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Original Communications.

SOME REMARKS ON DIABETES.

BY THOS. R. DUPUIS, M.D., M.R.C.S. ENG.

Read before the Canada Medical Association, Aug. 18th, 1886, at Quebec.

In discussing diabetes, my object is to direct attention to a few interesting facts in connection with its pathology, its prevalence in this country, and to institute a comparison between the older authorized treatment, and the latest treatment by bromide of arsenic, as far as my experience has extended.

Diabetes, or distinctively diabetes mellitus, is, as you all know, a disease characterized by an increased flow of saccharine urine. The disease has been known for many years, and the term diabetes was formerly applied to any augmentation of the urinary flux. In 1674, Willis discovered the sweetness of the urine, previous to which time the true nature of the disease had not, as we know of, been suspected; since that time, however, the presence of sugar has been regarded as a character of the disease, and the name diabetes has now become almost synonymous with glycosuria. Dr. Cullen, over one hundred years ago, wrote as follows: "Dr. Willis seems to me to have been the first who took notice of the sweetness of the urine in diabetes, and almost every physician of England has, since his time, taken notice of the same. Though neither the ancients, nor in other countries of Europe, the moderns, till the latter

were directed to it by the English, have taken notice of the sweetness of the urine, it does not persuade me that either in ancient or in modern times the urine in diabetes was of another kind. I myself, indeed, think I have met with one instance of diabetes in which the urine was perfectly insipid." But enough of what at the present time we all know.

Although this disease is not of very great frequency, its generally fatal character, and when not fatal, the slavish restriction which it imposes upon its subjects, are sufficient to induce us to hail with welcome any and every method of treatment which holds out a fair prospect of cure, or of a large measure of relief. The disease is not common in childhood, although I have found a number of cases in children reported in the medical journals, and other works which I have consulted, some of them in subjects as young as 3, 2½ and 2 years of age, and such were all fatal. In the early part of adult life, death is more certain from it than in the latter part; elderly persons bearing the loss of assimilated nutriment entailed by it, better than younger ones. The tables of mortality in the "Reports of Deaths" in Ontario for 1884, afford us a great many interesting facts relative to this disease. I shall quote some of them here. Out of 21,702 deaths reported in that year, 70 were from diabetes; or 1 in 310. The males were 48, and the females 22. The proportionate number of deaths at different ages are given as follows: Under 5 years, none; from 5 to 10 years, 3; from 10 to 15 years, 6; from 15 to 20 years, 5; from 20 to

30 years, 10; from 30 to 40 years, 13; from 40 to 50 years, 3; from 50 to 60 years, 10; from 60 to 70 years, 7; from 70 to 80 years, 6; from 80 to 90 years, 2; over 90 years, none. According to this tabulation men suffer more than twice as frequently as women from this disease; childhood is comparatively exempt from it, and the greatest number of deaths from it occur during the most active periods of life. All the deaths from diabetes which have come under my notice have occurred before, or about, the middle periods of life; but I know of several elderly persons who have had the disease for a number of years, and who by a little proper medication, and severe restrictions in diet, are enabled to remain in comparatively good health.

It is evident that diabetes is neither epidemic nor endemic, but there seems to be something in the manner of living amongst certain classes of the community, that renders them more liable to the disease than others are. Amongst the country population, it proves to be more prevalent, according to our own "Death Reports," than amongst those of the cities; and the larger the city, apparently the smaller the proportion of deaths from diabetes. According to reports, in the great city of New York, out of 1,379 deaths, only one was caused by diabetes, and in Philadelphia, only one in 875. Taking the five largest cities of Ontario, viz., Toronto, Hamilton, Ottawa, London and Kingston together, we find 7 deaths from diabetes in 4,524 deaths, or 1 in 646 $\frac{1}{2}$. Taking all the cities and towns together, and we get 11 from diabetes in 6,737 deaths, or 1 in 612 $\frac{1}{2}$. Taking the smaller cities and towns by themselves, and we find 4 deaths from diabetes in 1,421 deaths, or 1 in 355 $\frac{1}{2}$. Taking the whole Province, and we find 70 deaths from diabetes, in the grand total of 21,702 deaths, or 1 in 310. But taking the counties alone, leaving out all the towns and cities, and we are confronted with the large proportion of 59 deaths from diabetes in 15,657 deaths, or 1 in every 253 $\frac{3}{4}$. Again, out of the 31 cities and towns in Ontario, nearly one-half (14), viz., Brantford, Walkerton, St. Thomas, Windsor, Kingston, Owen Sound, Belleville, Goderich, Sarnia, Napanee, St. Catharines, Cobourg, Whitby and Berlin, report no cases of diabetes, and the large city of Toronto reports

only 4; the cities of Hamilton, Ottawa and London, 1 each, and the city of Kingston, none. But when we turn to the counties, the facts are quite different, and add stronger confirmation to the theory which I venture to propound, that diabetes is more prevalent in agricultural regions than in towns and cities, that it is, in fact, a "country disease."

Thirty-nine counties in Ontario have reported deaths, and only 8 out of the 39, or about one-fifth, have reported no deaths from diabetes. These are the counties of Algoma, Elgin, Frontenac, Hastings, Norfolk, Oxford, Prescott and Russell, and Welland.

From the scattered situation of the foregoing counties, and the proportionately small number which have been exempt from the disease, all notion of an endemic influence is dispelled, but the presumable fact remains that there is something in the habits of life of our agricultural population, which predisposes them to this disease.

Of 11 cases of which I have taken note, 7 were farmers, or farm laborers; and I think the remaining four lived either in small villages or in country places. Authorities state that it is more prevalent in the agricultural counties of England than elsewhere, and in Normandy in France, which is largely an agricultural section of that country. Regarding its geographical distribution in the various countries of the world, there does not seem to be a sufficient difference in its occurrence amongst them, to lead to any definite conclusion respecting its origin. India, and a few other places, are said to be more liable to it than the rest of the world. The pathology of diabetes is a most difficult problem; perhaps for two hundred years the best minds in the profession have been directed to its investigation, and of late years volumes have been written upon its proximate and remote causes.

"Old Cullen," as we call him, came to a conclusion, by his acute powers of observation, that no "topical affection of the kidneys has a share in producing this disease, and that a fault in the assimilation of the fluids is rather to be blamed, and that even the *solid food taken* increases the quantity of the urine voided, at the same time with an increase of the saccha-

rine matter."—(*Proct. Pylh. Art. 1510.*) Since his time its origin has been sought for, one might say, in all the different organs and tissues of the body. The brain and the nervous system—especially the sympathetic—it has been shown, play a very important part in the production of glycosuria. Some of the experimental operations which may give rise to it are the following, viz. :—

1. Irritation of the diabetic centre, which is situated in the floor of the fourth ventricle, at the roots of the pneumogastric nerves.

2. Transverse section of the medulla oblongata.

3. Section of the spinal cord above the second dorsal vertebra.

4. Section of the filaments of the sympathetic nerve accompanying the vertebral artery.

5. Destruction or extirpation of the superior cervical ganglion.

6. Sometimes, but not always, division of the sympathetic on the chest.

7. Section or extirpation of the last cervical ganglion.

8. Section of the two nerve filaments passing from the inferior cervical to the superior thoracic ganglion.

9. Section or removal of the upper thoracic ganglion. All of them being operations which more or less paralyze the vaso-motor nerves of the liver.

In a paper by Dr. Hall White, "On the Sympathetic System in Diabetes," reported in the *Brit. Med. Journal*, 1884, pp. 1245, 1246, he says, that by microscopic examination some change in the nerves was found, usually of a chronic inflammatory nature. There was much increase of small cells, great engorgement of vessels, and new growths of fibrous tissue, and such other important changes, that he concludes that the cause of diabetes resided in the sympathetic nervous system. This view is still further strengthened by the fact that irritation of the central end of the cut vagus will produce glycosuria, but irritation of the peripheral end of the cut nerve will not produce it; indicating that the influence of the sympathetic is required, and that this influence must proceed from a ganglion, or, in this case, be reflected from the central termination at the

medulla oblongata of the fibres which accompany the vertebral arteries, or other fibres passing down to a lower ganglion. Since irritation of the cut end of the vagus which remained in connection with the brain was found to produce glycosuria, it was rationally concluded that the pneumogastric conducted the irritation as a sensory nerve, and therefore that irritation of the peripheral distribution of the pneumogastric, in any organ to which it is distributed, would by reflex action cause it also. Thus the action of certain drugs, of abnormal states of the stomach, liver, and other organs to which the pneumogastric is distributed, in giving rise to the disease, is accounted for.

Irritation of other parts of the sympathetic system of nerves, or of sensory nerves, by diseased organs or otherwise, may, by reflex action, become a chief factor in the causation of this disease. Hence we find in the *Brit. Med. Journal*, July 11, 1885, a case recorded by Francis Imlack, M.D., in which diabetes was due to ovarian irritation from chronically diseased ovaries, and which was cured by bromide of ammonium and Clemen's solution of bromide of arsenic, after the uterine appendages had been removed. Hence we find such cases as those described by Lawson Tait, which occur in women about the time of the menopause, and which terminate after their systems become accommodated to their changed conditions. Mr. Tait, however, associates eczema of the vulva with these cases. These three conditions, no doubt, are often found together; but cessation of the menses is not a necessary accompaniment of the diabetes which causes eczema of the vulva, for I have now in my mind two women, both suffering in a similar manner with diabetes and eczema vulva,—one since her menopause a few years ago; but the other, being younger, and having had two children since the accession of the diabetes. Some observers maintain that saccharine urine and certain conditions of the menstrual functions, have an interdependence on one another. And this would not be strange when we consider the sugar-producing powers of lactation; but it is, nevertheless, doubtful. Some also have detected marked changes in the brain and spinal cord in subjects who have died of diabetes;

while other, and perhaps equally as acute observers, have not been quite satisfied as to the origin and value of such lesions, or whether they were a cause or a consequence in their relation to diabetes.

Of the *abdominal* organs, the *pancreas* is the one most frequently affected—a thing we should expect to find on account of the important part which it plays in the digestion of fatty and amylaceous matters. According to "Tyson's Statements" it undergoes a pseudo-hypertrophy, consisting chiefly in a hyperplasia of the connective tissue, fatty degeneration of the gland-cells, and atrophy of the glandular structure. Cancerous disease, calcareous concretions in the ducts, cystic dilatation, etc., have all been enumerated amongst the post-mortem conditions of the pancreas after diabetes. But I may remark just here that cancerous disease of the pancreas does not necessarily cause diabetes; for, less than two years ago I assisted at a post-mortem examination of a professional brother, dead from cancer of the pancreas, and amongst his symptoms had been loss of appetite, little thirst, scanty and high-colored urine, and ascites; symptoms entirely opposite to those indicating diabetes.

The *liver* is occasionally changed in character, sometimes being more or less enlarged; at other times being found atrophied. But either of these conditions might be a consequence of the pancreatic disease. Other authors, from the time of Cullen down to the present, have not been able to connect a diseased state of the liver with diabetes in all cases, inasmuch as it is frequently found quite unchanged and apparently healthy after death from this disease. What might be termed the *nervo-chemical* theory; a theory that would result from a combination of the views of Claude Bernard and Pavy; the former holding in general terms that the process of sugar-formation in the liver is governed and regulated by the nervous system; the latter holding that the hydrocarbons of the food are stored up in the liver in the form of glycogen, and that under certain abnormal conditions the glycogen is converted into sugar, thus producing diabetes; this composite theory has, I say, received an able advocate in the person of P. W. Latham, A.M., M.D., F.R.

C.P., of Cambridge, England. In the "Croonian Lectures," delivered by him at the R.C. P.L., April, 1886, he classes rheumatism, gout, and diabetes in the same pathogenetic category, and ably argues that the whole cause of the incomplete metabolism, which is the great characteristic of diabetes, results from an imperfect condition of the vaso-motor system of nerves. With your permission I will quote some of his statements; but I can make use of only some of them, as they are too elaborately exemplified by abstruse chemical formulæ to make many of them available in a paper like this. He says, "It remains for me to say a very few words with regard to the pathology of diabetes, and to explain why I have classed it together with gout and rheumatism. If the function of the liver be interfered with, so that there is imperfect metabolism of glucose as it passes through the organ, this would be a satisfactory explanation of the origin of the disease, and we should expect in such cases that the urgency of some of the symptoms would be lessened by careful diet, and abstention from saccharine and starchy food." But there are other cases in which the diet seems to have much less effect in controlling the symptoms. It is this form which I wish briefly to discuss. "I have endeavored to show," he says, "that in acute rheumatism by the separation of the cyan-alcohols from the rest of the albuminous chain, we have glycocine, and glycollic and lactic acids formed; the glycollic acid being oxidized into CO_2 and water; the lactic acid in some measure being oxidized into these products, and in some measure passing off by the skin. But suppose that whilst the vaso-motor fibres of the muscular nerve are paralyzed and the vessels dilated, the molecules of a cyan-alcohol are detached and hydrated into glycollic acid, but only partially oxidized, the result would be that the glycollic acid would be transformed into carbonic acid and methyl-aldehyde water. Condensation of six molecules of the aldehyde may then take place as it does in plants, and form glucose." He then continues to show how, when the vaso-motor nerves are in a certain paralyzed condition we may get the formation of not only glucose, but para-aldehyde, a hypnotic, oxybutyric acid, and acetone;

but the steps of his reasoning are so abstruse, and his chemical formulæ so complex, that it would be worse than useless to attempt at this time to follow him. In his conclusion he says, "I have thus endeavored to indicate some of the changes in the nervous system, the blood and the tissues, which may take place in diabetes, rheumatism, and gout. . . . The inference may be wrong, but the facts remain; and I trust that in this way, at least, I have helped to a better understanding of these disorders."

