

Technical and Bibliographic Notes / Notes techniques et bibliographiques

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

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

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

Continuous pagination.

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

THE
MONTREAL MEDICAL JOURNAL.

VOL. XXIII.

MARCH, 1895.

No. 9.

Original Communications.

THE CLIMATE OF CANADA AND HOW IT
AFFECTS US.*

By WM. H. HINGSTON, LL.D., D.C.L., M.D., L.R.C.S. Edin., etc.

It may be said, in a general manner, by way of preface, that the climate of a country affects the stature, strength and complexion; that it causes sometimes, sometimes cures, and often modifies disease; that it sometimes prolongs, sometimes shortens life. But the influence of climate proper is most evident where its effects are least interfered with by other circumstances. The aborigines therefore of a country, and those who live much out of doors, are those who feel most the influences of climate.

Climate, in its most restricted sense, is but one of the many causes which affect man. Neither here nor elsewhere, therefore, can climate be considered without those other influences of great potency—the relative conditions of wealth and comfort.

A knowledge of the physical geography of a country is necessary to those who would wish to be familiar with its climate, and ours doubtless is well known to you. (While using the second person "you," in this paper, I mean you, most welcome visitors from across the line; "we" will apply to us on this side. This is by way of avoiding fre-

* Read before the American Public Health Association, September, 1894.

quent repetitions; and not of idly marking geographical boundaries, or territorial limits, or national distinctions, for science—and especially sanitary science—knows them not.)

And first as to extent of country: great as is yours, this is greater; not exactly in land area, but in land and water superficies. Canada is greatly diversified in surface and physical characters; yet local diversities disturb but little the general harmony of the whole. We have our Apalachian chains of mountains, and feel their influence; so have you. We have our bold Rockies, so have you; and for your Alaska we have the Arctic and Hudson Bay regions. While you have your Mississippi and Missouri, we have our St. Lawrence and Ottawa; while you have the Green Mountains of Vermont, we have their eastern extension—the mountains of Notre Dame. The Laurentians on the north are especially ours; and, protecting us in great measure from the inclemency of the north, even to the Arctic Ocean, secure to us a habitation and a home. The water-sheds are in some instances common to both countries; and the chains of lakes are, some of them, yours and ours in common; but many of them are ours alone. Those sloping towards the east feed the mighty St. Lawrence, which, when passing the city of Montreal, travels, at ordinary low water, at the rate of twenty million cubic feet per minute; and at high water at forty to fifty million cubic feet per minute. What a mighty factor is there here for sanitary purposes! When, swelled by numerous tributaries, the St. Lawrence reaches the Atlantic, it pours its contents at the rate of one hundred million gallons per minute.

The small lakes are endless in number, especially in the extreme north. These large fresh water seas, contain nearly one-half of all the fresh water on the surface of the globe.

To a practical eye, this profusion of lakes would mean facilities for commerce, and a ready means for passing from one part of the country to the other; but to hygienists

they have other purposes. They moderate the temperature both of summer and of winter, and render pleasant, healthy, and agreeable the climate of the country. Another feature in the physical geography of the country to which I shall allude is the slight degree of elevation of the land above the level of the sea. You, visitors from Mexico and South America; and the southern parts of North America, when at home, tower above us by nearly a thousand feet. We are content to occupy a lower level—an average elevation of something like one to three hundred feet above the sea is sufficient to satisfy us. The city where we meet, is at low water, but eighteen feet above the level of the sea. But the low altitude of which I speak, and with which we are content, is favourable to this climate and to vegetation. Were our plateaus, on the north coast, as elevated as some of yours, vegetation, if at all possible under such condition of height, would be confined to mosses; and animal life would be limited to a few hardy, thick-furred, thinly scattered animals. All our slopes toward the ocean are long and gentle; many of yours are short and rapid. While our low elevation on the north is most favourable to us, we are grateful to you for your Mexican Cordilleras and the bold Rockies, which temper the soft winds, loaded with watery vapour, which reach us from the Pacific, which, without these interposed mountains, would enervate us. Were the configuration of this portion of the continent otherwise than what it is we should be exposed to vicissitudes of temperature from the northern Atlantic on the one side, and from Pacific on the other, too sudden and of too great a range for man, with all his ingenuity, to endure.

That a climate begotten of our latitude and longitude, or of the physical configuration of the surface of our land, is not destructive to vegetable life, you may gather from the magnificent forests and rich herbage which cover the soil. Many millions of cubic feet of our oak, elm, beech, maple, walnut, linden, ash, hickory, pine, spruce and cedar are being steadily conveyed to your country to be there

fashioned to suit an endless variety of purposes. Even our cereals and fruits—though the political exigencies of the two countries seem, so far, to render their admission difficult—are tempting to you. Canada, as a wheat growing country compares favourably with Central Russia. Even before the valleys and plains of Manitoba and the North-West were open to us, the Richelieu, and other districts bordering many of the tributaries of the St. Lawrence, produced wheat of a whiter and finer description than that of Great Britain, as rich, almost, in gluten, as that grown on the shores of the Mediterranean, and in those districts, growing so rapidly, as to be in ear nine weeks after it had been sown. Even rice is found growing wild in our northern climate; and Indian corn (the maize), with its stalks abounding in sugar; while melons, pumpkins and squash, the products, it is supposed, exclusively of hot climates, grow luxuriantly all over the southern, western and central parts of the country.

The variegated forests and their great vigour and beauty may be taken as evidence of the humidity of the atmosphere and of the fertility of the soil. Everywhere is found a mixed forest in rich luxuriance; and plants with shrunken leaves, or trees with feeble stems will nowhere be found within our territory. At the north, it is true, you will find the leaves rolled, as it were, into pin-like form, so that they may intercept, but little, the oblique rays of the sun.

As are our vigorous forests, so are our inhabitants, in the qualities of health and vigour.

It would serve no purpose to speak of our warm days or our cold days; of our dry weather; or of our moist weather. Our climate is drier than is that of some countries; it is moister than is that of others; and it is colder than in most countries, yet would we not wish it warmer. It is warm—too warm sometimes for our comfort—for two months of our summer; but the heat is dry and easily borne, and we regret when the falling leaves of autumn remind us of its close.

The electrical condition of the atmosphere is remarkable ; the atmosphere almost always exhibits a sensible electrical state, be that positive or negative. In clear weather, the atmosphere is vitreous, or positive ; and during hail or snow-storms that condition is usually preserved. When clouds drift with violence, the electricity often becomes negative ; but in clear frosty weather, and in winter, the electrical condition is positive. The electric condition has much to do with the well-known energy of the inhabitants in stimulating them to exertion.

Our warmest weather is grateful to the senses. The quality of the atmosphere is such that its heat preserves the temperature of the body by exciting the functions of the sudoriparous glands of the skin ; and, by bathing the body with moisture, it lowers, at the same time, the temperature of the surface by rapid evaporation. A temperature of 85° in Canada, is more agreeably borne than is a temperature of 70° in a damp atmosphere, as that of England. The heat of the summer does not continue long enough to produce those disturbances of the gastro-intestinal system which are so common in hot climates generally ; while the malignant and putrid disorders of those countries are here unknown. Affections of the liver are not common even in hot weather, and are not troublesome to the temperate (I mean the temperate in eating as well as in drinking).

But judging from what you observe from seeing pictures of our ice-palaces exhibited periodically, you would be disposed to think that we had to do with winter's cold rather than with summer's heat. The human constitution is not affected here as it is in countries rendered cold by their great altitude. Here the cold is exhilarating and does not lead to early destruction. What is dreaded in other countries, where cold is severe, is moisture ; here the air is dry. We have remarkable instances of persons exposing themselves during long marches to a temperature of 40° to 50° below the zero of Fahrenheit without inconvenience. In the earliest period of our history, when our Canadian

settlers were exposed to intense cold during the whole winter, they managed, provided they could keep off the wind, to pass the cold season in comfort. Our cold does not enervate or depress; on the contrary, while it pinches it invigorates and disposes us to activity.

The long continued influence of our cold has not yet produced that congelation of the imagination which Dubois prophesied. Your own esteemed traveller, Dr. Kane, whose memory we here venerate, noticed the same thing among our neighbours, the Esquimaux, to the north of us, whom he described as a "happy race of people, happy so far as a contented and an elastic temperament go to make up happiness." Yet is the cold they endure greatly in excess of ours!

The influence of our springs and autumns is much like that of those seasons elsewhere. The ratio of mortality in Canada is low. When Canada was a military station it was, with the exception of Malta, the healthiest station under the British crown, and soldiers, debilitated by residence in other climates were sent hither to recruit their strength and vigour. The valuable statistics furnished by the surgeons of the American Army show your stations to be healthier as they approach the great northern lakes which separate, yet join, your country and our own.

