy; 4. Hygiene of Coal Mines, by Henry C. Sheaffer, coal editor of the *Miners' Journal*; 5. Infant Mortality (an important contribution), Vital Statistics, by T. B. Curtis, M.D., Boston; 6. Adulteration of Food, by S. P. Sharples, chemist, inspector of milk for the city of Cambridge, Mass.; 7. Public Nuisances, by R. S. Tracey, M.D., New York; 8. Quarantine (with reference to seaport towns only), by S. Oakley Vanderpool, M.D., health officer of New York; 9. Small-Pox, and other Contagious Diseases, by Allan McLane Hamilton, M.D., New York, and B. McE. Emmett, M.D., New York; 10. The Hygiene of Syphilis, by F. R. Sturgis, M.D., New York; 11. Disinfectants, by Elwyn Waller, Ph.D., New York; 12. Village Sanitary Associations, by R. S. Tracey, M.D., New York; 13. School Hygiene (an important paper), by D. F. Lincoln, M.D., Boston. These two volumes are issued in the same style as has been the volume of Ziemssen's *Cyclopædia of the Practice of Medicine*, and they are intended as a substitute to volume I. of that work, which is devoted to hygiene, but from a stand-



point so thoroughly German that it was deemed better not to issue it. We have no hesitation in commending this view, and in recommending to the profession and to the educated public Dr. Buck's work. It is a credit to its editor, as well as to the enterprising publishing house which has produced it.

*Transactions of the Thirty-Fourth Annual Meeting of the Ohio State Medical Society, 1879.* Cott & Hann, publishers, Columbus, O.

This 200 page volume contains an account of proceedings, elections and addresses usually found in society publications. Many of the papers are valuable, having been written by men eminent in the profession; the most important being on Treatment of Consumption, Progress of Surgery, Hog Cholera, Mixed Anæsthesia, Tubercle, Sanitary Laws, Glaucoma, and the Metric System. The work reflects great credit on the Society, as it is well printed and neatly bound in book form. An index would have made it more complete.

*The Student's Guide to the Diseases of Women.*

By A. L. GALABIN, M.D. Lindsay & Blakiston, publishers, Philadelphia. Dawson Bros., Montreal.

This guide contains within its pages the essential portions of gynecological literature condensed, arranged, and illustrated in such a manner as to be of value to the student who cannot find time to consult the larger text books on this subject. The different means employed in making a physical diagnosis are very thoroughly given, only such instruments being mentioned as have been found most useful in examinations. A chapter is inserted on the physiology of normal menstruation, which might as well have been omitted, as it can be found in the text-books to which the student is referred for laceration of the perineum and vesico-vaginal fistula, of which operations the author says nothing. The various malformations of the uterus and vagina are grouped together, and the operations required for their rectification explained. Displacements of the uterus and pelvic viscera receive a large share of attention. To the student this chapter is very valuable, as it so clearly defines the treatment, mechanical and otherwise, which may be adopted for these troublesome disorders so frequently met with, and from the effects of which so many other

affections arise. Hypertrophy, atrophy and inflammations of the uterus receive due attention, along with the different morbid growths. A very full description is given of cystic tumors of the ovary and the operation of ovariectomy,—the balance of the book being taken up with various other affections of the pelvic organs. As a book to be carried in the pocket, and read in those moments of detention which country practitioners often experience, this work will be found both interesting and valuable.

*A Guide to Surgical Diagnosis.* By CHRISTOPHER HEATH, F.R.C.S., Holme, Professor of Clinical Surgery in University College, London; Surgeon to University College Hospital. Philadelphia, Lindsay & Blakiston. Montreal, Dawson Brothers—1879.

The name of Christopher Heath is one familiar to all who have attentively followed English periodical Medical literature, and he has won for himself in the great English metropolis a surgical reputation of which any man might be proud. A clinical teacher for many years, he has had constant opportunity of knowing how students apply the knowledge obtained in the lecture room and from books when put to the practical test of examining patients. This opportunity has shown him that even the best read students have much difficulty in applying promptly the knowledge which they possess. To afford assistance to such is the object of this manual, in which surgical affections are grouped anatomically, and the symptoms of each arranged in the order in which they would be most likely to strike a careful observer. No attempt is made to discuss the pathology or describe the treatment, and the symptoms even are confined to the most salient points. It is a book thoroughly practical in its character.