It would be quite superfluous for me to say anything about the long train of symptoms that accompany this disease, or to point out the various methods of testing the urine, for I am not lecturing to students, and you all know these as well as, and perhaps much better than I do. I will pass on to the treatment which I have, I may say, experimented with, and to the methods of treatment which I have seen recommended or used by others. In doing this, permit me to arrange in clinical form the few cases that I shall bring before you, which arrangement, although more cumbrous, is better fitted to exhibit the various points in them, which seem worthy of remark.

FIRST CASE.—A young man, aged 27, a carpenter by trade, had suffered from diabetes about nine months, when I was called to see him. The quantity of urine voided was then growing less, becoming darker in color, and beginning to deposit a sediment on standing. He was greatly emaciated, pulse feeble, had hectic cough, and extreme dryness of the mouth; his tongue was cracked, and his teeth and lips were encrusted by dark sordes. About three days after my first visit to him, coma supervened, and gradually grew more profound, until it terminated in death on the third day afterwards. It was too late for the action of any remedy when I first saw the case; but two important facts are revealed by it, viz.: comparatively short time required for a fatal termination at this age; and the change in the character of the urine, the thirst, and the appetite, towards the termination of the disease.

The **SECOND CASE** was that of a young farmer, aged 22. He was brought to my surgery on the 25th of May, 1886. He was pale, emaciated; had a dry, shrunken look, and was

so weak that he staggered as he walked. His lungs had not given way, and what he chiefly complained of was utter prostration of his physical powers and continuous thirst. A few questions elicited the fact that he had diabetes; and an examination of his urine confirmed it by showing a specific gravity of 1040 and sugar in abundance, perhaps more than 40 grains to the fluid ounce. On the 27th I was called to visit him at his home. There was no improvement, but he was "easier and inclined to sleep," as his mother expressed it. On the 28th I was sent for in haste to come and see him again. I told the messenger who came for me that I could not do "Charlie" any good, but to please the family I would go. I found that the ease and tendency to sleep of the previous day had passed into coma, and that it was almost impossible to rouse him sufficiently to recognise his nearest friends. The coma deepened and the following day he died. On the strictest inquiry I could not find that anything wrong had been suspected in this young man's case, before the latter part of March previous, when his intolerable thirst attracted attention. He had been in the city at school during the winter, and a younger brother who boarded with him told me that he thought it curious that Charlie "made water" so often, during the latter part of the winter. From all the information I could gather I concluded that this young man did not suffer over four or five months from the invasion of the disease; and then certainly in such an obscure way as not to attract much attention up to a few weeks preceding his death, for he worked on the farm till about a week before he came to see me.

THIRD CASE.—Is that of Mr. F., a farmer from Amherst Island, aged 65. He had suffered from diabetes for about a year before coming to me, but latterly he had been growing so much worse that he thought it necessary to apply for relief; this was in the spring of 1881. He was then passing from 10 to 12 pints of urine in the 24 hours, with a specific gravity of 1030, and containing over 20 grains of sugar to the fluid ounce. As he was losing weight and becoming feeble, I placed him upon a supporting course of treatment, wrote out for him an anti-diabetic regimen, but making it as

liberal as possible; substituted glycerine for sugar as a general sweetener of food and drinks; enjoined moderate exercise out of doors, but no hard work; and strictly charged him to use daily friction of the skin and to wear constantly warm flannel underclothing. He visited me several times, extending over a space of three or four months; took a quantity of medicine home with him, and got so much better that he did not return again for over six months. Having at that time experienced an exacerbation of his disorder he came to me again in a condition quite similar to, but not so bad as, he was in the first place.

He attributed his relapse to hard work and errors in his diet. A course of treatment similar to what I had previously prescribed for him, had the desired effect of removing his alarming symptoms, and since that time I have not seen him. Last spring a sister of his came to consult me. I inquired of her regarding her brother's condition, and she replied, "Oh! he keeps quite well; if he were sick again you would soon hear of it." The old gentleman is now about 70 years of age; has lived six years since diabetes first became manifest in him, and by a strict regulation of his diet, and general habits, he is able to keep himself in comparative comfort. The starting-point of his disorder was, as far as he could discover, working in low lands repairing fences, and similar employment during the variable weather of spring, suffering wet feet the most of the time, and getting occasionally drenched by a sudden shower of rain, causes, you see, which would readily produce rheumatism and kindred disorders.

Bromide of arsenic was not then generally known as a remedy for diabetes, and the medicinal treatment I gave him was as follows, viz., 5 grains of crystallized pepsin with 20 minims of dilute hydrochloric acid, in water, were given three times a day before eating, and 2 grains of permanganate of potash, dissolved in pure water, three times a day, two hours after eating; one-twentieth of a grain of hydrochlorate of pilocarpine placed upon the tongue from two to four times a day, according to the dryness of the mouth, and opium and bromide of potassium *pro re nata*.

The FOURTH CASE, and one that made a great impression upon me, was that of Father S., a Catholic priest, who lived in a town in Ontario, but whose personal acquaintance I made in Paris. He was a well-developed, fine-looking man, and a gentleman in every sense of the word. I was attending the clinical lectures of Dr. Charcot at La Salpetriere, and at Father S.'s expressing to me a desire to see Dr. Charcot I took him along with me. After a long and exceedingly pleasant interview with the doctor, he advised him to go to Vichy and try the waters. The next day the good father bade me an *au revoir* and started for Vichy, saying as he did so that he had tried all the remedies prescribed for diabetes; had consulted the best physicians of Canada; had obtained the advice of eminent men in London; and now that he had seen the man he most desired to see he would be guided by his directions. This was in the first part of August. About the first of October he returned, and called in Kingston to see me on his way home, calmly stating that he came home to die; that all his efforts for relief had ended in failure, and that he was satisfied that there was no more hope in his case. This gentleman had been suffering from the disease about four years when I made his acquaintance, and up to that time his chief suffering had been more from inconvenience than otherwise. Then, however, he had begun to experience great muscular weakness, an aversion to every kind of exercise, some confusion of thought and loss of memory, although at the same time looking plump and healthy. The history he gave me was that in the summer of 1879, I think, during very hot weather, he was busying himself amongst some workmen who were doing some work about his parsonage, and he noticed that he became thirsty very frequently, and drank large quantities of cold water without experiencing the relief which ought to have followed them. He, of course, attributed his thirst to the heat, until some days afterwards finding his intolerable thirst becoming persistent, and noticing also that he was compelled to empty the bladder very often, he began to suspect something wrong, and then consulting a physician, he was shocked by the

sad information that he was suffering from diabetes mellitus. He could assign no cause whatever for the onset of the disease. He had lived a regular, active life; devoted himself to the pious functions of the priesthood; was an enthusiastic and consistent teetotaler, and a man of splendid physique. What interested me chiefly in his case was the insidious approach of the disease, the absence of any known adequate cause; the impotency of all remedies known at that time; and the appearance of vigor and robust health, which he retained up till near his end.

The FIFTH CASE I shall notice is that of Mr. A., a respectable and well-to-do farmer, aged 55, and an active and prominent official of the county of Frontenac, in the rear of which he lives. He first came to me in the autumn of 1884, having then had the disease for over three years. Beyond a faded and wearied look, there was nothing in his general appearance to indicate the grave nature of the disease from which he was suffering. He complained of general debility, loss of ambition, failure of sexual powers, inability to think clearly, and more or less difficulty in remembering various incidents; and on examination I found all the characteristic symptoms of diabetes present. He was voiding from ten to twelve pints per day of almost colorless urine, having a specific gravity of 1035, and containing about 30grs. of sugar to the fluid ounce. I placed him upon the same treatment given Mr. F., and enjoined a similar regulation of diet. He was already pretty well acquainted with the "diabetic diet," having used at various times bread made from "gluten flour," "diabetic flour," and bran. He continued this method of treatment for about eight months, and then I added to it the following phosphate mixture recommended by Charteris, which see, viz.: Bone-ash of femur, 1040 grs.; light calcined magnesia, 406 grs.; bicarbonate of potash, 900 grs.; phosphate of soda, 3520 grs.; syrup phosphoric acid, q. s. and water, q. s. The bone-ash was powdered finely and mixed with four ounces of the phosphoric acid previously diluted with an equal bulk of water, and after thorough mixing, allowed to stand for eight hours. At the same time the magnesia was mixed with enough

water to form a mass, and a sufficient quantity of phosphoric acid added to form a solution. The phosphate of soda and bicarbonate of potash were dissolved in 16 $\frac{2}{3}$ of water, to which the solution of magnesia was added, and a sufficient quantity of phosphoric acid to form a clear solution; to this was added the bone-ash, previously mixed with phosphoric acid, and enough water to bring the mixture up to three pints. This solution was filtered, and the filter washed with pure water until this liquid measured sixty-four ounces. Of this solution, \mathfrak{z} i. was given in water three times a day after meals. This, you will say, is a complicated formula, and ought to be well adapted to a complicated disease! This line of treatment was continued up to the 28th of October, 1885, the only variation being the use of buckwheat flour for bread. In the spring of last year, 1885, I visited England again, and finding that buckwheat flour had been highly commended by some authorities as a curative diet in diabetes, I immediately wrote this to Mr. A., and from the time he received my letter till October 28th, as above noted, he had been using the buckwheat, and he thought with excellent effects. About this time, October 28th, 1885, although he had gained in weight and strength, the quantity of urine being diminished, with a less quantity of sugar, and seemed to be slowly improving, he began to grow tired of such a sameness of treatment, and expressed a desire for change. I then, as an experiment, resorted to the treatment recommended by Beach in his *American Practice*, continuing the permanganate of potash, however, only giving it in the form of compressed tablets instead of in solution. Beach's, or, as it is called, "the eclectic treatment," is nearly as follows:— Three pills at night and three in the morning, each containing 1 gr. of pulverised capsicum, and 3 grs. of extract of dandelion root were administered; and a tablespoonful three times a day, before meals, of the following mixture: Fluid extract of cimicifuga, \mathfrak{z} x.; fluid extract of hydrastis Canadensis, fluid extract of prunus Virginiana, of each \mathfrak{z} ij; camphor water up to \mathfrak{z} xxx.

Nov. 19th, he visited me again and expressed himself as much better, so that I thought it

prudent to continue the same treatment, not neglecting the pilocarpine, but omitting the pot. permang. as he complained of its nauseating his stomach. On the 11th of February last, he presented himself before me again, really much better in every way than he had been since he first came under my care. Being anxious now to try the bromide of arsenic, and to please him by a little change, I put him upon 3 minim doses of "Clemen's Solution" in water three times a day after meals. He has faithfully used this remedy since that time; I have seen him three times since then, and he has expressed himself as feeling "pretty well;" his urine has been less abundant, specific gravity lower, quantity of sugar diminished, the bad feelings in his head gone, his general strength improved; and the last time I saw him he stated that he had gained 7 lbs. in weight. On the morning of Aug. 17th, 1886, I received a letter from this gentleman which concludes, "I feel middling well at present."

THE SIXTH CASE I shall notice is that of a general laborer, aged 33, by the name of Norris Hill, I admitted in the Kingston Hospital on the 23rd of last February. He was very weak and anæmic looking, his pulse quick and feeble, tongue coated, bowels constipated, appetite poor, and thirst unquenchable. He was passing 12 quarts per diem of colorless urine, specific gravity 1040 with about 40 grains of sugar to the fluid ounce. After his bowels were freely opened he was restricted to an anti-diabetic regimen and given Clemen's solution of the bromide of arsenic, 4 minim doses three times a day. On the 16th of March, his urine had diminished in quantity to 8 quarts per diem specific gravity lower and sugarless. He was feeling so much better that in spite of all my persuasions he left the hospital and went home—a distance of 40 miles—to visit his friends. In about a month he relapsed into his former condition, and returned to Kingston to enter the hospital again; on arriving in the city he went to a friend's house to stay over night, and was found in the morning dead in his bed.

THE SEVENTH CASE, and the last I shall notice, as time would fail me to do more, is that of Richard B., a well-to-do farmer from

Renfrew, aged 36, and who, as well as Mr. A., is still under treatment. He came to me on the 12th of May last, weak and thin, having in addition to the usual symptoms of diabetes a hacking bronchial cough which worried him greatly. He had been suffering from diabetes for 14 months, and during this time had been treated with iron, strychnine, ergot, etc., without experiencing any relief. On examination I found him passing 16 pints of urine per day, its specific gravity 1034, and the sugar about 35 grains to the fluid ounce. He was ordered anti-diabetic regimen, given one-twentieth grain doses of pilocarpine to be placed on his tongue three times a day, and 3½ minim doses of Clemen's solution of bromide of arsenic, in water after meals. On account of his dyspeptic condition and debility, I gave him pepsin and hcl. with glycerine and water before meals. He straightway began to improve. He visited me again on the 12th of June, feeling a great deal better; quantity of urine 12 pints per diem, specific gravity 1032; sugar 30 grains ad fl. ʒi. Treatment continued the same excepting a slight augmentation of the dose of bromide of arsenic. July 27th he sent me a bottle full of his urine, accompanied by a letter stating that he felt "much stronger" and was passing only 10 pints of urine per day. The specific gravity was 1030, and the quantity of sugar 22 grains to the fluid ounce. On the morning of the 17th inst., I received a letter from this gentleman also, in which he says, "I have been loose in my bowels during the last week. I think it is using so many berries and vegetables that keeps me right. I am never so thirsty, and I feel better when I am loose in my bowels. I have used no medicine but the diabetic (Clemen's solution of bromide of arsenic), this last four weeks, my appetite is so good that I thought I need not. The last bottle puffed my face and legs. Send me another bottle of 'diabetic medicine.'" So that Mr. B. is evidently improving. I have four cases more on my note book which possess some points of interest, but which for the present I must omit. Let me now notice more particularly a few of the foregoing cases, in some of their features. The first two cases noticed show the rapidity with which diabetes does its fatal work

in young subjects, and is a good illustration of the change in symptoms, and the course that supervenes during the last few days of life.