Most countries, indeed most sections of countries, can boast of some malady peculiar to the soil; but Canada can make no such boast: she has no disease exclusively her own. The fevers met with—the intermittent, the remittent, the bilious remittent—are mild. The first of these is becoming rarer and rarer, and in a few years bids fair to be unknown. It is still met with in the west, but according to our highest authorities is unknown as far east as Montreal. The ephœmera, as their name implies, are of a mild type. They have nothing to do with the country in which they occur, but may arise anywhere from drunkenness, exposure, etc. With a poetical license I might say of them with Longfellow, "They can be cured by wearing a spider hung round one's neck in a nutshell."

Consumption exerts its baneful influence here as it does in most climates; yet is Canada a country favourable, at certain seasons, and under certain circumstances, to an arrest of the disease. It is admitted that temperature does not alone exert that marked controlling influence on the progress of phthisis which has been long attributed to it. We have come to regard, as the most desirable atmospherical condition for the consumptive, the condition of dryness; and next to dryness, equability of temperature—uniform for long periods, and not disturbed by sudden or frequent changes. These conditions are met with in various parts of Canada, especially in the higher and western portions. This question, however, is too vast to permit me to more than glance at it in this short paper.

I said a moment ago we had no disease peculiar to Canada. There is a disease, however, insignificant in extent, though heartless in quality, which is met with on the Miramichi river in one of our Maritime provinces. I allude to the little colony of lepers confined to the lazaretto of Tracadie on the New Brunswick coast, where the inmates are destined to a life of isolation. The disease is not indigenous, but was brought there by a couple of shipwrecked sailors many years ago.

The healthiness of the climate of Canada may be fairly computed from the tables of life insurance. British companies charge a less premium on Canadian than on British lives up to the age of 37; after that period the balance is the other way. British underwriters recognize, and with wisdom, a severer strain on the human constitution in Canada than in Great Britain.

If the health of the climate and other conditions may be gathered from the natural increase of the population, then is Canada one of the healthiest of countries. I might for the moment admit, with Mr. Sadler, that the prolificness of human beings, otherwise similarly circumstanced, varies inversely as their numbers; or, in other words, that the prolificness of a given number of marriages will, all

other circumstances being the same, vary in proportion to the congestion of the population, so that the prolificness should be greatest where, in equal spaces, the numbers are the largest. This view of Mr. Sadler is not borne out in Canada, where the birth rate has maintained its high ratio, even with numbers, to a district relatively increased.

This is not the time nor the place to speak of that disturbing element which, in this mixed assembly, I dare not even name, beyond qualifying it as the demon of prudential desire of limitation, which does its cursed work in certain sections of this land—will you pardon me if I say, on the authority of some of your own distinguished medical writers, in many and large sections of your land. I said certain sections of this land, and certain sections only, for in this, our country, while there are isolated spots, here and there, in certain of our cities into which the foul thing has crept, there are hundreds of thousands of miles where the nameless and shameless crime is unknown. The natural increase of one section of our population—the French section—is almost unparalled in the history of the world, doubling itself in some districts in fifteen or sixteen years. The offspring of sixty thousand of a century and a quarter ago are now counted by between two and three millions. May not this pregnant fact be due to some extent to another fact to which I may allude: the women lived happily at a time when uterine troubles were not fashionable, and when the ovaries and tubes were not considered *de trop*. Among the English-speaking population the natural increase is also large, much indeed what it is in the more fruitful parts of Great Britain, Ireland and Russia.

Some little uneasiness is being expressed at the large death rate among children. No doubt the death rate is large, and especially in cities; but it is large, chiefly because the birth rate is large; and not from any inherent vice of constitution; or vitiated environment; or climatal condition. Dr. Larocque attributed the high death rate in children to overfeeding, and to the use of food of too strong

and too stimulating a quality. Among the poor, it is not unusual to find a child as soon as it can eat alone, seated at the table with its parents, and partaking of food of which grease and fat meats form a large part. Strong soup—from which it would be heresy to remove the supernatant fluid fat—is a favorite food. As a result, gastric disturbances are not uncommon.

Unlike other cold countries the larger mortality is not in winter, and this is an emphatic refutation of the assertion that our Canadian winters are trying seasons. Winter is our healthiest season. If we deduct frost-bites, and other injuries incidental to the season, the small mortality in winter would be still further diminished. In the ratio of mortality autumn comes after winter; spring next to autumn. The highest mortality in city and in country is in the summer season. In cities, this is easily accounted for; a certain degree of heat evolves a certain quantity of deleterious gases, and every additional degree evolves an additional quantity, and perhaps a new kind or quality of deleterious gas. Thus 70° will cause the evolution of more than 65° , and 75° more than 70° , and so on. In the months of July and August diarrhetic complaints are common; but these must not be attributed to the elevated temperature so much as to the result of improper alimentation at that season; especially by ill-kept food, and markedly milk. Obtaining fresh milk is not always easy to poor people—it was not easy even to our own Princess Alice in her German home, where she says she found fresh milk difficult to obtain, and very expensive.

As a residence for consumptives, many parts of Canada present advantages not possessed by other countries. I have said that for this disease an equable temperature and dry air are of the first moment, and in no other part of the world can these qualities of atmosphere be more certainly obtained. The favourite resorts of Europe are alternately exposed to the hot winds, on the one side, and to the icy chills from the mountains, on the other. With us there are few local disturbing features to upset the general whole

There are certain conditions of the lung in consumptive patients which are especially benefited by the climate of Canada: I allude to those conditions of imperfect expansion, at an early period; and of consolidation, at a later period. Early in the disease, when deposition of tuberculous matter takes place; or, rather, before the stethoscope can clearly detect its presence; when the natural respiratory murmur becomes less distinct, or interrupted and halting, and not continuous, as in health, the dry stimulating climate effects much. Even in the stage of deposition and induration—the first stage of recognizable disease—where as yet no cavities exist, and where there is no undue bronchial irritation, the winter climate of Canada is of great value. Many of the more eminent physicians of Europe have recognized this quality in our climate, and have often-times sent patients hither. The class of patients, formerly sent on whaling expeditions, is now sent to winter in Canada, where the advantages of temperature are recognized, and where the comforts of life are easily obtained. It would detain you too long to point out in detail the localities, in this country, to be chosen, and to be avoided, by the consumptive; but I shall be glad to present to any member of the Association, who desires it, more extended observations on the subject generally, which are embodied in my work on this climate.

I have hitherto confined myself to the influence of climate *pur et simple*. But climate means all the circumstances under which we live, or as it is defined by a French writer, *les conditions dans lesquelles nous vivons dans chaque lieu*. The influence of the climate, therefore, cannot be separated from the habits of the people. That part of the subject, however, is too vast, and ramifies in too many directions, to permit me to enter upon it. Let me say, however, that while luxury is enjoyed by a privileged few, the humbler classes, especially in our country districts, live frugally, temperately and well; and although they do not always give outward evidence of wealth, they have sufficient for all their legitimate wants; they live in comfort and

exhibit a happiness and contentment born of that comfort. Here is being built up a great and powerful people—a Canadian people—possessing great elasticity and vigour of mind and strength of body—capable of assimilating and appropriating to itself all that it should not reject, and having vigour, force, and energy enough, to reject all that it cannot appropriate.

You, like ourselves, will admit there is a change which takes place in the European constitution after a short or longer residence in this western portion of the globe. These changes in physique—changes that we observe as well in the animal and vegetable kingdoms—changes so marked that many of the flora are sometimes with difficulty recognized, so different are they from their European cousins—those changes in the human constitution are no less marked: the high colour which flushes the cheeks, and reddens the skin of Europeans, fades somewhat; the skin becomes drier, less soft. The effects of the dryness of the air is visible in the dryness of the hair and nails of our bodies; the hair becomes darker and straighter, partaking more of the aboriginal type; the teeth are said to decay at an earlier age (but of this anon); the fat which cushions the muscles and gives a roundness to the general outline is less abundant, and the muscles of the face, or their tendinous prolongations, are more prominent. New habits spring up within us; we seem to take on a new form of existence, and the national and natural character is soon modified to suit the new order of things which here exist. Our cis-Atlantic life is active, yet it is not one of such ceaseless activity as, perhaps, with you. Methinks, we occupy, in that respect, an intermediate position between the people of the old world and you the people of the new.

During the couple of hundred years of its existence, Canada has given no sign of physical decay. On the contrary, the children of New France—longest in possession of the soil—are greatly superior in strength and

powers of physical endurance to their French progenitors, even to the peasantry of Bretagne—still the home of the healthiest, most vigorous and most prolific, and let me add the most virtuous of the French nation; while the descendants of the English, Irish, Scotch and Germans have more than held that superiority of *physique* enjoyed by their progenitors on the other side of the Atlantic. They, too, have gained in height and lumbar strength and exhibit nowhere those evidences of deterioration which Knox and other writers gloomily foreboded.

ON INFANTILE SCURVY, WITH REPORT OF TWO CASES.*

BY A. D. BLACKADER, M.D.

Professor of Pharmacology and Therapeutics, and Lecturer on Diseases of Children
McGill University.