*Anæsthetic Manual.* By Lawrence Turnbull, M.D., Ph.G. Philadelphia, Lindsay & Blakiston. Montreal, Dawson Bros.

This capital little work supplies a real want, and should be in the hands of all general practitioners, as, although they may know of the dangers incurred by the careless use of anæsthetics, they may not always be aware of the manner in which to avoid them. The author covers the whole ground very well, and gives impartially, as far as he has been able to collect them,

the fatal accidents that have occurred in the administration of each agent. He states that, from the evidence given, chloroform should only be used in those cases where ether has no effect. It has been our experience to meet with such cases in the practice of one of our leading dentists, and we found great care had to be taken in the administration of the more dangerous agent.

The author is to be commended on his remarks where he says anæsthetics should only be given by an experienced person, and that person, at the same time, should give his whole attention to his duty, and not mind the operation any more than if it were not going on. It has been our misfortune to witness three fatal cases from chloroforming in Europe, in two of which failure of the above duty was, in our opinion, the cause.

This little work is a good class-book for students as well as practitioners. We think medical schools should take more pains to teach their students the different methods of administering these agents, and of the dangers connected with them; as it is now it is merely glossed over in the course of *Materia Medica*. A few lectures on Anæsthesia would not be out of place in their curriculum.

*On Diseases of the Stomach, the Varieties of Dyspepsia, their Diagnosis and Treatment.* By S. O. Habershon, M.D., Lond., Senior Physician to, and late Lecturer on the Principles and Practice of Medicine at Guy's Hospital, &c., &c. Philadelphia, Lindsay & Blakiston; Montreal, Dawson Brothers.

This is a work which, from its title, will at once commend itself to the practical physician, and those who read it will find that within its cover is a very large amount of most valuable information. Dyspepsia is a disease, unfortunately, of exceedingly common occurrence, and its effects upon the general, mental and physical condition of the system, are of the gravest possible character. It should, therefore, receive from the profession thorough study, so as to be able to give those who suffer from it every advantage which the art of medicine affords. The work before us enters fully into the various causes which eventually leads to that gastric disturbance, classed under the general head of dyspepsia. It shows the numerous varieties which this disease may assume, and gives the

appropriate medical and hygienic treatment for each. The first noticed is dyspepsia from weakness, whether from general imperfect nutrition, or from exhaustion of the cerebro-spinal system, or from failure of the nerve of organic life,—atonic dyspepsia Dr. Habershon calls it. He then takes them up in the following order: 2nd. Dyspepsia from congestion, as noticed in chronic lung, cardiac, bronchitic and hepatic disease. 3rd. Inflammatory dyspepsia, whether arising from irritants, excesses or improper diet. 4th. Hepatic dyspepsia or "bilious indigestion." 5th. Rheumatic or gouty dyspepsia. 6th. The dyspepsia connected with disease of the kidneys. 7th. Dyspepsia from mechanical interference with the muscular movements of the stomach. 8th. Nervous or sympathetic dyspepsia. 9th. Dyspepsia from fermentation of, or chemical change in, the contents of the stomach. 10th. Duodenal dyspepsia. All these various varieties are considered in a plain, common-sense way by the author, whose book, amounting to over three hundred pages, is a welcome and important addition to our literature upon gastric disturbances.

*Complimentary Dinner given to Professor S. D. Gross by his Medical Friends, in commemoration of his fifty-first year in the profession, April 10th 1879.* Philadelphia, Lindsay & Blakiston; Montreal, Dawson Brothers.