Mr. A. has had the disease for more than five years, has tried a variety of treatment, and is certainly better now than he was two years ago. He seemed to have been benefited somewhat by all the medicine he had taken, and at present seems to be quite well satisfied with the action of the bromide of arsenic, which he has now been using for nearly eight months. He thought at one time he was greatly improved by the use of a medicine which he was in the habit of buying from an advertising physician in Detroit; becoming tired of paying ten dollars every few weeks for a package of white powder not much bigger than an ounce of tea, he brought me some of it for examination. On analysis by Prof. Goodwin, of Queen's University, it proved to be a mixture of salicin and bicarbonate of potash. But it must not be forgotten that Mr. A. has become an expert in regulating his anti-diabetic diet, and has fully tested the virtues of "gluten flour," "diabetic flour," and the common coarse flour vulgarly called "canaille," and has given the preference to the last. Not long ago he brought me a specimen of each for analysis, and I submitted them to Prof. Goodwin, of Queen's, who reported on them as follows; sugar producing material in gluten flour, 65.79; in diabetic flour, 66.24; in canaille, 65.33. In an equal given quantity of each, and thus proving the correctness of Mr. A's. experience. Of course the canaille, while it contains less sugar-forming material, may also contain less nitrogenous matter.

Mr. Norris was certainly much improved in the three weeks he remained in the hospital; but how much of his improvement was due to the bromide of arsenic I gave him, and how much to the strict regulation of diet, it is impossible to say. Mr. F., the third case noted, got well, one might say, upon a treatment in which bromide of arsenic had no place, as it was not then known as a remedy for diabetes, but his diet was regularly attended to, and kept within prescribed limits.

The case of Father S., illustrates the utter uselessness of all remedies in some cases, and

the steady march of the disease to a fatal termination in spite of the best known medical treatment, diet, foreign travel, medicated waters, etc., and in an instance of its occurrence without any discoverable cause in a person who looked to be in every other respect strong and healthy.

In the case of Mr. B., I can see no reason to question the good part played by the bromide of arsenic, but his diet and drink also were so carefully regulated, and he took in addition pilocarpine, pepsin and hcl., that I am not in a position to say that the bromide of arsenic alone would have wrought the change which already has taken place in him, but from his last letter it seems to be the chief agent. I shall certainly experiment with it entirely alone when I have opportunity, but hitherto I have been like a boy learning to swim—afraid to leave his floaters and plunge out into deep water.

Two of the cases, a male and a female, which I have in my note book, but which I have not detailed here, had slight glycosuria with polyuria, and both were quickly improved in this condition by the bromide of arsenic. I first saw favorable reports of this remedy in the *British Medical Journal* in 1883 or 1884, and in 1884 I noticed that Austin Flint, jr., had been using it with success. He insisted on a strict regulation of diet, and said then "Clemen's solution of bromide of arsenic appears to be useful," and recommended it in doses of from 3 to 5 drops, given in water three times a day after meals, and stated that it might be continued for weeks and months "without any unfavorable effects, but," he added, "the administration of this remedy does not supply the place of diabetic treatment which should be enforced in all cases." (*Canada Lancet*, Nov., 1885, page 88.) In the *British Medical Journal*, 1885, page 701, the same gentleman is reported as having said, "Diabetes has become to-day a disease easily and certainly curable, provided the treatment be not begun too late," and the treatment referred to was strict regulation of diet and Clemen's solution of bromide of arsenic.

From my limited experience I am in accord with Dr. Flint, on the importance of a regulated

dietary, and think with him that the bromide of arsenic is a valuable medicine in diabetes; but I cannot go the length of saying that I believe diabetes to be easily and certainly curable with it. Sulphide of calcium and jambol have recently been brought forward as curative agents in the disease, but I have had no experience with them. (See *Medical News*, March, 1886.) I need say nothing respecting a diet list, as every systematic work on medicine contains all that is needed. Charteris' little book, "Peppers' System of Medicine," "The Home Practical Physician," and many others give convenient and valuable lists. Milk was long a questionable article of diet, but all authorities now agree that skimmed milk is not only permissible, but is a valuable addition to the dietary. I have ventured to suggest koumiss as a drink for diabetics, from its composition as given by the manufacturers of it in Toronto.

Gentlemen, I have made no attempt to exhaust the subject of diabetes; both the opinion held concerning it, and the remedies advised for it, are almost innumerable. I have tried to bring before you some facts relating to it, and to give you my experience with certain lines of treatment. I thank you heartily for having so attentively listened to my feeble efforts, knowing that I have said, and that but very imperfectly, only a small portion of what is known about the disease. I trust, however, that I may have given a slight impetus to the more earnest study of this disease in this country, which may lead to a more perfect understanding of its pathology, and more certain methods for its prevention and cure.

SUTURE OF WIDELY DIVIDED NERVES.—Dr. Assaky presented a thesis on this subject to the Paris Biological Society. The doctor advises that the central end be joined to the peripheral end by means of catgut sutures. Excellent results follow, even if no close approximation is possible, when the loss of substance is great. Experiments show that suture promotes and hastens regeneration. The cicatrix along the track of the sutures is found richer in nerve fibre than where no sutures are used.

HINTS IN PRACTICE.

BY J. E. WHITE, M.D., TORONTO.

Read before the Huron Medical Association,
Seaforth, July 6th, 1886.

First,—as to the analogy between rheumatism and chorea. I will not enter into a discussion of the pathology of either of these diseases, but as anything in the shape of a contribution to either of them ought to be welcome in the present uncertain condition of our knowledge of both or either, I do not hesitate to present to you a fact which may possibly throw some light on them, or will, at least, be considered any moiety towards the literature of the subject, and to which I have been alive since 1877, gaining every year confirmatory evidences. In that year I had a number of cases of acute articular rheumatism among young children, and also some few cases of chorea in others. The connection between the two diseases did not attract my attention in the first case of chorea I had, which had followed an attack of rheumatism, and I put it on the usual treatment of brom. of arsenic, cit. of iron, and quinine; but when attending another case a few days afterwards, the mother's remark that the child was no sooner over one trouble than he was into another, put me on a line of thought. Could there be a cause of the chorea in the rheumatism which yet had not been eradicated from the child's system? No sooner thought than tried. I put the child on acute rheumatic treatment, with amazing results to me in the treatment of chorea, viz., an immediate subsidence of the symptoms. The other child was quickly put on the same treatment, with the same results—within a week a great alleviation of the symptoms, and quick convalescence, the choreic symptoms only lasting about the time it takes with the salicylate to subdue a recurrence of acute rheumatism. I looked upon the chorea as a nervous manifestation of the rheumatism poison, and treated it as such, with the satisfaction of seeing yield what I had always dreaded in practice—St. Vitus' dance. From that day chorea has had no terrors for me. Since then I always look at all cases of chorea with an anti-rheumatic longing, and I have been pleased beyond measure in finding that others have observed a connection between those dis-

eases, and among my confreres those who have been led by my experience to try this mode of treating these cases of chorea have met with equal satisfaction. I do not wish you to think, and I do not think you do understand me, as saying that this is the cause of all chorea; that would be an absurd statement, but I now know why I have failed in former years in giving any satisfactory benefit. My suggestion to you is this: with cases of chorea where the causation is at all doubtful, think that it may be a symptom of rheumatism attacking the nervous system, and capable of being relieved by an anti-rheumatic treatment. Try the salicylate of soda, bicarb. of potassium, and free alkaline baths. Push your doses. I don't believe the toxic doses of salicylate of soda are ever reached, in giving it in rheumatism. Give all the stomach will bear, and your results will be equally satisfactory by my own.

While on this point of rheumatism, just a few words on mineral waters. You know that familiarity begets indifference. Scores of people living within twenty miles of Niagara Falls have never seen that glorious sight, while thousands have travelled from the uttermost parts of the earth to view its grandeur. So it is with many things in medicine. Now, when you have exhausted your resources in the treatment of those stubborn cases of nondescript, ever recurring, sometimes inflammatory, sometimes non-inflammatory, rheumatic affections, that plague us month in and out, you think of Weisbaden, Karlsbad, the Spa, the south of France, the warm sulphur springs of Virginia, or an ocean voyage, or Saratoga Springs, or some other place 2,000 or 3,000 miles away, just to get rid of your patient in time, while right under our nose is a little unassuming spring kept by an old Dutchman, which, if in the hands of a live Canadian, its virtues would be known from Dan to Beersheba, or further. Down at the little Village of Preston, near Galt, there is a mineral spring which is not to be excelled in the world for its efficacy in these rheumatic diseases. I cannot say too much in its favor. When you are tired of dosing your rheumatic patients, send them there, and before you dose them much. You know that form of subacute rheumatic arthritis which follows

scarlet fever, in particular, (other fevers as well,) and how unavailing your efforts are for weeks and months, while the deformities which you see day by day get worse, and you and your physic are powerless. One case of this I had of a boy who for four months had the advantage of every skilful man's advice in Toronto, and it was unavailing. I sent him to Preston for the baths and the water; it was mid-winter, and this Dutchman didn't want any visitors then, but while there for ten days he imbibed freely and was improving nicely, when he returned home, and all the symptoms returned in a few days. I succeeded in getting the water down in bottles to the city. The day it arrived he took five or six bottles, and continued until four cases were used, and from that day to this he has never had a pain. Every trace of the disease disappeared except from his first finger joints, there the deposit had become fixed. Since then, one of our confreres in the West, who has a large practice, while spending an evening with me last summer told me of the trouble these cases were in his district. I suggested Preston water, and since then he has every reason for thinking as highly of it as I do myself.

Preston water and baths for subacute and chronic rheumatism, and convalescents after acute.

Cryptogamous biliousness, a functional disturbance of stomach, due to presence of low forms of vegetable life. You know those cases of so-called biliousness which recur every one, two, or three weeks, generally starting without much pain or symptomatic fever, have headache, supra-orbital neuralgia, vomiting copious, first frothy, yeasty-looking stuff, then watery green bile; patient laid up for one or two, seldom more, days, then gets up and goes on with his work; no prostration, very little constitutional effect, patient generally stout, healthy, a farmer, or having been brought up on a farm. The first patient I recognized with this disease was a *lumberman*. Every Sunday he had a violent attack of supra-orbital neuralgia followed by incessant vomiting for some hours; frothy, yeasty stuff, partly gelatinous. On standing, resembled frog spawn—catarrh of the stomach I called it—but the periodicity

puzzled me. He ran the gamut of all I know, but to no effect, the attacks came on regularly, and the man insisting that he was suffering from *drinking swamp water*. I tried the expectant plan of treatment, and Saturday night gave him a good purge of cal. and jalap. I was willing to fall in with his theory, and see the result of germicides; gave him acid carbohc pills and capsules of borax. These put off the attack, and the frothy contents of the stomach went downwards, per *vias naturales*; but next Sunday they came on again. I found I could not destroy the fungous growth whatever it was by this mode of treatment, though I modified it considerably. I believed the rugæ of the stomach protected sufficient of them to multiply. I then prescribed iodine water, borax largely diluted, and copious drinks to dilate the stomach to its fullest extent. This I kept up for four consecutive weeks with fair success, but what I found the best to clear the stomach was *lime water* and *calomel*; two better germicides don't exist. The so-called *black wash*, for chancres, 2 grs. cal. 4 oz lime water, and as much water as he could get down him. This, with tonics of quinine and iron took away his last symptoms of catarrh of the stomach, due as much to the effect of vomiting as to the irritation of the cryptogam. I now knew why these attacks came so periodically. It just took one week in his case for the ferment to get sufficiently large to provoke the other symptoms. Previous to the attack of vomiting his stomach would be uncomfortably swollen Friday and Saturday.

Now, gentlemen, do not many cases you have had resemble this one? In the history of them you will find swamp water has likely been drank a short time before the symptoms commenced, though some of these are of years standing. Are not some of those bilious attacks explainable in the light of this case. This man's vomit was examined, and a low form of vegetable growth was found; which I did not recognize then by any description I had seen. I have seen in a number of elderly men and women, all farmers, these symptoms, and have traced a number to what I think was the cause, and their treatment; as I have described, has always been satisfactory.

I had a case come to me two years ago from near Marquette, in Michigan, a woman, who had for three years complained of a functional derangement of her stomach associated with incessant vomiting, and great prostration. She had consulted from Chicago to New York, and without any relief. Capsules of ox. of mangan, iodoform, and boracic acid stopped her symptoms after three years of suffering, and there has been no return of them, though I recognized sarcinæ in her stomach, and expected they would return. These are said to be a sure indication of cancer, but I do not believe it is always present where they are found. They can exist in the stomach without any organic disease being present. See if some of those cases of periodical bilious attacks do not come under the category of *cryptogamous biliousness*.

Causation of asthma. You all know what a troublesome disease this is, and if the attacks are frequent, how they strain the pulmonary tissues so as to give rise to bronchitis of a chronic kind, which in turn is so susceptible to atmospheric changes that it will start irritation which starts the asthma, and thus they both perpetuate one another, like two men struggling in the water with one another, they both drown.