It is only recently that the symptoms of scurvy in children have received recognition by the profession in America. Scarcely a twelvemonth ago, Dr. Northrup, of New York, previous to the presentation of a paper on this subject before the New York Academy of Medicine, wrote letters to physicians in various parts of the States and elsewhere, asking their experience with infantile scurvy. Along with others I was asked to communicate what I could, either from my own personal experience, or from that of my *confrères*, in reference to the prevalence of this disease in Montreal. I had to reply that personally I had not up to that date recognized a case, and careful enquiries made from many connected with the larger of our English and French hospitals and children's institutions, received everywhere the same answer, that no cases had so far been recognized in Montreal.

This autumn, however, I had the satisfaction of seeing two fairly distinctive cases, and as the symptoms of scorbutus, unless looked for, are liable to be either unnoticed or mistaken and attributed to other causes, it seemed to me that a report of the cases, with a short review of the literature, might prove of some interest to this Society.

My first case was seen by me about the middle of last November. The infant, 12 months old, had at birth been a small but well-nourished infant, and for the first six weeks was nursed almost entirely at the breast. Then the supply failed, and the infant, under the supervision of the attending physician, was fed with a mixture of

* Read before the Montreal Medico-Chirurgical Society, Jan. 11th, 1895.

milk, barley water and lime water. Under this artificial feeding it failed to thrive; vomiting, curdy motions, and almost continuous colicky pain, attested the failure of digestion. One by one the more popular infant foods received a trial; Cardinal Food, Lactated Food, Neave's Food, Nestlé's Food, Horlich's Malted Milk, Peptogenic Milk Powder. Then the infant was taken to the country. Milk was again tried, but failing to agree, recourse was had to Carnrick's Soluble Food which appeared for the time to be digested and assimilated. The child under this commenced to gain weight, the motions improved, sleep was more restful, while during the day the infant appeared bright and contented. About the first week in October, the mother noticed that the child cried on any attempt to move the lower limbs. Shortly afterwards, a swelling was observed about the right knee, and later a bluish-colored spot appeared an inch below the head of the tibia. This was shown to the attending physician, who told the mother the child must have had a fall and prescribed a liniment to be rubbed over the swelling. Five or six days afterwards a similar bluish spot appeared on the other knee, and the mother, on again consulting the physician, was told that probably both knees had been injured by the fall, that accidents like this required time, and quietness was enjoined for the baby.

Two weeks afterwards the child was brought to my office. The notes taken at the time are as follows: Infant, twelve months old, rather small for its age, pale, but with a fair amount of subcutaneous fat. Head well shaped, anterior fontanelle not abnormally large; slight beading of the ribs; chest well shaped; abdomen slightly prominent; infant cries at once on movement of the lower limbs. On the right knee, one inch below the head of the tibia, there is a bluish-green spot of ecchymosis about the size of a half-dollar piece; just above the joint the limb appears slightly swollen, and firm and resisting to the touch. The skin is pale and cool, but the surface is apparently tender. The circumference of the limb here is $\frac{3}{8}$ inch larger than that

of the corresponding limb. Below the left knee there is another spot of ecchymosis considerably larger than on the right knee; here the limb is tender and slightly swollen. No attempt is made by the child to move the limbs, and since the onset of the trouble, four weeks ago, the infant has refused to make any attempt to stand, although previously it was eager to do so. The patellar reflexes are active. Another spot of ecchymosis, about the size of a ten-cent piece, is present on the left ear. An inspection of the mouth shows the two lower incisors cut, but the gum surrounding them is of a deep bluish-red colour, bleeding easily when touched. The upper incisors are not yet through, but the mucous membrane over them is reddened, and over the edge of the two teeth almost through, it is of a deep bluish tinge. Otherwise the child appears well. The tongue is slightly furred, the motions are somewhat pale in colour, the urine is said to be scanty, and the thermometer taken in the rectum records 99° F.

The infant was ordered to be given about a tablespoonful of fresh orange juice, slightly sweetened, and diluted with water. Artificial foods were stopped, and a mixture of creamy fresh milk with thin barley water was directed to be given. Once a day the child was to have a dessert-spoonful of the red juice of a lightly broiled steak. The knees were to be kept covered with cotton wool and a light bandage.

Three days later, the mother reported that the infant appeared to be almost well. Tenderness on movement had passed away, the ecchymosis had almost disappeared, and on the second night after the change in his food, the child passed the quietest night of its life. Eight days after the first visit the child was brought again to my office. The gums were perfectly healthy; there was almost no difference to be made out in the girth of the two lower limbs, both of which it moved of its own accord. The infant was now given a mixture of cod liver oil and iron, and a little carefully mashed potato was added to

its diet. I have not seen it since, but on telephoning to the mother a few days ago, the child was reported to be the picture of health.

The second case was an infant aged 11 months, the last of a family of six children, all strong and healthy, and all of whom had, as the mother told me at the time, been brought up on the bottle and thriven on it, giving little or no trouble. This one had been perfectly well up to five weeks previous to my visit, when it was noticed to show signs of pain on movement of the legs. This, it was thought by the mother, would pass away, but on its continuance, the family physician was called in, who examined the limb carefully and found no sign of any injury. Two weeks afterwards the child was again seen, the diagnosis of rheumatism made, and a salicylate mixture prescribed. No improvement followed, the child became very restless at night, and I was asked by the attending physician to see the infant. I found the child very pale, almost earthy in colour, but with a fair amount of subcutaneous fat. On examination, there was evidence of slight rachitis. The chest was well shaped, there were no ecchymoses anywhere to be seen, and there was no distinct enlargement in any place, of either of the lower limbs. The child made no effort to move its limbs, and cried bitterly when any forcible attempt was made to disturb them. The reflexes were normal. On examination of the mouth, the gums were found in a very similar condition to that described as met with in the previous case. Around the two lower incisors there was a broad line of inflammation of deep bluish hue, bleeding easily when touched. The lungs, heart, and abdominal organs all appeared healthy. On enquiry, I found that while the other children had been fed on various mixtures of milk and flour, for this child the mother had been instructed to boil all the milk given. This she had endeavored to do thoroughly, the better to kill the germs. So the boiling continued over several minutes.

In the way of treatment I prescribed as before, a little orange juice, and the red juice of underdone steak. I also stopped the boiling of the milk. On the following afternoon I received word from the mother that there was already a marked improvement; and when I called after a few days I would hardly have recognized it for the same infant.

Only a few weeks ago, Dr. Barlow, in the Bradshawe Lecture before the Royal College of Physicians, has very exhaustively treated the whole subject of scorbutus in infancy. Dr. Gee, in 1871, first drew attention to this disease, and described five cases under the title of osteal or periosteal cachexia. Not, however, until 1878 were the symptoms of this disorder asserted to be scorbutic in character by Dr. Cheadle, and in 1883 Dr. Barlow, in a lecture before the Medico-Chirurgical Society of London, gave the first complete account of its clinical history, etiology, and the morbid conditions present in the bone lesions, and demonstrated its resemblance to scurvy in the adult. Since then numerous cases have been reported in England. In America, Dr. Northrup, at the meeting of the American Pediatric Society in 1889, was the first to report cases of infantile scorbutus, and in his paper last year before the New York Academy of Medicine, a total of 106 reported cases were recorded as having been observed in America.

The disorder generally makes its appearance in infants between the ages of nine and eighteen months. It is said to occasionally occur as early as the fourth month. The onset is usually sudden. The infant becomes fretful; disinclined to move; its lower limbs are kept drawn up and still, and any forcible movement of them gives rise to continuous crying. Later on, should the conditions giving rise to the disorder continue, an obscure swelling may perhaps be noticed on one of the lower limbs, usually on the femur towards its lower end, or on the upper end of the tibia, and a few days later, a similar swelling may appear on the corresponding limb of the opposite side. Generally

the swellings are not symmetrical. The skin over them is pale, and there is no local heat or pitting. The bulk of the limb is increased, but there is no fluctuation; on the contrary, the swelling is ill-defined and is suggestive of thickening round the shafts of the bones. The limbs are now more or less paralysed, everted and immobile, but the patellar and plantar reflexes are active.

If the disease progress, swellings of the same character may appear on other bones; on the scapulæ, bones of the arm, vertebræ, etc., and occasionally, in some cases, fractures on slight occasion may occur.

One of the more frequent, and sometimes the only swelling of the kind, as Dr. Barlow points out, occurs on the upper orbit, giving rise to sudden proptosis of the eye-ball, with puffiness, and in a few days, slight ecchymosis of the upper lid. These swellings are due to extravasation of blood under the periosteum. In severe cases, hæmorrhage may occur into the centre of the shaft, leading to extensive absorption of trabecular tissue, and predisposing to fracture. Extravasations are also met with in the superficial and deep set of muscles, but one never meets clinically with the small subcutaneous hæmorrhages of purpura. The condition of the gums is modified, as in the adult, by the presence or absence of teeth. If the teeth be present we have distinct sponginess of the gums, which in some cases may go on to fleshy swellings, even projecting from the mouth and giving rise to fetor. When only a few teeth are present the sponginess is less marked; and if there be no teeth, the gums may appear normal, or may present small bluish extravasations over the sites of the advancing teeth.