The name of Professor Gross of Philadelphia, America's eminent surgeon, is familiar to Canadian ears, many of whom still bear in warm remembrance his cordial treatment of them during the International Medical Congress of 1877. That he has been given health and strength to follow actively the duties of his profession for such a lengthened period is a satisfaction to the profession of the Dominion, as well as to those who claim him as their fellow-countryman. This little *brochure*, which is prefaced by an excellent steel engraving, contains an account, with all the speeches, of the complimentary dinner tendered Dr. Gross, on his fifty-first year of active professional life. It was certainly an event worthy of commemoration, more especially when the recipient was a gentleman whom the entire profession, the world over, holds in the highest possible esteem. Those who desire to possess the little book can

obtain it from Messrs. Dawson Brothers, or direct from Lindsay & Blakiston, Philadelphia

*Summer and its Diseases.* By JAMES C. WILSON, M.D., Lecturer on Physical Diagnosis in the Jefferson Medical College in Philadelphia. Lindsay & Blakiston, publishers. Dawson Brothers, Montreal.

This is another of the series of American Health Primers, and is written in a clear, sensible way, calculated to attract the attention and guide the judgment of the general public. Among this class their circulation is capable of resulting in much good, while the medical profession will find their perusal both interesting and profitable.

*Eye-Sight, and How to Care for it.* By GEORGE C. HARLAN, M.D., Surgeon to the Wills' Eye Hospital. Philadelphia, Lindsay & Blakiston Montreal, Dawson Brothers.

Still another American Health Primer, and on a subject of great importance, and about which little thought is given till the injury is done. The book is cleverly written, and may prove exceedingly useful.

*Students' Pocket Medical Lexicon.* Giving the correct pronunciation and definition of all the words and terms in general use in medicine, with an appendix containing a list of poisons and their antidotes, &c., &c., &c. By ELIAS LONGLEY. Philadelphia, Lindsay & Blakiston. Montreal, Dawson Brothers.

The title of this little work—for though it contains over 300 pages, they are small pages—gives a good idea of what it is intended for, and there is little need for us to say more. The capacity of its author for the work is attested by the fact that over a quarter of a century ago he was a co-editor in the publication of a similar work, which is said to have had a larger sale than has any work either before or since. It is, we believe, also the only lexicon in existence in which the pronunciation of words is fully and distinctly marked. He adopts the phonetic method, and this is believed to be the best, inasmuch as it notes distinctly every vowel and consonant sound in a word. Its size and shape is handy. Although it is not intended to replace larger lexicons, it has a use peculiarly its own, and for this it is most admirably adapted.

*Memoranda of Poisons.* By Thomas Hawkes Tanner, M.D. Fourth American from the last London edition. Philadelphia, Lindsay & Blakiston. Montreal, Dawson Brothers.

This is a very useful little book, just the thing to help the busy practitioner, and furnish him with a guide in dealing with cases of poisoning to which he may suddenly be called upon to attend. It is equally useful to the student, to whom it will supply a large amount of information in a compact form.

#### OBITUARY.

Died at sea, on the 20th of October, GEORGE WILLIAM CALENDER, F.R.S., Surgeon to, and Lecturer on Surgery at St. Bartholomew's Hospital.

Mr. Callender's many friends on this side of the water will learn with sincere regret the sad termination of his holiday trip to this continent. He arrived, accompanied by his two elder daughters, at the end of August, apparently in excellent health; a month later he began to experience fatigue in travelling, which was aggravated by the extreme heat of the season, to which he was unaccustomed. In the early part of October, while in Philadelphia, he suffered from malaise, dyspnea, and other symptoms, the gravity of which led him to seek medical advice. Dr. Da Costa was called in, and found him labouring under unsuspected advanced Bright's disease, of a chronic form. Notwithstanding his extremely ill condition, it was deemed advisable, after careful consideration of his case in consultation with medical friends, to yield to his strongly expressed desire to return home. Accordingly, on the 15th of October, he was conveyed on a stretcher by a special train to Jersey City, and thence by a tug to the steamship Gallia. He bore this part of the journey so well as to encourage his friends in the hope of his reaching England and passing his last days at home, but a cable dispatch from Queens-town informs us of his death when five days out. While sick in Philadelphia he was the guest of friends from whom he received every attention that kindness and sympathy could suggest.