A young lady suffering from asthma in the city, and for whose case her medical attendant had done everything in his power, was advised to go abroad. She consulted men in New York and London, and finally in Europe somewhere put herself under a German physician celebrated in his locality. He started at the commencement of the respiratory tract, and did not hunt an inch before he located the cause of the asthma, viz., an ulceration of the nasal mucous membrane. He made applications to this place, and sent her on to a confrere in Berlin, who continued the treatment. I suppose chronic ulceration, and inflammatory thickening. *She never had an attack since.* He told his patient that a great majority of cases of asthma arose from the irritation of this unhealthy membrane, which extended down the respiratory tract, and ended in bronchitis and asthma, and that reflex nasal irritation was the usual cause. Now this was a new point

for me, and on thinking it over I found it confirmed me in the view I had held concerning some cases of asthma in infants I had seen. The cause I believed to have been dentition, and that they were reflex in their character, for as soon as the gums were lanced the symptoms of asthma disappeared. I had a family (four children I have seen through dentition,) and every one had three or four attacks of asthma, which were relieved at once (when I recognized the cause) by lancing the gums. The other three older ones, I found, had had a similar experience, but the parents were led to consider the attack croupal bronchitis, of inflammatory origin. Dr. Arnott, of London, last year read a paper before the Ontario Medical Association on diet in disease in which he pointed out that a diet of albuminoids—that is, a good roast of beef—has occasioned in certain cases, severe attacks of asthma by reflex irritation of the pneumogastric. The point I wish to emphasize is, that we too frequently look to the patient's *lungs* for the origin of asthma, and that is why our treatment so often fails.

I have been particularly asked, gentlemen, to give a few words on diphtheria. There has been a great deal written and spoken on this subject the last two years. It is one of the live questions of the day, and any one's ideas may be worthy of consideration—for the grain is with the chaff yet, and only requires the fanning-mill of practical experience to bring it out. The routine practice of diphtheria is good, sound, and safe for the milder forms of the disease, but lately we have not been having the mild form, unfortunately. I am getting to believe in the close identity of croup and diphtheria. I believe I can recognize three varieties of diphtheria—the diphtheria of the larynx, the diphtheria of the pharynx and tonsil, and the diphtheroid sore throat. One epidemic will be croupal, that is laryngeal, this is the most severe; another will be tonsillar. These, if you can keep the disease out of the rima glottis and the patient will eat, will likely get better. The third, I believe to be a purely local disease, of very little gravity, and generally occurs on adults, and a solution of sal ammoniac will clear them up in a few days. The two former are blood diseases primarily. I saw a case of

diphtheria which did not show symptoms in the throat for a week after the virus was running the temperature up to 104. I believe that local applications are very necessary, no matter what your other may be, and of all the devices of sprays, swabs, inhalers, probangs, gargles and others, nothing is so efficacious as your index finger for thoroughness and efficiency—left forefinger for left side and *vice versa*—of course your application must be in powder. My favorite one is composed of iodoform, ℥ss., borax, ℥ijss., sulphur, ℥i., pulverized acacia, ℥ij. Need not use so much iodoform. I give them glycerine to drink, spoonful doses, often; generally I give them an emetic two or three times a day, and calomel in big doses, ten to twenty grains twice daily. I was led to try this calomel treatment by Dr. Brouse, last year. He said he gave it in twenty, thirty and forty grains, and half teaspoonfuls, and found his patients alive at the next visit. What surprised me when I gave the first large doses was that little or no purgative action was perceived. In one locality there had been about twenty deaths, and when called to my first case I had reason for thinking that my confreres had been using the routine practice with no success, and so I adopted the calomel treatment, having no hope of success when others were failing if I did not branch out. I had seven cases and no deaths from the acute disease, but one child who had recovered and whom I had stopped attending, died suddenly of embolism, or cardiac paralysis, for I did not see it until after its death. Iced iodine water I think an excellent thing *ad libitum*, and attention to the proper applications locally. I lately saw several suspicious cases of laryngitis, with a death from diphtheria two weeks before the first, and a case of diphtheria following the last. It may be a coincidence, but I don't believe in them much in medicine. The question is how to diagnose a case of inflammatory laryngitis from specific laryngitis. Will there be more pain or pressure in one than the other, or will any swelling of the neck to indicate the diphtheritic variety, be present?

One word in regard to tracheotomy in diphtheria:—I believe we ought to do it in every urgent case. There is a chance—let your

patient have it—you have no right to withhold it, unless you intubate. Intubation of the larynx I have never tried, but I have a tube ready in my office ever since I read an article on it a short time ago—briefly, it consists in introducing an india-rubber tube as large as the larynx will admit down near to the bifurcation of the bronchi. I tried to rig up an india-rubber tube on the silver tracheal tube, being convinced that the swelling closed below the tube, and swabs were little use, though I tried them faithfully. With all deference I submit to you the calomel treatment—iced iodine water, digital local applications of iodine and borax and sulphur, with acacia to make them stick, and don't let a case die without a tube in it.

One day—in conversing with my venerable friend, Dr. Worthington, and tapping his store of wisdom for additional weapons to my armamentarium—I spoke of those serious cases of double pneumonia we occasionally see (though fortunately, not often), and how they slipped through our fingers into those of the undertaker in spite of our best efforts to restrain them, and I told him of an incident which occurred in 1866. One day I was going through the hospital wards with Dr. Richardson (our President this year), and saw a robust girl of 23 or 24 lying unconscious on her back, arms extended, lips livid, cheeks crimson patched, and her chest pumping with all the energy left in her. Absolute quiescence of her whole body and mind to give the whole of her vital force up to the performance of that one function of respiration. You are all familiar with the picture, double pneumonia, solid hepatisation, attempts at bronchial aeration of the blood, which soon must have but one ending. Said he, “twenty minim doses of Donovan's solution every two hours is the only thing will save her,” and walked away. I returned, watched that case, gentlemen, and she got better. The house physician had been tinkering along before this with 5 minim of tr. acon., and 5 of veratrum viride every three hours. You might as well use water in such cases—great, strong young men and women—and you see more of it in the country than in the city. For twenty years I have used Donovan's solution and pushed it, until I got resolution established, and always with gratifying results, I have

asked the doctor what his experience has been, and I find he is convinced of its efficacy.

On general surgery I have a couple of points I would like to draw your attention to if I have not tired you already.

The first is in reference to the fractures about the elbow joint, during childhood, and their mode of treatment. This is the most frequent injury, I believe, received by youngsters. The ordinary mode of treating them is by putting the arm upon an elbow-splint, and trusting to luck. The ordinary result—be the injury what it may, in the shape of fracture, or separation of any of the epiphyses, or concurrent displacement of the head of the radius—is a deformed joint, and irregular and limited motion, and the little patient is doomed to go through life with an incapable arm. There are two or three factors in these cases to which I desire to call your attention, and these, under the angle splint as used, give uniformly bad result. There are, 1st, the fibrous ankylosis, due to long retention in a flexed position, and inflammatory exudation; 2nd, the disturbed relation of the epiphyses, and a consequent check having been put on the natural development and growth of the separated parts; and 3rd, this disturbed epiphyses in a great number of cases puts the line of rotation of the head of the radius out of its position, or, in other words, in many cases of injury to the elbow, and separation of the epiphyses, the head of the radius is dislocated, and unless the parts to which it is attached be brought together, no treatment can possibly prevent a surgical deformity.

Think of the many parts entering into the composition of this joint. Recollect that for the inner condyle the ossification only commences at about 5 years, and the whole joint is more than three quarters cartilaginous until after 12 years. At 10 years the olecranon commences to ossify, and the head of the radius only at 5 or 6 years, and the others in about the same time—and you will see that any injury causing displacement of one or more of these epiphyses (fracture) will not only cause no little inflammatory action and effusion, with resultant fibrous ankylosis, but will interfere very materially with their normal growth and development, and owing to the disturbed rela-

tion of the parts you cannot tell where the head of the radius is or how to keep it in its position if you even succeed in restoring it to its place. Now the point I want to draw your attention to particularly is this—look at the olecranon process; see how beautifully it locks in between these epiphyses, giving support and strength in every direction. There is nature's splint itself, and why don't we make use of it; and how can we? Extend the arm and the olecranon locks into its place, if you flex the arm you leave these loose epiphyses to go anywhere the soft tissues and the injury received send them, and away goes the head of the radius from its proper place. Extend the arm, lock the olecranon into its socket, and you undo almost any displacement caused by the injury without further trouble, and if the displacement continues how easy—how very easy—it is to mould them on to the guide you have in the olecranon. The olecranon locks and supports all injuries to the joint, and even a fracture above the condyles, while it is in turn supported—if injured—by being locked into its proper position, forming a locked-splint—a neater one could not be devised by any but an Almighty hand—safe from distortion, safe from *effusion within the olecranon-fossa*; which, mark me, I contend is the cause why those cases treated by flexed methods never fully extend, and it is the best guarantee of a useful arm. Now, you will say that is all very well—keep the arm on a straight splint and you get a straight arm. What about flexion? Your coronoid fossa is filled up and so is the fossa for the head of the radius, and you cannot get perfect flexion. Yes, you can, for you do not leave it so long extended that the deposit of exuded material cannot be squeezed out when you commence your flexion. Put the arm on a straight splint, then see that the parts are in their proper position, if not, mould them to it—mould is the proper word, for they are not bone yet; even if they are, what better guide can you have to their true position than the olecranon in its fossa. Put 5 or 6 coils of half inch rubber tubing around the elbow and run a continuous current of salt water until all the inflammatory action has subsided; give cooling febrifuge mixtures; elevate the arm; then, in

about ten days begin to flex the arm gently—very gently at first—with your hand supporting the elbow, only a few degrees at first (let the patient come to your office morning and evening), a little more the next time, and so on, putting it back on the straight splint every night; if much heat develops put on the coil each night. After a few days get a good angle splint with an arm like on a carpenter's compass, with a thumb screw to regulate the flexion and extension at your pleasure, more and more complete flexion each day, for three weeks or so, making the boy *assist* in both flexion and extension. Even at 5 or 6 weeks he has not got a complete return of his muscular control, and this has to be kept alive by his own exertions. Now, if you do not superintend this most important part of the treatment yourself, you need not expect very satisfactory results. Left to themselves and parents means dissatisfaction all round after a time, and the man who cares for his reputation and the welfare of the little one placed in his charge, will not lose sight of him for two good months; and even then give him pails of sand to carry for extension, and bundles or bags over his shoulder for flexion. With much confidence I submit this is the best mode of treatment for these cases. I am supported in it by such as Sir Astley Cooper. Don't forget the olecranon lock, and the rubber tubing is your best friend. Extended you can mould the injured parts to their place; flexed you never can.

I desire briefly to bring to your notice the so-called "Gelatine Bandage." As a substitute for those greasy abominations—ointments—in all kinds of skin disease where you desire to see the parts affected, and still cover it from the air or protect it from the touch of the clothes, and yet have it easily removed, the gelatine bandage is vastly in advance of the ointment. *They* (the ointments) are dirty; they stain the clothes; they cannot be permanently applied without bandages, even then the cloth will absorb them; they are hard to wash off, and there are many other objections to their use. Now, to meet all these objections I submit the gelatine bandage as used in Prague with so much success. It is not a bandage, it

consists of pure gelatine to twice as much distilled water; after heating it add whatever you wish—chrysarobin, oxide of zinc, carbolic acid, salicylic, boracic, iodoform—whatever you wish—then apply with brush (I use my finger) and as it is drying run your finger over it with glycerine, a thin coating to keep it from cracking. It is splendid for psoriasis, and completely hides the stains of chrysophanic acid.

A slight modification of this has long been used for burns and scalds and fresh injuries in New York hospitals—White glue, $\frac{1}{2}$ lb., glycerine, $\frac{3}{4}$ j, carbolic acid, $\frac{3}{4}$ j, and boiling water, $\frac{1}{2}$ j. Keep in close capped jar and heat the quantity you require ready in your office and you will find it a most excellent application. It is a decided improvement on the abominable linseed oil and lime water. Time does not permit me to go thoroughly into the uses of this gelatine bandage, or I am sure you would think it advantageous to anything you have heretofore used in its particular range of application.

THE VIENNA LYING-IN-HOSPITAL.

BY JUNIUS C. HOAG, PH.M., M.D. CHICAGO.

In the imperial city of Vienna, where statues and monuments are so freely raised by grateful hands to commemorate the achievements of noble minds, one may look in vain for the smallest memorial of a man whose recollection might well be cherished, not alone by Vienna, nor yet by Austria, but by all the world; for wherever woman is beset by the perils of childbirth, the benignant influence of his labors is potent to dispel them. This man was Ignaz Semmelweis, who, after a career varied by many vicissitudes, died within the walls of the Insane Asylum of Vienna.

In the Lying-in Hospital of Vienna, from 1784-1822, the records show an average mortality of 1.25 per cent. During 25 years of this period the annual mortality was less than 1 per cent.; but after the addition of a department of anatomy the mortality rose rapidly until it reached 5.3 per cent. About this time the Lying-in Hospital was divided into two clinics, in one of which medical students practiced,

while the other was exclusively reserved for the instruction of midwives.

In the first clinic the mortality soon rose to 9.92 per cent., while in the second, although there was a greater crowding of patients, the mortality was not greater than 3.38 per cent. The reason for this startling discrepancy was soon discovered by Semmelweis. A clinical assistant having received a dissection wound died of pyæmia, and the findings at the autopsy were observed by Semmelweis to be quite parallel with the pathological conditions found after death from puerperal fever. Many additional facts bearing on the ætiology of puerperal fever were forcibly impressed upon Semmelweis' mind. He observed that the longer a patient was in labor, and the oftener she was examined, the more liable she became to infection. Again, he observed that an accession to puerperal processes took place during the winter session when the students were busy combining the pursuits of anatomy and obstetrics.

In 1847, Semmelweis began to teach that puerperal fever was a resorption fever engendered by the products of animal decomposition which found entrance to the general system through wounds in the genital tract, and to him is due all praise for having been the first to point out this notable fact. After making these important observations Semmelweis inaugurated a most rational and successful system of prophylaxis, which included comprehensive measures with regard to cleanliness on the part of patients, nurses, students and physicians, including the careful cleansing and disinfection of the hands with chlorinated lime. The most brilliant results quickly ensued, for in the following year, 1848, the mortality in the first clinic sank to 1.27 per cent., and in the clinic for midwives to 1.33 per cent.