The chief constitutional symptom is the anæmia, due partly to direct cachexia, and partly to loss of blood from the extravasations. Although emaciation may not be marked, asthenia appears to be extreme. Pyrexia is only slight and often altogether absent, but occasionally an elevation of 102° F. is recorded, apparently due to the pain and tension produced by the extravasation. The appetite is gen-

erally fair; the urine is scanty. In severe cases, hæmaturia may sometimes be observed.

The presence of some degree of rachitis was noted by all the earlier writers on this disease, and some of them, especially in Germany, attributed the morbid conditions noticed to an acute form of rickets. More careful observations, however, showed that, while the symptoms of both disorders might be present in an infant, they were distinct and not dependent upon one another. The all-important factor in the development of scorbutus in the infant, as in the adult, is a faulty dietary. We shall always find in scorbutic infants a history of the child having been fed for several months on food of which the vitality has been more or less killed by cooking. Infants fed on the so-called patent foods for any length of time appear especially liable to this disorder. To such foods we must also add condensed milk, milk too long sterilized, and boiled milk. As Dr. Barlow says, "The further we get from living food the more is the likelihood of scurvy being induced." Scorbutus does not appear to be a disease frequently met with among the poor, or in out-patient hospital practice, for the following reasons given by Dr. Barlow: (1) Such patients are generally too poor to afford the expense of feeding their infants altogether on patent foods; and (2) the children of the poor are usually brought to the table at an early age, and are given pieces from their parents' dishes, and thus obtain a variety, harmful in some respects, but beneficial in that it prevents the development of scorbutic symptoms.

It is to be noted that the symptoms of this disease vary much, and are sometimes very apt to mislead. In some cases irritability of the infant and apparent tenderness of the limb, are out of all proportion to the signs found. In a few cases proptosis due to orbital hæmorrhage has been for some days the one prominent symptom, and if we are not on guard, may give rise to a diagnosis of more serious disease. In a recent lecture Mr. Howard Marsh calls attention to several cases where scorbutic extravasations had led

to the diagnosis in one case of sarcoma, in another of fracture of the femur, and in a third of infantile paralysis, the alarming symptoms quickly subsiding on proper dietary and treatment.

There is another thought to bear in mind in reference to this disease, and it appears to me a most important one, and it is this just as we may meet in some children with symptoms of rickets so slight that they may easily escape our notice, unless a careful consideration of the history and examination of the infant be made; and just as such a rachitic condition may underlie other disorders of the respiratory or alimentary tract and require proper treatment before these disorders can be permanently and satisfactorily cured; so may we not have a scorbutic condition with such slight symptoms as to scarcely permit an absolute diagnosis, yet may not such a disordering of nutrition underlie many troublesome and persistent clinical conditions, and require careful consideration and treatment before we can satisfactorily alleviate the associated ailments?

A SERIES OF EXTRA-UTERINE PREGNANCIES.*

By J. ANDERSON SPRINGLE, M.D.,

Professor of Anatomy University of Bishops' College; Surgeon to the Western Hospital, Montreal.

I shall not attempt to enter into a consideration of the subject of this condition, for it may be found occupying chapter upon chapter in any modern text of gynæcology or abdominal surgery, and medical literature teems with it. Still I think you will agree with me that one or other of these cases possesses more than one point of interest.

This paper is more properly a series of four case reports of extra uterine gestation, which present so many differences in their history and clinical course and effect that I thought perhaps their relation might be of interest to you.

Two of these cases were advanced, one to a little over six months, the other somewhat less. The other two were early pregnancies not advanced more than three months. Again, one of each of the two was operated upon and the others recovered with equally as good results.

CASE I. I first saw at the Metropolitan Dispensary in June, 1893, and ordered her to the Western Hospital, where she was admitted on the 15th of that month. Her age was 28 years and she had been married nine years and had had nine children and no miscarriages. Her youngest child was then 18 months old. She had never, so far as she knew, suffered from any menstrual or other disorder bearing upon her condition at the time. When first seen at the dispensary she was complaining of great abdominal pain and enlargement of the abdomen, due to a tumour, she had been told by her physician.

While in the hospital she gave the following history in addition to that stated above :

On February 28, 1893, she became unwell and continued

* Read before the Montreal Medico-Chirurgical Society, January 25th, 1895.

to be so until March 29. The flow was accompanied with more or less pain, which she had not experienced before, and at no time had she noticed shreds or pieces of tissue to lead one to suppose that a decidua had been shed. She continued to exercise her household duties, but experienced always more or less pain of a lancinating character and situated more in the lower abdomen, accompanied by nausea, vomiting, fainting attacks and frequency of micturition. These symptoms continued up to the time when seen and patient suspected, but was not quite sure, that she was pregnant.

The mammae and arcolae were in a condition corresponding to the period of pregnancy that she was supposed to have been in. The abdomen was enlarged, tender, and with some slight difficulty an ovoid in contour tumour could be felt reaching to the umbilicus and enlarging below where its outline to palpation became lost in the depths of the pelvis. The tumour was dull on percussion, very tender, no contractions to be felt, no foetal movement (although the patient thought she had felt these), and no heart sounds to be heard at the time. A well-marked souffle was heard.

Per vaginam the uterus was found to be crowded to the right and front of the pelvis, but its exact position and connection with the tumour could not be ascertained accurately. It was raised slightly and measured by the sound slightly over 70 m.m. The remainder of the pelvic cavity was filled by a large fluctuating tumour continuous with that observed above. It was thought at the time that a solid movable body could be detected, but the extreme tenderness precluded thorough manipulation. Dr. Fisk, then house surgeon of the hospital, detected foetal heart sounds upon the day of operation.

When the cavity of the peritoneum was examined it was found that the pelvis was roofed by a tumour which had a projection upwards. It completely filled the pelvis from the brim. The uterus and right appendage were easily felt in the position partially ascertained by the examina-

tion previously mentioned. About one inch of the left tube could be felt close to the uterus, the rest of the tube appeared to be lost or spread out upon the tumour. Here and there small and recent clots of blood entangled in omentum and lying in between the folds of bowel were to be seen. These had evidently come from the sac or cyst wall, in which more posteriorly several small oozings were observed. Shreds of fibrin attaching the cyst wall to the surrounding parts were quite numerous and evidently but a few days old.

A trocar withdrew a quantity of unmeasured slightly tinged with blood fluid from the cyst. The puncture bled so freely that a finger was introduced to explore the contents and which was found to be a living child. The opening was quickly enlarged and the foetus extracted. This was followed by the most awful hæmorrhage I have ever seen and was only controlled by aortic compression. The cord was attached about one and a half inches to the left of the median line to the roof of the cavity. The placenta was wholly attached above and the thickness of the placenta and cyst wall in parts did not measure more than one-fourth of an inch and seemed to be but peritoneum and placental tissue.

Any attempt at hæmostasis by ligature, forceipressure or cauterly seemed to increase the hæmorrhage. The sac was sewn by its opening to the abdominal opening, pressure on the aorta being maintained in the meanwhile and the cavity tightly packed with iodoform gauze, as were also the united openings. This stopped any active hæmorrhage. The child after delivery made a few feeble respirations and died. No attempt was made to extract the placenta.

The patient recovered well from the effects of the anæsthetic, considering the amount of blood lost.

For several dressings in which the gauze packing was removed it was found necessary to compress the aorta, and any attempt in detaching the placenta was followed by profuse hæmorrhage.

She continued to improve for ten days, after which symptoms of thrombosis appeared in the left femoral vein, septic in nature. This was followed by pyæmic abscesses. She recovered, however, but did not leave the hospital until October 18th, and is now in fair health.

I am indebted to Drs. McConnell and Perrigo for their able assistance in this case and its after-treatment.

CASE II. This case is of much interest, for it is believed to be now a case of retained foetus. The patient was 30 years of age and had been married for six years. There is a history of a probable miscarriage (of about three months) five months after marriage. Since this she had been attended by a gynaecologist for some uterine disorder. She had enjoyed fair health otherwise and menstruation had always been regular.

On the 12th of September, 1893, she was seen for the first time and complained of pain in the lower region of the abdomen, syncopal attacks and vomiting. There was a slight rise of temperature and pulse rate. She had menstruated during the last week of March, nearly six months previously. About the end of the following May she noticed a slight flow of blood and pieces of skin, as she called them. This was accompanied by violent cramp-like pains, vomiting and fainting. Her friends thought she was dying. She recovered from this attack, but had more or less pain in the abdomen and occasional attacks of syncope until she came under the writer's care.

She was poorly nourished, complained of nausea and vomiting. Pulse was 100 and weak, temperature 100 1-5°. Pressure over the abdomen elicited much pain, and a smooth, immovable, rounded mass was felt in the median line and to the left and in the pelvis. The breasts were hard and tender and the areolæ dark.

By bimanual examination the mass in the pelvis could be felt; it was semi-fluctuant, tender and was harder in consistency in some parts than others. The uterus was apparently to the right and front of this mass and could

not be definitely separated from it. No foetal movement or heart sounds were detected, nor had the patient experienced any sensation of motion. No attempt to introduce a sound into the uterine cavity was made. She was kept under observation for a few days, during which time she improved.