Mr. Callender was not only an accomplished surgeon and a careful operator, but a man of

wide general culture. Although not a prolific writer, his contributions always commanded attention as the results of a large experience and of careful observation. He held the positions of Surgeon to the Charter House, and Examiner in Anatomy at the University of London. In 1877 he was elected President of the Clinical Society of London.

#### PERSONAL.

Dr. Craik (Montreal) has been confined to his house for several weeks from a poisoned wound of the second finger of his right hand. The nail had to be removed, and the affection has been exceedingly painful throughout.

Dr. Ritchie (M.D., McGill College, 1876) has removed from Montreal to St. Paul, Minnesota, where, under the auspices of the new lessees of the St. Paul and Manitoba Railway (Messrs. Stephens and Angus), he has a brilliant future. We commend him to the profession of St. Paul as a genial gentleman and a worthy and talented physician.

Dr. Gaherty (M.D., Bishop's College, 1879) is settled at Carillon, in medical charge of the extensive Government works going on in that neighborhood.

Dr. J. S. Edwards (M.D., McGill College, 1879), son of Dr. E. G. Edwards, Ex-President of the College of Physicians and Surgeons of Ontario, has been appointed House Surgeon of the London (Ont.) General Hospital.

Dr. Mitchell, of Amherst, N.S., has been appointed Physician to the Maritime Penitentiary, Dorchester, New Brunswick.

Dr. J. H. Ryan, of Sussex, N.B., has been appointed Associate Coroner for King's County, New Brunswick.

The Hon. Dr. Paquet of St. Cuthbert has accepted the position of Professor of Hygiene in Victoria College Faculty of Medicine, Montreal.

Dr. Alfred Codd, (M.D., McGill College, 1865) is in practice at Winnipeg, Manitoba.

Dr. George W. Nelson, First Rank Honors Primary and Final Years, and Final Prizeman, Medical Faculty of Bishop's College is acting as assistant to Dr. J. H. Cotton, at Mount Forest, Ont.

Dr. Wolfred Nelson,—formerly Assistant Demonstrator of Anatomy Medical Faculty of

Bishop's College, has been obliged to relinquish practice on account of pulmonary trouble, and leave for a warm climate. Dr. Nelson will travel in the W. I. Islands and South America, this winter and next summer, as a correspondent. Articles from his pen, on Climatology, Winter Resorts for Invalids, Notes on Hospitals, etc., will appear from time to time in these columns.

#### MEDICO-CHIRURGICAL SOCIETY.

October 17, 1879.

A regular meeting was held this evening. The President, Dr. R. P. Howard, in the chair.

There were present: Drs. R. P. Howard, President; Henry Howard, John Reddy, F. W. Campbell, Proudfoot, Kennedy, Baynes, Kerry, Bessey, Armstrong, Brown, Brodie, Osler, Roddick, Ross, Gardener, Molson, Shepherd, Smith, Hingston, McConnell, Ritchie, Wilkins and Edwards.

Dr. Osler exhibited as pathological specimens:

1st. Striated myo-sarcoma of kidney in a child of  $3\frac{1}{4}$  years of age, in the practice of Dr. Finnie. It had been considered a case of abscess. Death took place suddenly. Malignant growths in the kidney are comparatively rare, but in children occur with comparative frequency. The tumors are usually soft, and rapidly growing present a greyish white pulpy tissue like softened brain matter. They sometimes form large abdominal tumors, and with cancer of the retroperitoneal glands constitute the great majority of abdominal new growths in children. Tumors containing striped muscular fibre are a curiosity, only some twenty cases being on record.

2nd case was one of cirrhosis of the liver with thrombosis of the portal vein in a man aged 62, an old soldier. History, of drinking habits. Illness began in June with dropsical symptoms. He took a voyage from Newfoundland, his home, to Montreal, and died two days after his admission to the Hospital here. The liver was remarkably cirrhotic, the portal vein had thick walls, which, being slit up, showed a soft brown thrombus occupying the upper part.