To realize the importance of such a work it is only necessary to compare the results in other large European hospitals as well as the statistics of private practice. Boehm, for instance, is authority for the statement that since 1816 more women have died of puerperal fever than of smallpox and cholera together, while Duncan adds that this enormous fatality is not the result of epidemics as is the case with the last two diseases.

The obstetrical patients of the hospital are equally divided among three clinics, the first and second of which are open to students and physicians; while the third, under the direction of Prof. Gustav Braun, is exclusively for the training of midwives. The first clinic is under the management of Prof. Carl Braun, and the second under Prof. Breisky, who will shortly arrive from Prague to succeed Prof. Spaeth, who has recently resigned, after long and honorable service. The first and second clinics are so much alike that a description of the procedures of the first will answer for both, with a few exceptions, which will be pointed out.

The patients are all confined in one large ward, with the exception of such as have high temperature before labor—these are put on separate beds in an adjoining room, where they are carefully watched. The main ward is a large, well-ventilated room, with windows and ventilators on both sides. The beds are the simplest and best possible, consisting of a light iron framework supporting an ordinary so-called woven wire mattress, which is also of iron, but is overlaid with copper and painted. The head and foot pieces are so arranged as to fold underneath to facilitate transportation. Resting on the wire there is a folded blanket; then comes a rubber blanket, a sheet, and a draw-sheet. The sheets are of linen, and are lavishly used in order to secure the utmost cleanliness.

Immediately after the completion of the third stage of labor, the vagina is washed out with a 2 per cent. solution of carbolic acid, after which the patient lies quietly for a few hours, when she is transferred to another ward at some distance from the confinement room. For purposes of disinfection the following solutions are employed:—1st. Carbolic acid, 2 per cent.; 2nd. Thymol, in the proportion of 1 part to 1000 parts of water; 3rd. Corrosive sublimate in the proportion of 1 part to 4,000 or occasionally 5,000 parts of water.

As already intimated, the carbolic acid solution is employed in the form of a vaginal douche, which is given as a routine practice in the first clinic, but not in the second where the vaginal douche is not used at all unless specially indicated. Thymol is used when a prolonged douche is deemed advisable, and in the above

solution it may be used *ad libitum*. The sublimate solution is reserved mainly for disinfection after operative procedures, but it is regarded with a certain amount of distrust, as one or two deaths, which occurred some time ago on the clinic, were attributed to its too free use.

Prof. Gustave Braun has also conducted some experiments which seem to prove its unreliability, especially when it is used shortly after delivery. Braun found that very uniformly after copious douching with the solution, the bichloride could be detected within 24 hours in the alvine discharges. Accordingly it is now seldom used in puerperal cases.

With regard to operative measures there is much to interest the observer. In this connection one is struck by the infrequency with which the forceps is employed, and this holds true in both the first and second clinics. Episiotomy is freely performed both in instrumental and non-instrumental cases, and is very often made on both sides of the vulva. All fissures and lacerations in the genital tract are promptly closed with the silk suture, and with very excellent results. After the insertion of the sutures, iodoform is freely dusted over the parts, and iodoform pencils are often placed in the vagina as well. The latter vary in size, the largest weighing as much as five grammes.

The cervix is not examined unless attention is directed to its condition by some considerable amount of hemorrhage, in which case the patient is placed in the Sims' position, the cervix is drawn down with vulsellum forceps, and the laceration closed with silk sutures.

With regard to the condition of the hands of the operator or examiner, the greatest precautions are, of course, exercised, but the mode of disinfection is not quite the same in the various clinics. In the first clinic the hands are first carefully scrubbed with soap, and the two per cent. solution of carbolic acid, after which they are dipped, first in a 1 in 1,000 solution of permanganate of potassium, then in a 10 per cent. solution of hydrochloric acid, and finally rinsed in the carbolic acid solution. This is the usual procedure, and must be performed immediately preceding each examination of the patient. In special cases, however, where it becomes necessary to exercise additional care,

a further cleansing of the hands with the sublimate solution takes place. In the second clinic only the sublimate solution and soap are used, while the permanganate of potassium and hydrochloric acid solutions are omitted. Finger rings must always be removed, and the finger-nails must be well pared.

As regards the treatment of puerperal fever, some very interesting points may be noted. Very little reliance is placed in the use of medicines, but quinine is not wholly abandoned, while alcohol is generally employed in moderate doses. *Antipyrine et omne genus* has been banished quite. The treatment upon which the greatest reliance, however, is placed, is the removal, by mechanical means, of the *materies morbi*, which is accomplished by the use of the douche and the blunt curette.

The curette is now in great vogue in the first clinic, where it has been extensively employed *post partum* during the last six months. In the second clinic it has not yet been much used. A moderate elevation of temperature is regarded as an indication for the use of the douche, which, however, is seldom employed oftener than once a day. The curette comes into use when the temperature remains high for two or three days, although here and there it is employed even on the day of confinement, especially in cases where there is an elevation of temperature *ante partum*. As large a curette as possible is introduced into the uterus, the one generally employed having a diameter of about two centimetres. With this instrument the entire endometrium is vigorously scraped, (in spite of the lamentations of the patient) and apparently with the most brilliant results.

The writer has carefully followed the history of many patients subjected to this treatment, and has not yet seen a case which did not improve after a *timely* operation of this character. As a rule the patient's temperature falls markedly on the day of operation, while it is not at all unusual for it to drop to normal within 24 hours, and continue normal throughout the lying-in period. A decline of temperature from 40°C. to 37.5°C. in a single day is very commonly observed.

In round numbers about 9,000 patients per annum are cared for in this hospital. To ex-

hibit in a general way the character and extent of the work in the various clinics of the hospital, the writer quotes the following summary which he has transferred directly from the protocol of the second clinic for the year 1885:—

Total number of births	2,761
Total number of deaths.....	24
Total number of deaths from septic causes	16

This gives a total mortality of about 0.87 per cent; and a total mortality from sepsis of about 0.57 per cent.

The following operations were performed:—

Extraction	89
Forceps	77
Version	39
Craniotomy	19
Decapitation	1
Removal of fragments of placenta and membranes	50
Reposition of cord.....	9

The following were the complications met:—

Premature rupture of the membranes	116
Feeble labor pains	75
Narrow pelvis.....	81
Eclampsia	10
Tetanus uteri.....	5
Hemorrhage	60
Prolapse of cord or hand	30

Of these 2,761 patients, 1,266 were primiparæ and 1,495 were multiparæ.

The presentations of the child were as follows:—

Cranium	2,640
Face.....	20
Breech.....	55
Foot.....	17
Transverse	29
2,761	

Before passing judgment on this record it is only fair to bear in mind some of the factors which exert an unfavorable influence on the hospital statistics, and these the writer has hastily summarized as follows:—

1st. The low physical condition which prevails among the poor

2nd. The great prevalence in Austria of deformed pelves as the result of rachitis and osteomalacia.

3rd. The numerous cases which are received after unsuccessful treatment on the part of physicians and midwives outside of the hospital.

4th. The repeated examinations which the patients undergo at the hands of physicians and students.

5th. The reception of many patients who, on account of previous difficult labors, betake themselves to the hospital only because they are assured of the most skilful attendance there.

Selections.

[We are indebted to DR. ZIMMERMAN for the translations from the French and many of the therapeutic notes, and to DR. R. B. NEVILL for the Italian translations.]—ED.

THE TREATMENT OF WHOOPING-COUGH.

Whooping-cough is ordinarily regarded as a very troublesome disease, and one whose duration is seldom materially influenced by treatment. But if we can rely upon various reports which have recently appeared in the current literature, these views must be modified very considerably. We propose to review, briefly, a few of these different methods which have been so highly commended by their originator, leaving it to our readers to try one or more of them as they see fit.

Dr. Kohlmetz writes in the *Deutsche Medicinal-Zeitung* of June 14, 1886, that an epidemic of whooping-cough in his neighborhood has given him an opportunity to try many of the new methods, but he has found only one to give good results. He uses a solution of quinine, four parts, dilute sulphuric acid, two parts, and distilled water, two hundred parts. He fills a glass syringe (size not stated) with this solution, and injects it forcibly against the posterior wall of the pharynx, the mouth being held open and the tongue, if necessary, depressed with a spatula. Some of the solution may be spattered into the larynx, but the greater part is either swallowed or spit out, and it is diffi-

cult to account for the excellent results which the author claims to have obtained. The application is made every two hours during the first three days, and every three hours after this time, and a cure, or a very marked improvement, is obtained from three to eight days.

In the *Centralblatt für klinische Medicin*, of June 12th, 1886, Dr. J. Bachem speaks very highly of insufflations of quinine into the nostrils. He employs muriate of quinine, three parts, rubbed up with gum acacia one part, and blows about three grains of the mixture into each nostril once or twice in the twenty-four hours. In a child who has been coughing for two weeks, having from ten to twelve attacks during the day, and six to eight at night, at the end of a few days the attacks were reduced to four or five in the twenty-four hours, and a cure was obtained in three weeks. Other cases are cited in which the results were almost equally favorable. An acorn-shaped tip is attached to the insufflator, in order to ensure the delivery of the powder and to prevent any loss.

We find in *El Sentido Catolico en las Ciencias Medicas*, of June 12, 1886, a reference from some other journal of the results obtained by Dr. Michael by nasal insufflations of various powders. He employed quinine, pure or mixed with benzoic acid in the proportion of one part to three; tannic acid, boracic acid, salicylic acid, iodoform, cocaine, bicarbonate of soda, and marble-dust. Of these substances good results were obtained only with quinine, benzoic acid, tannic acid, and marble-dust. The success obtained with the last-named powder would seem to imply that the curative value of insufflation is largely dependent upon mechanical causes. In eight cases a cure was obtained in three days; in six cases, in eight days; and in six other cases a marked diminution in the severity of the symptoms was observed, though the duration of the disease was not apparently influenced.

At a recent meeting of the Société Médico-Pratique of Paris (*Concours Medical*, June 12, 1886) Dr. P. Guerder stated that he had also had excellent results from nasal insufflations. He had tried benzoic acid, as used by Dr. Michael, but had been more success-

ful with a fine powder of equal parts of boracic acid and roasted coffee. In recent cases he was able to obtain a radical cure in from eight to fifteen days, and even after the disease had become firmly established the number of attacks was reduced, after from two to six days of treatment, from fifteen or twenty to four or five in the twenty-four hours, and a like improvement was noted in the other symptoms. The insufflations were practised morning and evening.

In the fasciculus for June, 1886, of the *Rivista Clinica de Terapeutica*, appears a communication from Dr. P. Sertoli, in which inhalations of iodoform and oil of turpentine are recommended very warmly for the cure of pertussis. The writer states that he found the number of the attacks to be lessened and their severity to be diminished soon after the inhalations were begun, and the duration of the disease was also shortened, a complete cure being obtained within less than twenty days.

We have previously referred to the results obtained by Dr. Moncorvo, of Brazil, with resorcine, and very recently also to the success claimed from the employment of narceine by M. Laborde and others. These are by no means all the methods which have been brought to the notice of the profession with the endorsement of their advocates, but they will suffice to show either that pertussis is far from being the intractable disease which it has hitherto been supposed to be, or else that it is very variable in its duration and course, sometimes subsiding spontaneously whatever form of treatment be adopted.—*N. Y. Med. Record*.

TREATMENT OF RHUS-POISONING.

A timely article upon the treatment of rhus-poisoning appears in a recent issue of the *Journal of Cutaneous and Venereal Diseases*. The poisonous principle of *Rhus toxicodendron* (poison-oak) and of *Rhus venenata* (poison-ivy) resides in a volatile acid known as toxicodendric acid. The disease resulting is known technically as dermatitis venenata. It is a curious fact that this poison is utterly inert with many persons, and consequently, for the production

of the dermatitis there must be some individual predisposition. So far as we can learn, dermatologists have not yet learned what makes up this curious and unfortunate predisposition. The plant is more active apparently in the spring and fall, and according to some authorities California is particularly rich in it. Even in standard works, there is a singular confusion as to the two plants which give rise to the toxicodendric acid. The poison-oak, or *Rhus toxicodendron*, is a rare plant, while the poison-ivy, or *Rhus venenata*, is comparatively common. Webster's Dictionary is incorrect on this point.

The disease which the poison produces is a dermatitis which runs a natural course of from one to six weeks, averaging perhaps two weeks. Its occasional very mild and brief course has led to the announcement of many specifics for rhus-poisoning. Specifics, however, do not in reality exist, and the most that can be done is to palliate the symptoms, and perhaps shorten the period of the inflammation.

The remedies most highly recommended by the editor of the *Journal* are the following: \mathcal{R} . Sodii hyposulphitis, \mathfrak{z} j.; glycerinæ, \mathfrak{z} ss.; aq., ad \mathfrak{z} vij. \mathfrak{M} . Apply with compresses frequently renewed. When lotions cannot be continuously used the following powder is freely applied: \mathcal{R} . Pulv. zinci oxid., \mathfrak{z} ij.; bismuth. subnitrat., \mathfrak{z} j.; amyli, \mathfrak{z} v. \mathfrak{M} . In later stages the following ointment may be given: \mathcal{R} . Pulv. zinci oxid., amyli, $\mathfrak{a}\mathfrak{a}$ \mathfrak{z} ij.; vaseline, \mathfrak{z} iv. \mathfrak{M} .

Another treatment highly recommended is the frequent application of black wash, followed at night by the following ointment: \mathcal{R} . Acid. carbolic., gr. x-xx.; ung. aq. rosæ, \mathfrak{z} j.; hydrarg. chlorid. mite, gr. x. \mathfrak{M} .