She was admitted to the Western Hospital on September 24th, a little over six months from the date of her last menstrual period. On admission a slight amount of dark fluid blood was seen coming from the vagina; this flow ceased after six hours.

The hospital records state that foetal heart sounds were to be heard. This, however, could hardly have been the case. She suffered from labour-like pains from time to time; these, however, passed off. During the first week of October a large amount of pus was passed from the rectum and has continued to be discharged up to the present time.

Dr. Perrigo advised operation before this occurred, but was not supported by the rest of the hospital staff in consultation. She left the hospital some two weeks later somewhat improved. She was seen at her home shortly afterwards and the condition of the pelvic contents was as follows: The uterus is pushed to the right side and front and its outline can be more easily felt; it is more movable. To the left of and behind the uterus a large mass the size of a full term foetal head may be felt. This is harder at some parts than others and particularly so close to the uterus. Here a rounded nodule or body is situated. Towards the left of the pelvis the mass become more irregular in outline. No crepitation or grating can be elicited on palpation. Pus is discharging from the rectum, from exactly what part cannot be ascertained, but the sinus must be high up.

This patient was seen quite recently and her condition is the same. The mass is hard, more nodular and somewhat contracted. She suffers more or less pain constantly in the pelvis. The rectal discharge continues, but is less in amount. She has not menstruated since March, 1893.

This case was looked upon when first seen as one of extra-uterine gestation. Although perhaps a dermoid tumour might simulate or resemble such a condition, yet the history past and subsequent is that to be expected in the diagnosis formed.

CASE III. This and the following case are instances in which the primary rupture of the tube also caused the death of the embryo. Both were less than three months pregnant.

In one the condition immediately endangered life, in the other the symptoms were masked. Indeed the condition of affairs was not suspected before operation.

In the first of these cases, a young healthy looking woman of high complexion, 25 years of age, was sent to the hospital by Dr. Tatley, complaining of pain in the right iliac region and was supposed to be due to some chronic, probably gonorrhœal, inflammation of the tube and ovary on that side.

She was admitted on May 23, 1894, with this history: She has had four children, and in September, 1893, twelve months after the birth of her youngest child, she first complained of pain on that side. This had been continuing up to the past few weeks, when it became worse.

Two days before admission she felt a sudden sharp pain in the side; this was accompanied by vomiting and she had to go to bed. There was no marked history of concealed hæmorrhage to be elicited. The pain continued for a few hours and ceased.

When first seen she was in good condition, colour and pulse normal, temperature half a degree above normal. There was slight resistance to and pain on pressure over the part complained of.

I have omitted to state that she had been regular and did not suspect that pregnancy existed. However, she is not very positive as to the occurrence of menstruation or not and I hardly like to accept her statements as correct. On examination per vaginam an enlarged ovary and tube

was thought to be present on that side and to be accompanied by adhesions.

On May 28, five days after admission, the abdomen was opened and a large amount of clotted blood was found filling the pelvic peritoneal cavity. The tube on the right side was enlarged and ruptured on its posterior aspect. The rupture was large and an ordinary pencil could be inserted through it. It was ragged and a mass of chorion, etc., protruded through it. Villi were found in abundance. The left tube presenting signs of old inflammation was removed also. Recovery was uneventful.

CASE IV. In this case the internal hæmorrhage must have been great. The patient was 34 years of age, had had five children and no miscarriages. Two years before, at the time of her accouchement, she had a severe post-partum hæmorrhage. Menstrual history negative.

She was seen for the first time on February 19, 1894, and was then about eleven weeks pregnant, as she thought. Three-quarters of an hour before, while engaged in her house-work, she felt something give way on the right side and she fainted with pain. Vomiting set in and she became so bloodless and weak that the last rites of the church were administered.

On examination she was without colour to the lips, buccal mucous membrane almost bloodless, sighing and gasping for breath. The pulse attained a rate of 150 per minute when first seen and was hardly perceptible at the wrist. Speech was hardly audible. She had frequent hiccough and complained of slight pain over right iliac region, where some fullness was to be felt on palpation and dullness on percussion. Some slight fullness was also felt here bimanually. However, but little attempt at thorough examination was made and the patient was disturbed as little as possible. Her condition improved slightly that night, but next morning she again collapsed and was even in a more serious condition than at first and felt more pain.

Dr. Perrigo saw her with me on the second day and con-

curred in the necessity for immediate operation. This was declined and she again gained strength and again had a fit of collapse on the third day. After this she slowly and surely gained and on the fourth day had slight intermittent pain, followed by a discharge of blood and decidua. There had been no flow of any kind for the preceding eleven weeks. A large mass occupied the pelvis, fixing the uterus, and it was thought that the ovary and part of the tube could be felt on the right side.

She made a tedious but complete recovery, and nothing more than an induration and slight enlargement is now to be felt about the broad ligament.

Comment.—In the first case is an example of the most dangerous form of extra-uterine pregnancy that could exist. It has been said by many a writer that the rupture of a gravid tube is one of the most dreadful calamities to which women can be subjected, and anyone who saw the loss of blood in this case will agree with the saying.

Women have been known to collapse and die so suddenly that poisoning has been suspected and the case only cleared up on autopsy.

Could this case have gone to full term, this would have been impossible; rupture was impending at the time of operation. In any case in which a diagnosis can be made, or even if the condition be suspected, the only logical and humane treatment is operative, and that as soon as possible.

If another case of like nature be encountered by the writer the sac would be opened by the cautery knife, with the hope of less hæmorrhage.

The compression of the aorta was most effectual here, and it is to be regretted that this means has not been more employed, especially in controlling post-partum hæmorrhage. It was recommended by Bishop in the *Lancet*, 1893, and for the past three years the writer has used it with invariable results.

The removal of the placenta is advised when attached

above. In this case it would have taken with it the roof of the sac.

In the second case it is to be regretted that an early operation had not been resorted to. The present condition of the sac communicating with the bowel would complicate the usual state of affairs greatly, and it is hardly to be expected that the patient in her present condition can enjoy perfect health and be free from further danger. However, the result might have been worse.

Whether this case had a primary rupture into the layers of the broad ligament or into the peritoneal cavity is mere conjecture, but the history would incline me to favour the former situation.

In the third case the history of cessation of menstruation is wanting, but this might occur in any case and would perhaps be misleading to the attending physician. Another feature of this case is the absence of the marked state of collapse usually seen in this accident.

The interesting points in Case IV. lie in the extreme collapse observed, the occurrence of further hæmorrhages with eventual recovery, and the absorption of the greater amount of clot.

A CASE OF PERFORATED GASTRIC ULCER— OPERATION—RECOVERY.

By ROBT C. KIRKPATRICK, M.D.,

Demonstrator of Surgery, McGill University, Surgeon to Montreal General Hospital.

As this case is one of more than usual interest, I bring the patient before you to-night to show how perfectly recovery has taken place. The history is as follows, and for it I am indebted to my house-surgeon, Dr. Byers.

Fanny R., aged 24, native of Ireland, servant girl by occupation, was admitted into the Montreal General Hospital on Nov. 17th, complaining of "pain in the abdomen and shoulders."

Patient gave the history of having been seized on Thursday morning (2 o'clock), Nov. 15th, with severe pain in the epigastrium and lower substernal regions, which caused her to suffer intensely, and along with this she vomited "dark coloured" material for several hours. The condition, except for additional pain felt in the shoulders, continued thus unabated in spite of treatment, and she entered the hospital on Saturday afternoon, Nov. 17th. Was uncertain when asked as to the condition of her bowels during this time.

In addition to the above, patient gave an indefinite history of having been under treatment two years before for shortness of breath on exertion, pallor, headache, amenorrhœa, etc.; symptoms of chlorosis, and of having had during the month previous to the onset of her major illness, pain in the region of her stomach, sometimes severe, and coming on immediately after eating, and sometimes felt between the intervals of taking food. Walking, particularly up-stairs, rendered the condition worse, and the pain seemed to have grown more severe during the few days preceding the attack of Thursday, Nov. 15th. Occasionally, the patient said, she had "felt sick at her stomach," but

she never had vomiting of blood, nor did she at any time notice anything peculiar about her motions. Of late, also, her appetite had been very poor and capricious, and her strength and general health much impaired.

When seen first after admission, patient was lying in bed in the dorsal position, with her legs drawn up, moaning, and in great distress.

Her face was pallid, and lips dry. She complained of pain in the abdomen, particularly in the epigastric region and in the shoulders, especially the left. The tongue was brownish, fissured and dry in the centre, whitish and moist at the edges. Sordes present on the teeth.

She complained somewhat of being thirsty, but was not sick at her stomach, and had no inclination to vomit.

The abdomen was prominent and rounded, and evenly distended.