3rd. Perforation of the intestine in typhoid fever. Patient died on the 50th day of the disease. The patient, aged 19, admitted on 2nd of September and 9th day of fever, temperature

104°. Until 16th day, moderate fever, constitutional symptoms slight. From the 18th to the 27th day temperature was normal. A relapse occurred on the 31st day, and temperature reached 104°; no diarrhoea. On the 42nd day, there was hemorrhage from the bowels. Tenderness of the abdomen, tympanitis and great exhaustion. Another slight hemorrhage on the 48th day, vomiting the last few days and death on the 50th. The lower part of the illium had three ulcers, one about the size of a sixpence.

Dr. Reddy mentioned a case which had been under his care in the hospital two years ago, where death took place from a relapse following a large meal of mutton chops. This patient had been well for three weeks. The post-mortem showed a perforation not larger than a pin's head at the bottom of an ulcer.

Dr. R. P. Howard remarked that the latest view of relapses in typhoid was that there was re-inoculation from the ulcers themselves.

Dr. Shepherd presented a skull having only one parietal bone, the skull was much longer and narrower than usual. He also showed ossified pubic bones from another subject.

Dr. Roddick presented a highly interesting case of favus to the Society. The patient was under his care in the Montreal General Hospital, a female child, aged 10, who had resided in a low, unhealthy secluded part of the city, and was badly nourished. The disease was well marked on the head, and distributed generally over the entire body. The father had been deaf and dumb from birth, the mother had had pneumonia five times, had given birth to 10 children, the entire family being unhealthy, and all of them had had head eruptions. A remarkably fine painting of this case was also shown to the Society.

Dr. Roddick presented also a drawing of a case of meningocele which had been off and on under his treatment in the Hospital. It was diminished from its original size of small lemon to the size of a walnut. The child subsequently died, not being properly nourished at home, its mother being ill.

Dr. Ross then read a paper on "Thoracic Aneurism."

The meeting then adjourned,

MONTREAL, Oct. 31, 1879.

A regular meeting of this Society was held this evening, the President, Dr. R. P. Howard,

in the chair. There were present Drs. R. P. Howard, Henry Howard, John Reddy, H. L. Reddy, Buller, Blackader, McConnell, Simpson, Ross, F. W. Campbell, Proudfoot, Brodie, Osler, Roddick, Rodger, Armstrong, Guerin, Wood, Major, Browne, Ritchie, Gardner, Fenwick, Bell, Cameron, Molson, Smith, Baynes, Bessey and Edwards.

Dr. Ross proposed and Dr. Osler seconded the proposition of Dr. Gurd as a member of the Society.

Dr. Hill, of London, England, was introduced as a visitor by Dr. Osler, also Dr. R. King, of Peterboro, Ont.

Dr. Osler exhibited, as the first specimen, an ovarian tumor, which had been removed by Dr. R. P. Howard from a patient aged thirty-three, the subject of an abdominal growth for nine months. It was multilocular, consisting of two large cysts, forming the principal part of the growth, and six or seven smaller ones. At the base of the tumor, and corresponding to the ovary, were two dermoid cysts, in which were skin, hair and subaceous matter, but no bones nor teeth.

The second specimen was one of chronic valvular endocarditis, with insufficiency of the aortic valves, hypertrophy and dilatation of the heart, occurring in a hospital patient aged fifty-four. There was no history of rheumatism, had had syphilis; he had been a hard drinker. For the past two years he had been in the hospital several times for treatment.

Dr. R. P. Howard then gave part of the Presidential address, but it had to be postponed, owing to the experiments of Dr. Wilkins being ready. The Society adjourned to the adjoining room, where Dr. Wilkins gave a series of experiments on the inhibitory action of the pneumogastric nerve.

O. C. EDWARDS, *Secretary.*

#### THE OLDEST LECTURER IN EUROPE.

The veteran chemist, Chevreul, whose name is associated with researches on fats and fatty acids, now in his ninety-third year, began, we read, his usual course of lectures on organic chemistry at the Museum of Natural History at Paris a short time since.—*British Med. Journal.*

#### BIRTH.

In Montreal, on the 14th November, the wife of Oliver G. Edwards, M.D., of a son.