Both Dr. Hardaway, of St. Louis, and Dr. Van Harlingen, of Philadelphia, recommend highly a solution of sulphate of zinc, gr. ij. to O j. A mixture of fluid extract of grindelia robusta, \mathfrak{z} ij. to \mathfrak{z} j. of water is said to be very effective. Cloths are to be wetted with this, and then kept on the parts until they are nearly dry. Grindelia is generally believed to be the most efficient of the vegetable remedies, although Dr. Hyde, of Chicago, speaks enthusiastically of an ointment made by incorporating a decoction of the inner bark of the

American spice-bush (*Benzoin odoriferus*) with cold cream.

A writer in the *Philadelphia Medical Times* has recently recommended a saturated solution of oxalic acid painted on the part. No internal treatment seems to be indicated, unless it be a laxative.

It has been shown that if two persons are poisoned by the same plant, and treated in the same way, the inflammation in one case may subside rapidly, while in the other it may run a long course. This is a sufficient comment on all ordinary claims for specifics.—*N. Y. Med. Journal.*

SUPERFICIAL PHLEBITIS AND CEREBRAL THROMBOSIS.

M. Paul Raymond reported the following interesting case to the Paris Anatomical Society: A woman, aged 40, was admitted into the Hotel Dieu with exophthalmia on the left side. There was chemosis and complete amaurosis of the left eye, the movements of the globe being abolished. Virulent pains in the orbit radiating to the temporal region, chills and fever were complained of and the urine was albuminous. Palpebral oedema commenced, it soon extended over the left side of the face. Two days later, chemosis appeared in the left eye, then exophthalmia and immobilization of the globe. The woman died comatose, with high fever, and at the post mortem a limited caries of the quadrilateral plate of the sphenoid, causing suppurative meningitis of the base, was discovered. The cavernous sinus on the left side was the seat of a putriliginous deposit; the right sinus was obliterated by thrombosis that had started in the left sinus and extended by the coronary sinus. The pituitary gland was reduced to a nauseating thick fluid. It was impossible to find the cause of this so limited caries of the sphenoid. These cases of thrombosis of the ophthalmic veins and of the cavernous sinuses are rare; only a few are recorded, among which that of M. Panas has many analogies with this one. A man was attacked with double exophthalmia, coming on rapidly with intense reactional symptoms after phlegmonous angina. At the autopsy suppurative meningitis of the base, with purulent clots in the ophthalmic veins were discovered.

There was in addition commencing osteitis of the greater wing of the sphenoid and of the sella turcica. M. Panas admits that the phlebitis must have extended from the veins of the tonsils and of the velum palati into the ophthalmic vein by the anastomoses of the latter with the sphenopalatine vein, described by Gurevitch. In a recent work, M. de Lapersonne cites an observation of M. Duplay, in which the same accidents of thrombosis of the cavernous sinuses followed an ulcerating coryza. We should know, then, whether if phlebitis of the cranial sinuses can be produced by inflammations of the face, such as erysipelas, boils, carbuncles, these same accidents can result from a deeper inflammation of the pharyngeal or nasal cavities. In these cases, again, suppurative and infectious inflammation can be transmitted by the venous system to meninges at the base and death soon follows. There is, then, a point of pathogeny of importance: Along with those cases in which a primary osseous lesion of the base of the cranium, syphilitic or tubercular for example, can determine inflammation in the sinuses, there are, on the other hand, cases in which this lesion of the bones is secondary, simply an epiphenomenon in the course of accidents in quite another manner very serious, which commence by phlebitis of the superficial veins, and obtain to a meningitis. The observation of M. Raymond seems to depend upon the above-mentioned facts. In the woman who had no diathesis, in whom we were able to discover no cause of osseous suppuration, an inflammation of the nasal or pharyngeal cavities, mild enough to be unnoticed, was sufficient as a starting point of the trouble. It is often the case that disorders apparently most trifling are followed by the most terrible consequences.—*Le Progrès Medical.*

POST-PARTUM HEMORRHAGE.—Dr. A. Walker, in the *British Medical Journal*: "In a number of cases, strychnine administered along with iron for a month before labor has exerted a remarkable influence in preventing post-partum hemorrhage, where severe flooding has occurred in previous labor."

NEURALGIA OF THE BREAST.

This disease, of some practical importance, was known to Astley Cooper under the name of *irritable breast*. Terrillon describes three groups of cases. In the first are found women with full, turgid breasts, unmarried, or married very young, rich in blood, who complain of violent pains coming on in spells, in one breast especially, at the menstrual epoch. The painful breast is sometimes larger and harder than the other, and palpation elicits pain, at the same time revealing certain points sensitive to pressure, which are situated in part in the breast itself, and in part in the immediately surrounding tissues.

In the second group the patients offer a breast full yet not so pendant, are mature women who do not wear stays, or wear them badly applied.

In a third group the women are thin, and the glandular lobules are protuberant between the skin and the thorax.

Again, at the time of menstruation, the glands are swollen, and on palpation reveal the painful points. At the examination the principal question is as to the existence of a tumor. To prevent deception by a gland which may be harder and larger than the other, it is useful not to take the breast in the full hand, but by spreading it out on the thorax palpate it with the point of the finger. It is only, indeed, in certain cases of mammary neuralgia that small tumors are found. These are seldom true neuromata, but more generally are fibromata or myxomata. After removal of the tumors, especially those sensible to pressure, the pain sometimes disappears, but sometimes, in spite of removal, it continues.

The course of this lesion is ordinarily slow, and shows no tendency to spontaneous cessation. Wounds have been considered as causes; pressure from ill-fitting clothes, as in laceration of a heavy, pendant breast, insufficiently supported. General nervous debility gives the necessary preliminary condition.

The distinction from malignant tumors is, for the most part, easy, except when small tumors are found. The carcinomata, as a rule, in the beginning do not give rise to violent

pains, and produce after a time swelling of the lymphatic glands. If this should be wanting, and neuralgia exist, a diagnosis of neurofibroma would be justified. Intercostal neuralgia is distinguished by the fact that the pains occupy the intercostal spaces, and perhaps in the axillary line, and along the vertebral column the painful points of Valleix will be met with. Compression of the breast, for the most part, helps it. A cushion of wadding may be placed firmly against the breast and tightly kept in place by a flannel bandage, which should be renewed every three or four days. Usually three weeks suffice for a cure. Sometimes a well made corset is sufficient, or a suspensory apparatus of flannel or silk. Sometimes cutaneous irritants have been shown to be of advantage. If tumors are present they should be removed with the knife. Quinine and arsenic should not be neglected, and in rheumatic cases the salicylate of soda.—*Rev. Clin.*

Therapeutical Notes.

Dr. Gross recommends diluted vinegar as an injection into the bladder to break up blood-clots.

IVY POISONING.—Dr. McBride, in *Philadelphia Medical Times*, recommends the application of a saturated solution of oxalic acid.

DIABETIC PRURITUS.—Mr. Lawson Tait speaks highly of the unguent potassæ sulphuratæ for vulvar pruritus, due to diabetes.

Biniodide of mercury is insoluble in vaseline, but dissolves in 200 parts of lard, or 50 parts of castor oil—a fact to be remembered when prescribing it for inunction.

Convulsions may be frequently cut short like magic by turning the patient on his left side. Nausea, after ether or chloroform, may generally be controlled in the same manner.

Tenesmus of dysentery, or diarrhœa, or the vesical tenesmus of cystitis, may be very much relieved by placing a pillow under the buttocks, and making the patient lie upon his back.

ARTHRITIS DEFORMANS.—Dr. Karl Von Ruck regards arsenic as the best remedy for arthritides deformans. It must be persevered in for months, with occasional intermissions.

Cod-liver oil may be given to infants by the nurse dipping the end of her finger in the oil, and putting it into the child's mouth. This may be repeated five or six times during the twenty-four hours.

BOLDO.—The tincture, wine and alkaloid boldine have been experimented with. It is a powerful narcotic without disagreeable results. Two grammes of boldo induced sound natural-like sleep in a patient at the St. Anne Insane Hospital.

VERMIFUGE.—Santonate of calcium is preferred to santonin by E. Bombelon (St. Petersburg) as a vermifuge. It is a tasteless powder, almost insoluble in water; is said to be more efficient than santonin, and less apt to be vomited.

VESICAL IRRITATION.—Dr. W. P. Copeland recommends highly warm injection of benzoate of soda, 10 grains to the ounce, with 20 to 30 drops of green tincture of gelsemin, in cases of vesical irritation whenever the pain is very severe.

Permanganate of potash in strong solution is recommended by Dr. C. N. Fenn, in cases of carbuncle. He expresses a portion of the contents through the cribriform openings and replaces with the permanganate by means of a grooved director or hypodermically.

TAPE-WORM:—

R. Chloroform ℥i.
Oleo-res., filicis maris ℥i.
Ol. tigllii ℥i.
Aq. camph. ℥ii.
Gum acaciæ q. s.

CREASOTE A SPECIFIC FOR ERYSIPELAS.—Six to twenty drops of creasote to an ounce of water is regarded by a contributor to the *St. Louis Medical Journal* as a specific for erysipelas. He applies it on clothes soaked in the solution,

and says that in the treatment of hundreds of cases but one was fatal, and that in an old and depraved system.

GONORRHOICAL RHEUMATISM.—Bartholow uses small blisters about, but not over, the joint. He derives the best results from the use of tincture of iron internally. The green iodide of mercury, one-twentieth to one-twelfth of a grain thrice daily with the sixth to a quarter of a grain of belladonna or minute doses of the bichloride with iron and blisters are useful.

RHUS POISONING:—

R. Borax pulv. ℥ii.
Acid carbol. ℥i.
Morph. sulph. gr. x.
Pulv. acaciæ ℥iv.
Aq. q. s. ad. ℥viii.

M. Agitate till a solution is formed. Use with a camel-hair brush.

THRUSH, OR SORE MOUTH OF INFANTS.—Is often due to the rough and careless swabbing out of the mouth of the child by the nurse, who uses the corner of a coarse towel, and proceeds as if she were scrubbing the kitchen floor or back stairs. In Prague, since Obstein has forbidden the washing of the mouths of infants born under his care, stomatitis has almost disappeared from the lying-in, whereas, previously 52 per cent. of the infants born there, and under ten days old, were afflicted.

TO PREPARE COW'S MILK FOR YOUNG INFANTS.—(Keating).—To a four ounce mixture composed of one ounce of ordinary milk and three ounces of water, add one ounce of ordinary cream and about eighty grains of sugar of milk (a level teaspoonful and a-half). This closely resembles woman's milk, though containing less casein and more sugar than most authorities give as the result of their investigation. Still, for very young infants this is an advantage rather than otherwise.

WHOOPING COUGH.—The editor of the *Provincial Medical Journal* reports the following: "We had nine children suffering from pertussis in the Nursery, Halifax Union; we connected

a piece of gas tubing with the gas burner, and turned the gas on, and each child was brought sufficiently near so that the gas might be inhaled. We repeated this for some days, and can report most favorably on the results. The intensity of the paroxysms was diminished, and the duration of the disease cut short. The infants recovered without any complications.

GONORRHOEA.—Dr. Alexander V. Khrul, of Irkutsk, has for two years successfully treated gonorrhœa with an ointment of iodoform, one part, and vaseline, ten parts, somewhat liquified by heating, and then aspirated by suction into a fine elastic catheter, the latter being anointed externally with the same ointment, and introduced to the depth desired. The ointment is blown out by the operator's or patient's mouth. The painful phenomena of the acute stage disappear in 24 hours. This method is especially indicated in persons with irritable urethra and kidneys.—*London Medical Record.*

NAPHTHALINE INTERNALLY.—Sniatkoff finds naphthaline a good antiseptic and antifermentative for the gastro-intestinal tract, in the absence of tubercular or typhoid ulcerations. In dyspepsia, the symptoms due to decomposition are arrested. The diarrhœa of acute gastro-enteritis is soon checked, also infantile summer diarrhœa. In chronic gastro-enteritis in adults, nausea, distension, eructations and heartburn are relieved. Severe dysentery was cured in five to ten days under doses of ten grains, each of naphthaline and subnitrate of bismuth four times a day.

POTASSIUM CHLORIDE.—At the last meeting of the American Medical Association, Dr. A. F. Pattee, of Boston, read a paper on the therapeutics of potassium chloride. He has used it successfully in anæmia after other remedies had failed. In the first stage of alcoholic cirrhosis it is beneficial. Inflammatory exudation, especially pelvic cellulitis, rapidly disappears. In ovarian neuralgia and menstrual headache he prefers it to bromides. It is useful in syphilis combined with bichloride of mercury. Tincture of iron is rendered more effective. He gives 10 grain doses every three hours in cellulitis.

RINGWORM.—Dr. Leftwich, in the *London Lancet*, recommends the following treatment as efficient, and preventing infection. Cut the hair close all round the patch, and paint with an alcoholic solution of iodide of mercury, obtained by adding calomel to tincture of iodine, and using the supernatant colorless fluid. As soon as the slight soreness ceases apply an iodine plaster, obtained from a formula in Beasley's book: an ounce of plaster containing half a drachm of solid iodine. This is spread on kid and carefully applied, overlapping all round. At the end of a fortnight it may be removed, and the ringworm will be found practically cured. To make sure, the treatment may be repeated for another fortnight.