Tenderness general, but particularly marked in the epigastric and innermost portion of the right hypochondriac regions. Tenseness of the abdominal walls was not great, and not more marked in any special region. No evidences of tumour in any situation. Percussion revealed a general tympanitic note, which mounted up and completely obscured the liver dulness. The urine was high-coloured, with thick cloudy deposit, spec. grav, 1.032; reaction acid; albumen present in appreciable quantities; casts and leucocytes found on microscopical examination. Respiratory and vascular systems normal; temp., 101.5; pulse, 120; respiration, 44.

As the patient did not improve during the night, it was decided; after consultation with Dr. Armstrong, that the condition was one of perforated ulcer of the stomach and that the only hope was immediate operation. Accordingly the operation began at 2 o'clock in the afternoon; the details are as follows:

An incision was made from the ensiform cartilage to within a short distance of the umbilicus. On opening the peritoneum a small quantity of gas escaped and the anterior

wall of the stomach presented. This was found to be attached to the parietes by slight adhesions, which were easily broken down by the fingers.

On disturbing the viscera thus, more gas escaped from the abdominal cavity, and while assisting me to break down the adhesions, Dr. Armstrong's finger slipped into the hole in the stomach. Gauze pads were immediately packed around the opening in order to prevent escape of the stomach contents, and then Dr. Armstrong withdrew his finger. The stomach was drawn up through the wound and examined. The ulcer was situated in the anterior wall of the stomach, a little to the right of the cesophageal line, and more toward the superior than inferior gastric border. The opening was a little larger than a five cent. piece, and was closed with a continuous Czerney-Lembert suture after trimming the ragged edges with a pair of scissors. The Lembert suture was continued for about half an inch toward the median line, in order to invert a portion of stomach wall that looked as if ulceration might be going on inside. The abdomen was then sponged out, a rubber tube inserted into the right flank and the edges of the incision brought together by through and through stitches of silkworm gut. Irrigation of abdomen was not used.

During the operation the patient's pulse became very weak, but on being put back to bed she came quickly out of ether, with little pain or vomiting. The pulse improved quickly, stimulation being required on only one occasion when strychn. gr. $\frac{1}{80}$ was given. Exudation was very slight only 31 ss. clear fluid coming away, so that the drainage tube was removed on the following morning, after 20 hours. All food by mouth was prohibited at first, patient's strength being maintained by nutrient enemata of beef tea and peptonized milk. On the third day small quantities of milk were given by the mouth. The patient was dressed on Nov. 23rd and again on Dec. 3rd, when the stitches were removed. The wound healed by first intention. Slight suppuration occurred in the upper part of the incision, and a small sinus appeared five weeks after the operation.

This appeared to be due to the working forward of a bit of deep gastric suture, which could be felt as a rough body at the bottom of the sinus. The patient sat up, out of bed, on Dec. 19th, and since then her general health has been improving steadily. The temperature was normal on the thirteenth day following the operation. The sinus has now healed and the patient is perfectly well.

The operation has been performed a number of times, but so far very few successful cases have been reported. At the meeting of the British Medical Association last summer (*British Medical Journal*, October 20, 1895), the subject came up for discussion, and at that time only five successful cases had been reported. The operators were Taylor, Krieger, Morse, Maclaren and Gilford. M. P. Michaux, of Paris (*Bulletin Med.*, Oct. 24, 1894) reports a successful case and mentions another, that of Roux, of Lausanne. Lastly R. H. Bouchier Nicholson reports a case (*Brit. Med. Journal*, Nov 3 and Dec. 22, 1894). This makes a total of nine cases reported up to date,

WOUND OF THE STOMACH WITH A JACK-KNIFE.

By D. W. Ross, M.D., Florenceville, N.B.

Mrs. S. is a married woman, 41 years of age, and the mother of seven children, The youngest child is only seven months old. She is a thin, but strong, hardworking woman. Her husband had recently been an inmate of an insane asylum.

On Tuesday evening, November 6, 1894, he sat by the cylinder stove and sharpened his jack-knife upon it. This knife he had used as a tobacco knife and for all other general purposes for which a farmer uses a knife. His wife went into the next room and stooped over a trunk to get something. As she went in her husband followed her, and when she was stooping he stabbed her in the abdomen with the knife.

After he pushed the knife in he gave it a rip up. The woman spoke to him and asked him what he did it for. She then left the house and walked, with her baby in her arms, one-eighth of a mile to the nearest neighbour's house. Here she lay till medical attendance arrived. The next evening I arrived, and upon examination found some viscus protruded and wounded, with dark-looking thick fluid pouring out of the wound.

At that time, twenty-four hours after being wounded, she showed no signs of shock or collapse. Pulse 91; temperature 102°. Although there did not appear to be much hope I decided to do what I could to give her a chance for her life. Her supposed ante-mortem statement had already been taken, and I was told by the magistrate that there was only one chance in a thousand to save her life. After making the necessary preparations I commenced to cleanse the viscus. This was no easy task, for the woman had no doubt lived a long time without taking a bath.

I decided that the viscus was the stomach on the following grounds:

1. The contents were potatoes, onions and bread—the remains, evidently, of an undigested meal—sweet and no faecal odor.

2. At the underneath part of the viscus was a part of the pancreas.

3. At the lower convex border was a large artery.

4. The thickness of the muscular coat as seen in the wound.

5. After removing the contents the shape was characteristic.

6. There were no longitudinal bands. The viscus was not thrown into folds.

7. There were no glandulæ epiploicæ.

8. There was no faecal odor.

9. The size of the organ was too large to be the small intestine.

The stomach had evidently been wounded with the point of the knife, for on the peritoneal surface the wound was half to three-quarters of an inch in length, while the mucous membrane was only cut to the extent of about one-quarter to one-third of an inch.

Through the gastric wound the contents were removed with a probe. The stomach walls were found to be thick, infiltrated, œdematous, and even brittle.

The wound in the stomach was cleansed and closed with twelve Lembert catgut sutures, turning in about one-half inch of the stomach round and bringing the peritoneal surfaces together.

The stomach was so congested that blood came out along the sutures before they were tied. This was the most difficult part of the operation.

At the lower end of the wound the needle pierced an artery and it was quite difficult to control the bleeding. To do this I passed a small needle and catgut on each side of the spouting point, but when I tried to tie them to close

the artery the blood poured out along these sutures. It seemed as if I had pierced a vein. Artery forceps were then tried, but would not control it, because the tissues seemed to give and tear easily. Hot water and pressure stopped it. This was the last stitch put in. They were tied easily till I came to this same suture, when on tying it the bleeding started again. Hot water and pressure stopped it, but took some minutes, and considerable blood was lost. Of course, after all, the loss was nothing, but it looked large. The stomach and skin on which it rested were then cleansed with a weak carbolic solution. The stomach could not be returned through the original wound. With a scalpel and a grooved director lying on my finger I enlarged the wound till the stomach dropped into the abdomen. There appeared to be considerable bloody effusion in the peritoneal cavity, but I did not think it necessary to wash it out.

The wound in the abdominal parietes was now seen to be about four inches long. The original wound could be easily made out. It was about one and three-quarter inches long and had been made about one inch to the left of the umbilicus. The lower end of the wound was nearly four inches below the umbilicus. How the stomach and contents exuded through such a small wound is somewhat of a mystery to me; its position, too, so low in the abdomen. It did not appear to be drawn up; it lay right there at the bottom of the abdominal wound with the sutures to the front. When I saw the position of the external wound I expected the stomach to be drawn up. It was in sight when the wound was closed, and by palpation. I am satisfied it remained there for days. The wound in the abdomen was then cleansed and closed with six silk sutures passing through the skin and peritoneum. No drainage tube used.

The only anæsthetic used was a hypodermic injection of morphia, gr. $\frac{1}{4}$, and atropine, gr. $\frac{1}{100}$. During most of the suturing she slept. Handling the stomach did not appear

to cause any uneasiness and she did not appear to have much feeling there. It did not cause vomiting; she only vomited a little when first stabbed. This was noted before she went under the influence of the morphine. She woke up before the operation was concluded, but did not appear to suffer much; she complained most when the abdomen was being sutured.

The operation was commenced at 10.30 p.m., twenty-five hours after she had been stabbed; it was finished at 1 o'clock. During the operation her pulse was 120, after dressing the wound it was 100 and temperature 101°. At 4 o'clock a.m. her pulse was 96 and temperature 100°. She was now ordered to eat nothing except one teaspoonful of hot water every two hours and put on small quantities of opium.

The subsequent history of the case is as follows: November 9, temp. 102°, pulse 91. Allowed one teaspoonful of chicken broth every three hours.

November 11, pulse 100, temp. 101°, tongue dry. There was no tenderness or evidence of general peritonitis. There was a marked gangrenous odour about the room and the breath of the patient. Carbolic acid had to be sprinkled freely to cover it. She was allowed to-day two table-spoonsful of chicken broth and a rectal injection of iij. of peptonized milk. To allay thirst a rectal injection of hot water was ordered and proved efficacious. The stomach could easily be felt enlarged still; wound was doing well, no suppuration; iodoform dusted on and dressed.

November 13, temp. 100½°, pulse 108; no gangrenous odour, no evidence of general peritonitis. Wound examined and found suppurating and edges separated where the jack-knife had made the cut. One stitch was taken out and a large quantity of pus was pressed out of the left side. It seemed to come out of the hole left by the removed suture, and not from the wound. There seemed to be a pocket of pus to the left of the wound. Tr. benzoin

co. poured into the wound and dressed again. More liquid food and drink allowed.

November 14, pulse 102, temp. 100 1-5°; less pus.

November 16, pulse 100, temp. 100°; less pus. All the stitches removed. Patient calling out to be taken home; ordered not to sit up.

November 18, pulse 96, temp. 99½°; very little pus. The part of the wound made by the surgeon had now healed by first intention, the rest healing by granulation. The woman now begs to go home, declares she will go; I forbade her sitting up. While I was getting my horse out she dressed herself, and before I was two miles away she walked about one-eighth of a mile to her own house. No one would help her or haul her, for they would not take the responsibility. On her way, as she passed a water pail, she satisfied her desire for cold water. She drank a large quantity, in fact as much as she wanted. She acknowledged afterwards that it must have been as much as a quart and that it hurt her after she got home. Her home was a roughly boarded, unfinished house, with three rooms, bitterly cold. Here she was in the month of November, just out of bed, with seven children. Sanitary conditions were the very worst possible. The reason, of course, she wished to get home was so she could do as she liked. At her neighbour's house they carried out the physician's directions and took the best of care of her. She wanted to get where she could eat and drink what she chose.

November 21, pulse 84, temp. 99°; sitting up holding her baby; wound healthy. Vegetables and meats forbidden.

November 25, pulse 84, temp. 99 4-5°; symptoms of a severe cold; wound doing well.

November 30. pneumonia. Wound clean. No pus. Appropriate treatment for lung complication ordered.

December 6, nearly recovered; wound doing well. Granulations touched with blue stone.

December 6, about recovered and wound considered

healed. After the 10th day she never lay down except at night and had just what she chose to eat and drink. She is now as well as anyone.

December 13, travelled 26 miles to give evidence at the trial of her husband. She felt real well and appeared in a normal condition. This is the last time I have seen her.

This case shows either great individual capacity for recovery, or else it is not so dangerous to open the healthy abdomen as has been thought.

It also teaches me that it is very difficult to decide definitely whether an injured person will survive or not, and to do my duty even if an operation under great difficulties is indicated.

A sin of omission may be as bad as one of commission

Retrospect Department.

RETROSPECT OF PHARMACOLOGY AND THERAPEUTICS.

BY A. D. BLACKADER, M.D.

Professor of Pharmacology and Therapeutics and Lecturer on Diseases of Children,
McGill University.

On the Therapeutic Value of Hydrastinine Hydrochlorate.—(*University Medical Magazine*, June, 1894.)

By H. C. Wood, M.D.—Among the more recent additions to the United States Pharmacopœia is a salt of the artificial alkaloid, first produced by Martin Freund, by oxidation of hydrastine. It is a yellow, crystalline, somewhat deliquescent powder, with comparatively slight taste and very soluble in water. It seems to have a wide physiological and therapeutic range. Its properties have not yet been fully investigated, but it bids fair to become an important addition to our medicinal agents. It appears to have a depressing action on the spinal cord. It contracts the blood vessels apparently by direct action upon their muscular coats. It has also a stimulating action upon the heart, and may prove a valuable remedy in cases of heart weakness.

Its influence as a calmative depressant of the brain and spinal cord, conjoined with its stimulant action upon the heart and arterioles should render hydrastinine a valuable remedy in cases of general feebleness and lack of circulatory power occurring in women and men. When to these powers is added the influence it possesses over the uterus, its probable importance grows. In all forms of menorrhagia, whether due to simple atony, to fibroids, or even to more severe organic diseases, hydrastinine has a very distinct therapeutic action. In Dr. Wood's experience it is distinctly more powerful than ergot; the arrest of hæmorrhage is so prompt that it can hardly be due to vascular contraction alone, and there seems no reason to doubt that

the alkaloid is a powerful ecbolic. (I would desire here to urge a careful trial of this drug in suitable cases. In several cases in my own practice it has given me very excellent results.—A. D. B.)

On the Therapeutic Value of Salicylate of Strontium.—(*British Medical Journal*, January 5, 1895, and *International Medical Magazine*, February, 1895.) By H. C. Wood, M.D.—The writer calls attention to this drug as a valuable addition to every-day therapeutics. He says that after using the lactate, iodide and bromide of strontium freely, he came to the conclusion that the strontium element materially modifies the action of the haloid salts on the alimentary canal. This suggested the possibility that strontium might modify the action of salicylic acid. From experiments upon dogs he determined that in therapeutic doses it elevates the arterial pressure, and in large doses is less depressing than either the sodium, or even the ammonium salt. He has since then used it freely in practice, and finds that in doses of five grains it is one of the best intestinal antiseptics; in doses of ten or fifteen grains it acts very decidedly as a salicylate in gouty and chronic rheumatic conditions, without producing disturbance of the stomach. It appears to be less active in acute cases than is the ammonium salicylate, but in chronic gouty conditions with lithæmia it appears to be the most valuable drug that we have.

A New Method of Treatment of Pulmonary Phthisis—(*The Medical Magazine*, July, 1894, and the *Medical Chronicle*, November, 1894.)—Dr. Carasso, of Genoa, describes a treatment of phthisis by continuous inhalation of oil of peppermint. He claims that it is absorbed into the system, exerting a powerful antiseptic action on the whole organism and is eliminated again through the lungs.

His method of treatment is as follows: 1, The almost continuous inhalation of oil of peppermint; 2, the administration of creosote by the mouth in as large doses as may be permissible; 3, systematic overfeeding, milk in large quantities, up to one or two litres of fresh or sterilized

milk daily. Meat and generous wines are also advised. All possible hygienic conditions are to be observed. Under this treatment the bacilli disappear from the sputum, the cough and expectoration become less frequent, the night sweats less frequent, and the nutrition rapidly improves.

The Use of Medullary Glyceride in Conditions Attended by Paucity of the Red Corpuscles and Hæmoglobin.—(*New York Medical Journal*, January 12, 1895.) By A. McLane Hamilton, M.D.—The results of the use of bone marrow by Frazer and others have induced the writer to experiment with this agent during the past few months, and he has been impressed with its efficacy in certain conditions dependent upon a depraved condition of the blood. The cases selected for treatment with bone marrow presented varying forms of red corpuscle poverty, with diminution of hæmoglobin, most of which were obstinate and had resisted arsenic, iron and other hæmians. In every case a careful determination was made before, during and after treatment, of both the red corpuscles and the amount of hæmoglobin. In two or three cases poikilocytosis was present. Under the treatment a great and rapid proliferation of the red corpuscles was noted, in some cases the normal number being greatly exceeded. He thinks it reasonable to ascribe this rapid and extraordinary increase to the direct influence of the medullary extract. The immediate improvement in the state of the blood, and the subsidence of the symptoms are no less wonderful than the improvement which follows the use of thyroïdal extract in myxœdema, though the gain is more permanent than in the latter. He made use of two forms of marrow, that obtained from the long bones, which was given raw, and that from the short ribs, which was given as a glyceride. He thinks his best results were obtained from the marrow contained in the ribs of a young animal. The coarse marrow from the long bones contains a great deal of fat which, while beneficial in itself, does not contain the specific virtues to the same extent as the finer medullary substance. The glyceride was administered

alone, and as a rule the good effects were apparent within a few days. In only one case did it fail.

A Study of Erysipelas and Its Curative Influence upon Granulating Surfaces and upon Sarcomatous Growths.—(*New York Medical Journal*, December 29, 1894.) By Julius Selva, M.D.—In this paper the writer gives the results of accidental and artificial inoculations with the streptococci of erysipelas in cases occurring in the Boston City Hospital. His conclusions are as follows: 1, The general infectious nature of erysipelas and its dangers should always be borne in mind; marked prostration, cerebral symptoms and septicæmia are not infrequent complications; 2, accidental erysipelas has a curative influence upon granulating surfaces, but its use in the treatment of ulcers would be unjustifiable; 3, in the treatment of neoplasms by inoculation with the streptococci of erysipelas we have a therapeutic agent which should not be used indiscriminately; 4, further investigation with the toxins of erysipelas are necessary for the resolution of this important problem.

Treatment of Inoperable Tumours with the Toxines of Erysipelas and the Bacillus Prodigiosus.—(*American Journal of the Medical Sciences*, July, 1894.) By William B. Coley, M.D.—The writer in this interesting paper states that he was early convinced of the danger attending an attack of erysipelas from inoculation, and of the fact that a certain portion, if not all, of the improvement was due to the toxic products of the streptococcus, rather than to the germ itself. Hence in all these later cases he has used toxins rather than the living bacteria. He has found also that the toxins of the bacillus prodigiosus greatly enhance the curative action of those of the streptococci erysipelas. He says in view of the results which he has obtained from the toxins of erysipelas and prodigiosus, which can be used with perfect safety and scientific accuracy, he considered it inadvisable to expose a patient to the risk attending an attack of erysipelas. He formulates his conclusions as follows: 1, The curative action of erysipelas upon malignant

tumours is an established fact ; 2, this action is much more powerful in cases of sarcoma than of carcinoma ; 3, this action is due to the toxins of the erysipelas streptococcus, which may be isolated and used with safety : 4, this action is much increased by the addition of the toxins of bacillus prodigiosus ; 5, the toxins, to be of value, should come from virulent cultures and be freshly prepared.