BICHLORIDE OF MERCURY AND TINCTURE OF BELLADONNA IN MEMBRANOUS CROUP.—Dr. J. H. Jones writes as follows to the *New York Medical Journal*: I have for some years been in the habit of treating this disease with a combination of corrosive sublimate and belladonna. These drugs are recommended for this complaint in almost every work on therapeutics, but I am not aware that they have ever been given conjointly. I have found that small doses of the bichloride (one-fiftieth of a grain), administered in conjunction with tincture of belladonna (two to five minims), every half hour for a child two years old, is a very successful method of dealing with this dangerous disease of childhood. The secret of its success is in its persistent administration, even when the symptoms are apparently most unfavorable. I have several times witnessed a happy termination to the disease when other practitioners with whom I was associated entertained scarcely a hope of recovery. It is advisable to commence the treatment by administering an emetic, so as to dislodge the already formed membrane. Probably much of the benefit derived from this mixed treatment is due to belladonna, and it is astonishing what large doses of this drug children can tolerate. During the progress of the disease the strength must be maintained by a liberally nutritious diet and stimulants, for I must say that when recovery takes place the patient is left very anæmic and weak. This is not very apparent while the medicine is being given, as every evidence of it is partially masked by the physiological effects of the belladonna.

THE
Canadian Practitioner.

(FORMERLY JOURNAL OF MEDICAL SCIENCE.)

TO SUBSCRIBERS.—*Those in arrears are requested to send dues to Dr. Adam Wright, 20 Gerrard St. East.*

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial Medical Associations will oblige by forwarding reports of the proceedings of their Associations.*

TORONTO, OCTOBER, 1886.

CRANIOTOMY.

Craniotomy is one of the oldest of surgical operations, and while it is, under any circumstances, exceedingly unpleasant, it becomes repulsive and horrible in the extreme when performed on the living child. At one time it was so common in Great Britain as to become a serious reproach to British midwifery. At the same period in France, chiefly through the influence of the Church, it was bitterly denounced, and scarcely ever performed.

At the recent meeting of the British Medical Association, Dr. Meadows, in his opening address before the section of obstetric medicine, expressed the hope that a new law would be promulgated which would put a stop to this method of slaying innocent life. Among the interesting papers presented was one by Robert Barnes: on "The Alternatives to Craniotomy." In the discussion that followed the general feeling was in favor of some of the alternatives. It was shown that deformities of the pelvis which require craniotomy might be prevented to a great extent by hygienic and anti-syphilitic precautions. After hygiene we have the induction of labor which, in some cases, is very satisfactory after the viability of the child, being frequently facilitated by turning. When the child has reached full term in a pelvis so much contracted as to prevent delivery, the alternative to craniotomy is some form of abdominal section.

It is generally, though not universally, conceded in this country that the interests of the mother should be considered rather than those of the unborn child. With a case before us, it becomes a serious question to decide whether

Cæsarean section or any of its sister operations is as safe as embryotomy. It is said that for one hundred years no successful Cæsarean section was performed in the Vienna or Paris hospitals. With such a discouraging record it is hardly surprising that British obstetricians looked on it with disfavor. The Cæsarean operation was, however, too often deferred until the cases had become hopeless, and it has been shown by Harris that the rate of mortality under favorable circumstances is comparatively low—i.e., about 25 per cent.

The methods of operating have lately been so much improved by Sanger and others that it has become far less formidable. Sanger operates early to avoid the effects of shock; prevents hæmorrhage, chiefly by the elastic ligature enclosing the cervix, and avoids other dangers by his method of closing the uterine wound. His plan is to dissect the peritoneum free from the muscular edges; cut away a slice of this tissue on each side (although this is said by some to be unnecessary); turn in the free edges of the peritoneum; unite the surfaces by deep and superficial sutures in such a way as to close effectually the wound and, at the same time, bring two layers of peritoneum in contact.

In Porro's modification the uterus, after being emptied, is amputated at the cervix. In Thomas' modification, called gastro-elytrotomy, the os is fully dilated; an incision is made above and parallel to Poupart's ligament; the peritoneum is pushed up, an opening is made into the vagina, the cervix is drawn up through this opening, and the child is extracted by the hand.

In considering the risks attending these operations it must be remembered that craniotomy itself is attended with grave danger to the mother. Lawson Tait strongly favors Porro's operation. Other surgeons have their choice among the three, and it is somewhat difficult to settle their rival claims to superiority. Lusk, however, points out that they are not rival methods, but clearly fulfil different indications. He chooses the Cæsarean section for favorable cases taken early; Porro's for cases in which the uterus is exhausted, and laparo-elytrotomy where the head is at the brim, with the uterus retracted above it.

Upon the whole, we think that the prospects for conservative surgery in such cases—in the interests of both mother and child—were never brighter than at present. May we not, therefore, hope that, with the wonderful advancement which is now being made in this department of surgery, it will soon be demonstrated beyond a doubt that Cæsarean section, or some of its modifications, is quite as safe—if not safer—in all cases than craniotomy, and that this latter murderous method of destroying the lives of innocent babies may be soon known as one of the things of the past.

PHYSICIANS AND THE SCOTT ACT.

In the month of August, Dr. W. S. Boyle, of Bowmanville, was charged with violating the Scott Act by selling whiskey under the garb of medicine, which, however, was not expected to be used for purely medicinal purposes. It appears from the evidence that the doctor was in the habit of prescribing medicines, and making up the same for his patients in pint bottles, charging from fifty to eighty cents for each consultation and medicine. It was contended by the prosecution that, in certain instances, such bottles contained simply whiskey, with some ordinary vegetable bitter. After a somewhat lengthy trial the doctor was found guilty, and a fine of thirty dollars was imposed upon him.

Dr. Boyle, through the press, affirmed very strongly that he had not violated the Act in any way, and appealed from the decision. We are not certain whether the case is finally decided, but understand that the appeal was not allowed. Whether it is to be carried any further we know not.

We have no comments to make upon the merits of this particular case so far as the verdict is concerned, but have to regret exceedingly to find a doctor engaged in this petty business, giving regularly his advice and medicines, in almost wholesale quantities, for such fees as fifty and eighty cents.

The main question as to whether doctors and druggists, in many Scott Act counties, are guilty of violating the law is a very serious one. A physician, by virtue of the authority given

to him by his license to practice medicine, has, of course, ample opportunity for breaking the law; but the very fact that he is invested with great power and high responsibility makes any such violation a crime contemptible in the extreme; and we can only express the hope that any physician found guilty, on indubitable evidence, will receive the severest punishment which the law can inflict, together with the unmitigated contempt of his *confreres*. We would like to see our profession at all times honorable in the highest sense of the word, and certainly must at least insist upon the observance of ordinary honesty and decency.

THE REMOVAL OF THE UTERINE APPENDAGES.

The operation for the removal of the uterine appendages, though comparatively new, has become rather common in various parts of the world. Many conservative surgeons are protesting strongly against the excessive zeal of Lawson Tait's numerous disciples, who, as they affirm, do not observe sufficient care in their discrimination of the cases which actually require this radical method of cure. Although we must admit there is some ground for such contention, still we feel assured that the brilliant results obtained in properly selected cases prove beyond doubt that it is not only justifiable, but that it is a great boon to suffering humanity. The number of women—bedridden for prolonged periods—who have been relieved and restored to health and vigor by this operation in recent years, has grown so large that extreme opposition is almost disarmed.

Recent events in England suggest caution to surgeons, as far as their own interests are concerned. An eminent surgeon in Liverpool had an action brought against him by an hospital patient upon whom he had operated. The charge was that he had removed the uterine appendages unnecessarily, without giving proper information as to the nature of the results of the operation. It was claimed there had been a serious change not only in the life of the patient but also in that of her husband. The evidence for the defence showed that the woman suffered frequently from menorrhagia,

had constant pain, and that her health was completely broken down. At the time of operation the case was an urgent one, and the section brought to light an intraperitoneal hæmatocele and cirrhotic ovaries. A large amount of treacly blood and clot was removed together with the ovaries and tubes, and the woman made a satisfactory recovery. A verdict for the defendant was returned by the jury after short deliberation. Among the witnesses were Lawson Tait and Savage, of Birmingham, Aveling, Greig Smith, and others.

Dr. Buntin, of Liverpool, also got into trouble over an operation of the same kind. It had a successful issue, and the grateful husband—an artist—sent a letter of thanks to the surgeon. Subsequently, however, he changed his mind, and wrote an abusive letter in which he used very violent language and challenged the worthy surgeon to a duel. The latter declined either to shoot or be shot at, and obtained the protection of the police court. We understand Dr. Buntin still lives without any bullet hole.

THE NEW YORK POLYCLINIC.

The New York Polyclinic, during the session of 1885-6, had a total of 240 practitioners in attendance upon the various clinics, making, since the opening of the school in November, 1882, 812 matriculants. We are in receipt of the Annual Announcement for 1886. The list of professors is almost identical with that at the organization of the Polyclinic. Dr. Learning has been made Emeritus Professor of Diseases of the Chest and Physical Diagnosis, and remains as President of the Faculty. The following is a list of the Professors in charge of the various departments: Diseases of Children, Dr. John H. Ripley; General Medicine and Diseases of the Chest, Dr. E. Darwin Hudson, jr.; Diseases of the Mind and Nervous System, Drs. L. C. Gray and M. Allen Starr; Dermatology, Drs. A. R. Robinson and E. B. Bronson; General Surgery, Drs. Wyeth and Gerster; Orthopedic Surgery, Dr. Gibney; Gynæcology, Drs. Munde, Wylie and Hunter; Ophthalmology, Drs. Gruening and Webster; Laryngology, Dr. D. Bryson Delavan; Physiological Chemistry,

Dr. George B. Fowler. A department of Otology has been created and placed in charge of Dr. O. D. Pomeroy. The Laboratory of Pathology and Histology is in charge of Dr. John S. Thacher. The increase in the size of the classes has necessitated an increase in the number of clinics, and during the session of 1886-7 as many as 86 clinical demonstrations will be given every week.

AMERICAN PUBLIC HEALTH ASSOCIATION.

The meeting of this Association to be held in Toronto, October 5th, 6th, 7th, and 8th, promises to be a very pleasant and successful one. The members of the local committees have been at work for some time completing the necessary arrangements, and the Provincial Government and the City Council have kindly volunteered to assist in entertaining the visitors.

The American Association of Public Health is a very strong organization, including among its members many of the most able men on the continent, and we are highly pleased to have the meeting in Canada this year, and hope it will have a good effect in stimulating the zeal of physicians and corporations in endeavoring to improve our sanitary regulations.

VIENNA MEDICAL SCHOOL.

Over a year ago a small book was published which consisted of a number of letters written by an American physician to a journal in the United States, having for its caption, "Berlin as a Medical Centre." As the number of physicians from Canada visiting the Continent is yearly on the increase, we shall endeavor to have written for the PRACTITIONER some descriptive letters which will present some of the salient points in connection with the teaching of medicine in Vienna.

THE FUNCTIONS OF THE TONSILS.—Dr. R. Hingston Fox announces his belief that "the function of the tonsil is connected with the stream of saliva which passes over it without cessation day and night, absorbing from the saliva, in the intervals of meals, certain of its constituents which would otherwise be wasted."

Meetings of Medical Societies.

HAMILTON MEDICAL AND SURGICAL SOCIETY.

REGULAR MONTHLY MEETING.

HAMILTON, Sept. 13th, 1886.

Dr. Stark, President, in the chair.

Dr. H. S. Griffin exhibited a specimen of cancer of the stomach from a negro woman, about 65 or 70 years of age. Had six or eight children, all of whom are dead. When Dr. Griffin first saw the patient she complained of a constant and troublesome spitting of water, which also escaped from the mouth during sleep; there was also regurgitation of fluids after drinking. Had been losing flesh rapidly; at one time raised a quantity of pus, about a pint.

Post-mortem revealed general thickening of the walls of the stomach. There was narrowing of the œsophagus near the cardiac orifice of the stomach, not a complete stricture. The only other abnormal condition found was some fibroid tumors of the uterus.

Dr. Mullin related a case of a woman who had been suffering for two or three years. At the time he saw her she had had no medical attendant for some months. On making an examination found two or three lumps in the right iliac region extending upwards, about twice as large as the thumb, and movable; could not be fixed, sometimes disappeared altogether.

Post-mortem—Stomach dilated, walls very thin; the greater curvature reached as far as the umbilicus. There was much thickening of the pyloric extremity of the stomach, the orifice would only admit a small catheter. There was no evidence of secondary deposit in any other organ.

The descending colon had a mesocolon fully six inches in length, and the bowel was loose and floating, a condition which would have rendered the operation of colotomy difficult, if not dangerous. The uterus was exhibited; the right ovary was normal, the left had remains of a cyst which had collapsed. A band extended from the omentum near the transverse colon about the situation of the pyloric orifice of the stomach, looped around the head of the ascending colon and cœcum, and passed over

to the left ovary, where it was attached, forming nearly a half-circle. The tumors or lumps above-mentioned are supposed to have been formed by this band retaining feces in the intestines; at times being movable and then disappearing, as stated above, on examination.

A committee consisting of Drs. Malloch, Mullin, Macdonald, White, Leslie, and Griffin, was appointed to report on the pollution of the waters of the bay by sewage, and the best remedy for the evil.

F. E. WOOLVERTON, *Sec.-Treas.*

Correspondence.

To the Editor of the CANADIAN PRACTITIONER.

VIENNA CORRESPONDENCE.

I purpose presenting to the readers of the CANADIAN PRACTITIONER, as briefly as possible in this letter, a few facts concerning Vienna as a surgical centre. Any one who has thought over the subject must feel that, for the proper study of surgery, we must have first, material; second, a well organized system of utilizing material for teaching purposes; and, third, teachers. A few words, then, on each of these points.

Material.—One of the crying needs of our Canadian, and I think I may safely say American, surgical education, is more material for anatomical and operative study and practice. It is a shame to send young men out licensed to operate on living men, to whom the material has never been supplied, and by whom it has been practically unattainable for practicing on the dead subject, at least, the operations most needed in the ordinary routine of a general practitioner's life. In Vienna this need is fortunately not felt; for here that sort of material is most abundantly supplied. Private courses in operative surgery are going on here continually, and any man wishing it can, at moderate cost, have daily two hours of practical work in the operating room with plenty of material, well kept instruments, and with careful and watchful teaching from men whose operative skill, whose breadth and minuteness of surgical knowledge, is, to an honest and attentive student, a perfect surprise. The leading

men among those private teachers are the first and second assistants of Prof. Billroth—Dr. Victor Ritter von Hacker—a man whose name is already well and deservedly known in surgical literature—and Dr. J. Salzer, whose adroit handling of the knife, I have heard more praised by visitors than that of any other surgeon in Vienna. Drs. Maydl and Horrook, assistants of Prof. Albert, are also admirable teachers with generally crowded classes. In addition to these and a number of other private teachers the university supplies two regular professors of operative surgery, Profs. Salzer and Wölfler. When it is remembered that every time any one of these classes meets for work, at least one, often two, fresh bodies are supplied, the number of subjects used is seen to be enormous. The living material is fortunately still more abundant. The Allgemein Krankenhaus, or Vienna Hospital, is furnished with over 3,000 beds, in which from twenty to thirty thousand patients are treated each year. Such a mass of material could never be profitably used for teaching purposes, even by so large a medical faculty as that of Vienna. To meet all requirements each professor is given a department with a limited number of beds; these he has the privilege of filling from any and all parts of the hospital with such cases as are peculiarly suitable to his special purposes in the work of teaching.

The kliniks devoted to general surgery are those of Profs. Billroth and Albert, each of whom has at his disposal eighty-five beds, the ambulance service of each ranging from five to ten thousand patients annually. Then in the polleklinik, Prof. Wölfler has also an annual attendance of over five thousand patients; one hundred beds are devoted to genito-urinary cases in the klinik of Prof. Diltel, with ambulance in correspondence in the same line. The klinik of Prof. Ultzmann, is, as might be expected from the style and character of its conductor, also very largely attended. Then we have several kliniks in which surgery is largely and successfully practiced without its being the sole work of these departments.

Among those we may mention that of Professor Salzer, who has charge of gynecological surgery as a specialty. The work here is very

interesting, and he has a specially good record in abdominal surgery. Professor Karl Braun's obstetrical klinik furnishes also almost daily interesting surgical work, two or three ovariectomies, or other serious operations connected with the female genital system, generally taking place every week. Of the kliniks of Professors Sparth and Gustav Braun, I can say little, though I believe that they also supply such material to the hungry student. It must be remembered that you can stand at any point in the lovely hospital grounds and not be more than five minutes' walk from any and all of those kliniks. Dr. Robert Johnson, of Baltimore, writing in *The Medical Times*, December, 1880, speaks of Vienna Hospital as a library—and truly the simile is a happy one—a gigantic medical and surgical library. Here a man need not run from place to place to hunt his books of reference; all are here under one widely extending roof, surrounding one great garden.

The syphilitic kliniks I shall not mention here, as that is not included under the head of surgery.

The system of teaching comprehends, as in all such institutes, the theoretical and practical aspects of surgery. The professors give regularly what correspond to our didactic lectures, specially intended for students, for grounding them thoroughly in the broad foundational, theoretic and practical knowledge necessary to the just attainment of their degrees. In these, however, one would scarcely recognize a likeness to our didactic lectures. Here the patient is omnipresent. Those didactic are truly clinical lectures; those of Professor Billroth, for example, are not simply illustrated by cases, but are lectures on the cases presented, and every time to the point.

The more distinctly practical part of teaching, where the student is brought into daily personal contact with both teacher and patient, is placed in the hands of so-called "Private Docents," very frequently assistants to the professors, but in all cases men of extensive knowledge, generally good teachers, and almost, without exception, in manner beautifully courteous to their students. Such teaching on special subjects is generally given in the form

of four to six week courses. A list of these will be found to announce teaching that takes up as specialities the various departments through the whole range of surgery, from classes to teach the uses of surgical instruments and the dressing of injuries, to courses on the finest and most difficult surgery of the eye, ear and genitals. The short duration of these practical courses enable a man to have a hand-to-hand struggle with the leading difficulties in any special department without expending an unreasonable amount either of time or money. My space warns me that I must postpone the discussion of Vienna's teachers to another time.

J. H. DUNCAN.

To the Editor of the CANADIAN PRACTITIONER.

VIENNA CORRESPONDENCE.

The great reputation enjoyed by the Vienna medical faculty has, during the past few years, caused such an increase in the number of students, that all matriculated in the University are unable to participate in the lectures and private courses in a satisfactory manner. The faculty, seeing that the success of demonstrative instruction, which forms the basis of medical study here, was suffering some damage, petitioned the Government to endeavor to abolish the defect. Accordingly, two years ago, a pathological institution was erected and a new building for descriptive anatomy is now in course of construction. Even with these added facilities all cannot be accommodated, and the Government, not wishing to expend any more money, and fearing the present increase of students will not continue, has requested the faculty to limit the number, considering that those students who are not among the *elect* can as well find some other school where they may begin or continue their studies. The faculty will no doubt deliberate upon the question, and, it is expected, answer the Government by tabling its request. There were last year in attendance at the University about 6,000 students, 2,407 being matriculated in medicine. These crowded the laboratories, lecture-rooms and hospital wards, and it is scarcely probable that the powers who have control in this matter will close the door in the face of those eager for ad-

mission. Other universities have attached to them earnest thinkers and original investigators, and numerous cities outside of Germany have many leaders in the profession, but in Vienna there is such a grouping of great and lesser lights, forming a constellation unequalled in splendor by any other city on the Continent. The hospital may be divided into twelve clinics. One, known as internal medicine, has in connection with it twelve professors, ten private teachers and a large staff of assistants.

Professor Bamberger has his clinic for medical pathology and therapeutics from seven until nine during the summer session, but during the winter session the lectures commence at eight in the morning. He has been in his present position since 1872, and is well known for his valuable treatise on Affections of the Heart, and for a more recent and also classical standard work, Diseases of the Ohylopoietic system. A graceful and prolific writer, he has contributed many monographs to enrich the current literature of the day; as a diagnostician, he is unequalled by even Gehrhart, of Berlin; a man of vast erudition, he devotes himself less to private practice than to clinical teaching in which he is so eminent, and is the last of the second renowned Vienna school, whose chief representatives were Rokitansky, Skoda and Hebra. His assistants are Dr. Musser and Dr. Hugo Ritter von Frisch, who give private courses, lasting for five weeks, on the diagnosis, pathology and treatment of medical diseases.

Professor Nothnagel, renowned for his work on Therapeutics, was called to Vienna from Jena four years ago. His lectures, fluently delivered, are well calculated to instruct students, and are so popular that in order to secure a desirable seat one is forced to be at the lecture-room some time before the hour. The lectures are practical demonstrations with a patient always before the class; object teaching in the study of symptoms. His assistants, Dr. Jaschke and Dr. E. Bamberger—son of the professor—give excellent private courses on internal medicine. A part of the work in the wards for the clinical clerks is the examination of sputa for the bacilli in suspected cases of phthisis. It is considered when found, to be of positive diagnostic value; but when not discovered, it is no

proof that the disease does not exist. In the offices of the best clinicians here it is as common to see the test materials for examining sputa as it is to find the solutions for testing urine in other places. Perhaps there is a special reason for this, for phthisis is of such frequent occurrence as to be known by the name of morbus Viennensis—a term at times embarrassing to new-comers. In this clinic, Dr. Jaschks has on several occasions removed, by hypodermic needle, materials from the spleen in typhoid fever and from the lung in pneumonia to be examined for the bacteria peculiar to these diseases. Whether this procedure is expedient, or even justifiable, is open to question, yet it may be said that in two cases where the disease terminated fatally no trace of the small punctures were to be found at the autopsies. In Nothnagel's wards is used a new test for the detection of sugar in the urine, recently introduced by Fischer; it is extremely delicate and easily made. Take two parts of phenylhydrazin and three parts of the acetate of sodium, and dissolve, gently heating over a spirit flame, in a test tube filled one-fourth with water, then add an equal quantity of urine and place the test tube in a water bath for fifteen minutes; then put into cold water, and if sugar be present crystals are deposited, which, on microscopic examination, will be found to have the form of small rosettes of a yellowish color. Dr. Heitler's class on physical diagnosis is very popular with the doctors visiting this city. It is held late in the afternoon, five times a week during the session; each course lasting for six weeks. Dr. Heitler is now the only private teacher in connection with the hospital who was a student under Skoda and Rokitansky, and has adopted, so far as possible, the style of teaching of his preceptors. He has the renown of a good diagnostician, making his chief effort at the bedside lecture, towards a clear cut diagnosis, and to give a concise outline of the disease.

W. H. B. AIKINS.

DOUBLE EMBRYO IN A SINGLE BLASTODERM.

—Prof. Legge, in a communication made to the Eustachian Society of Camerire, states that he has had the fortune of meeting with, in a fowl's egg, at about the third day of incubation, two embryos in a single blastoderm, joined together at the summit.—*Revista Clinica.*

Obituaries.

DR. McBRIDE.

It is with deep regret that we announce the death of Dr. McBride, of New York. He had been suffering for some time from Bright's disease, and spent the greater part of the summer at Carlsbad, where he received temporary benefit. On his return home he died of uræmic coma, when on the ocean. Dr. McBride was one of the rising physicians of New York, and would have occupied one of the most distinguished positions on the continent if he had been spared.

Book Notices.

Surgical Lesions of the Brain and its Envelopes. By NICHOLAS SENN, M.D., of Milwaukee. From the *Medical News*.

Some Recent Experiences in Clinical Surgery. By DONALD MACLEAN, M.D. Reprinted from the transactions of the Michigan State Medical Society.

Operations on the Drum-head for Impaired Hearing, with fourteen cases. By LETH S. BISHOP, M.D., of Chicago. Reprinted from the Journal of the American Medical Association.

Galvano-Cautery in Diseases of the Prostate Bladder and Urethra. By ROBERT NEWMAN, of New York. Read in the surgical section at the 37th annual meeting of the American Medical Association. Reprinted from the Journal of the American Medical Association.

Electrolysis in Gynecology, with a Report of three cases of Fibroid Tumor successfully treated by the Method. By FRANKLIN H. MARTIN, of Chicago. Read at meeting of American Medical Association, with discussion; also supplementary paper citing two cases of Fibroid Tumor treated by Electrolysis. By J. N. FREEMAN, M.D., Brooklyn. Reprinted from the Journal of the American Association.

Reports of the Acting-President and Professors of the University of North Dakota for the Year ending June 15th, 1886.

The Acting-President of this flourishing young University is our old friend Henry Montgomery, M.A., B.Sc., formerly Lecturer on Biology in Toronto School of Medicine. We are pleased to know that Mr. Montgomery has been so successful in his efforts to build up the Institution, in which he has been the leading spirit since its Establishment.

Personal.

Dr. J. H. Duncan, who has been spending a few months in Vienna, will resume his practice in Thamesville, Ont., on his return early in January.

BIBLIOGRAPHICAL NOTE.

The following extracts from the preface to the forthcoming (sixth) edition of "The Principles and Practice of Medicine," by the late Dr. Austin Flint, will be read with interest, as evincing alike the enormous personal experience upon which the author founded his opinions, and the very complete manner in which he has presented to the fellow-members of his profession the matured results of his life's labors.

"The basis of the work is an unbroken series of records of cases in private practice and in hospitals, begun in 1833 and continued for more than half a century, covering sixteen thousand nine hundred and twenty-two folio pages of manuscript, written with the author's own hand. These records embrace carefully-written histories of cases in all departments of practical medicine, observed under varied conditions of life, climate, and general surroundings. Soldiers in camp and barracks; the rich and the poor; those affected with diseases incident to lives of ease and luxury, and paupers in hospitals; the pioneers of Western New York, and the inhabitants of the metropolis; patients in the wards of the almshouse and hospitals of Buffalo; of the Marine Hospital in Louisville, Kentucky; the great Charity Hospital in New Orleans, Louisiana; the Bellevue Hospital, the Charity Hospital, the Dispensaries, and similar institutions in the city of New York. Cases observed in the experience of a quarter of a

century as a general practitioner, and of more than another quarter of a century as a consulting physician, including the epidemics which have occurred in this country within the last fifty years—the experience derived from these various sources of observation, carefully recorded, studied, and analyzed, was finally used in the composition of this treatise.

"The claim in the preface to the fifth edition, 'that the eliminations, substitutions, and additions, rendered it essentially a new work,' can with equal propriety be made for the present edition as compared with the edition issued in 1881. Among the entirely new articles, special attention may be called to the following: Infectious Tumors, Syphilitic Disease of the Lungs, Cerebral Syphilis, General Considerations relating to Inflammatory and Structural Diseases of the Spinal Cord, Spastic Cerebral Paralysis of Children, Hereditary Ataxia, Myxœdema, Multiple Neuritis, General Pathology of Fever, and Milk Sickness. In addition to these new features, many articles have been entirely rewritten; and in nearly every article changes and additions, some of them very important, have been made."

Miscellaneous.

The following, taken from one of our dailies, shows the false position in which the profession may be placed by one of its unscrupulous members: "Good morning, gentlemen," said the doctor, as he walked into the newspaper office, "is the city editor in? Ah, yes, I see. Mr. Huntumup, there was an accident on Fremont avenue this afternoon that I thought you would like to hear of. Mrs. John Peduncle was thrown out of her carriage and sustained a compound fracture of the right clavicle. She was taken home and medical aid summoned. Her injuries were skilfully attended to, and she is now resting easily. You might say that I was called and have charge of the case."

"By the way, doctor," said the advertising manager, looking up from his books, "I would like to insert an advertisement for you in the *Banner*. I'll let you have it a year for \$30 an inch, payable—"

"Sir," interrupted the doctor with a scowl, "I never advertise. It is contrary to medical ethics. Good day, gentlemen."