On the Value of a Solution of Antipyrin as a Hæmodynamic.—(*Medical News*, December 15, 1894.) By Roswell Park, M.D.—The writer says that during the winter of 1885 his attention was called to the efficiency of a solution of antipyrin as a hæmodynamic. Carefully tested, he found that it also had distinct antiseptic properties, comparing favorably in this respect with most of the anilin derivatives in use. Experimenting with animals, he found that it could be used as an antiseptic styptic anywhere, upon the bowel, brain surface, or anywhere else, causing no symptoms that made him regret its use. He now keeps always on hand a standard sterilized five per cent. solution using it as a spray, a compress, or an injection. While it has not sufficient power to contract vessels that spurt, it almost instantly blanches and checks oozing from any surface from which blood is escaping just fast enough to be an annoyance. Moreover, it is practically unirritating. He says that he has never known harm to occur from its entrance into any part of the body, where it was not called for. He also recommends the use of the same solution in certain cases of inflammatory occlusion of the nose. To relieve temporary smarting and irritation, a weak solution of cocain may either be used a few minutes before the antipyrin, or the two may be combined. In certain acute catarrhal conditions of the upper air passages and throat, there is nothing which appears to him to give early relief more satisfactorily.

Chloralose in the Treatment of Night Sweats.—In an editorial in the *New York Medical Journal*, December 8, 1894, the writer calls attention to an article by J. Sacaze (*Nouveau Montpellier Médical*, October 6), claiming for

chloralose distinct value in the treatment of the night sweats, as well as in the sleeplessness of chronic pulmonary disease. In a few cases improvement in this respect continued after a few doses only of the remedy, had been taken, but, as a rule, on its disuse the night sweats returned. In a few exceptional cases instead of inducing sleep it produced excitement and disturbing dreams. In a number of cases of other chronic pulmonary diseases, accompanied by night perspirations, the remedy also proved effectual. The writer says that we do not yet know whether the drug acts by direct action on the sweat glands or through the medium of the nervous centres. He suggests, however, the possibility that in pulmonary cases it may act by some modification of the phenomena of infection taking place within the lungs.

Diabetes Treated with Extract and by Graft of Sheep's Pancreas.—*British Medical Journal*, December 8, 1894. By P. Watson Williams, M.D.—While the question of the treatment of pancreatic diabetes by means of the pancreas or extracts is a matter of special interest, and more especially while the possibility of treating pancreatic diabetes by means of grafts of pancreas is likely to receive some attention in the future, the writer desires to place on record the results obtained by him in the British Royal Infirmary. His first case, a boy of 15 years, was in good health up to three weeks before admission. At that time he was weak, rapidly wasting, passing an average daily amount of urine amounting to seventy-seven ounces, containing three thousand grains of sugar and two and a half per cent. urea. After altering his diet he was given first freshly minced pancreas for some days, afterwards a freshly prepared extract of pancreas, and afterwards an extract hypodermically, with practically no alteration in the symptoms. Codeine and morphine were also given, but soon lost their slight control on the amount of sugar excreted. After five months of such treatment, portions of a pancreas taken from a freshly slaughtered sheep, under strictly aseptic precautions, were grafted into the sub-

cutaneous tissue of the breast and abdomen, the whole operation being completed within twenty minutes of the death of the sheep. Although the incisions appeared to be quiet healthy, coma set in notwithstanding the free use of alkalis, and the lad died on the third day after the operation. At the necropsy the patient's pancreas was found small, shrivelled, and appeared to be little else than fibrous tissue. In a second case, which appears to have been of a comparatively mild type, fresh pancreatic extract, both hypodermically and by the mouth, produced no amelioration whatever.

On the Diuretic Value of Calomel and the Unusual Tolerance of it in a Case of Cardiac and Renal Disease.—(The Medical News, December 5, 1894.) By William Pepper, M.D.—In this paper the writer points out the value of the diuretic action of calomel under certain conditions of heart failure. In a severe case, of which he details the particulars, with grave cardiac disease, embolism of kidneys and spleen, and a general septic condition, the improvements were at times simply marvellous. The most striking feature in this treatment was the influence of the calomel. This drug was used repeatedly with marked benefit. Under its influence there was invariably a great increase in the quantity of the urine secreted, and, in consequence of this, relief of dropsy and of the general symptoms. The effect was obtained only when the dose of calomel was a large one, and it never lasted more than a week or ten days. Small doses failed entirely; the greatest daily excretion of urine, one hundred and forty fluid ounces, occurred under the influence of three grain doses administered every six hours. It was equally evident that the drug was most active when dropsy was marked, and when the bowels were kept in check. Owing partly to the quantity of morphine administered, the calomel did not appear to have any purgative tendency, but from the comparative ease with which the patient was purged with other remedies, this explanation is not entirely sufficient. The rapid loss of the diuretic power after several days'

action was well marked, and has been so frequently observed by others, that it seems an established fact. After a few days' interval the calomel acts as effectively as before. The dose should be not less than one grain every three hours, and during its use the bowels should be controlled by opium, and the constant use of antiseptic mouth washes should never be neglected.

On the Use of Antipyrin in Large Doses.—(*British Medical Journal*, December 1, 1894.) By T. McCall Anderson, M.D.—The writer advocates the use of very large doses of antipyrin in certain neurotic cases. He says that personally he has had hardly any experience of its deleterious effects, at least of a serious nature, when employed with due precautions. He details the case of a boy, aged nine years, who had suffered for the previous two and a half years from severe fits of a hystero-epileptic character, sometimes as many as thirty or forty attacks occurring in a day. The treatment consisted of rest in bed, regulation of the bowels, and the exhibition of antipyrin in gradually increasing doses, commencing with five grains thrice daily. In three weeks he was taking twenty-five grains three times a day, with complete cessation of the attacks. The dose was then slightly lowered. The lad was dismissed from the hospital in two months as quite well, and it was reported later that there had been no recurrence of the attacks. In another case, a lad of thirteen years, suffering from choreic movements of the right side, received, under gradually increasing doses, as much as fifty grains thrice daily. He left the hospital in six weeks quite well. In another very violent case improvement was very rapid under similar treatment. Dr. Anderson sums up his experience in the following aphorisms: 1, Antipyrin is not the dangerous drug which some observers have led us to suppose; 2, it may be given with safety in large doses, but the initial dose must be small and must be slowly and cautiously increased under careful supervision; 3, in large doses it often yields surprisingly good results, and in chorea it is the only medicine from which cures may confidently be expected.

Reviews and Notices of Books.

Notes on the Newer Remedies, their Therapeutic Applications and Modes of Administration. By DAVID CERNA, M.D., Ph.D., etc. Second edition. Enlarged and revised; pp. 250. W. B. Saunders, Philadelphia. 1893.

The rapid progress of pharmacology makes it almost impossible for the ordinary, or even the special practitioner, to keep himself thoroughly *au courant* with the newer remedies which chemists and pharmacists place at his disposal. The author in preparing these notes has endeavoured briefly, but succinctly, to place before his readers a brief description of the chemistry, pharmaceutical and physiological properties, and the therapeutics of all the newer remedies whose usefulness has been more or less ascertained by clinical investigation. The success of his efforts is attested by the appearance of this second edition. The work has been thoroughly revised, many of its articles rewritten, and all the more recent physiological and therapeutic knowledge concerning the newer drugs has been incorporated in this edition. We can recommend the work for its accuracy, and the useful character of the information it contains. A.D.B.

Transactions of the American Dermatological Association at its Eighteenth Annual Meeting held at Washington, D.C., May 29th, 30th, 31st and June 1st, 1894, in connection with the Congress of American Physicians and Surgeons. Official report of the proceedings by Charles Warrenne Allen, M.D., Secretary. New York: Press of Geo. L. Goodman & Co. 1894.

The following are the contents :

Thyroid Feeding in Diseases of the Skin. By Dr. George Thomas Jackson.

The Rare Forms of Alopecia. By Dr. G. H. Fox.

A Case of Favus of the Head and Body. By Drs. J. Abbott Cantrell and Emanuel Stout.

Adeno-Carcinoma of the Skin originating in the Coil Gland.
By Dr. J. A. Fordyce.

The Question of Contagiousness of Molluscum Contagiosum.
By Dr. Henry W. Stelwagon.

Ichthyosis Congenita (so-called Harlequin Foetus). History of a Case still living. By Dr. Samuel Sherwell.

Angioma Serpiginosum and some other Dermatoses. By Dr. J. C. White.

The Protozoa-like Bodies of Herpes-Zoster. A Contribution to the Study of Psorospermiosis. By Dr. M. B. Hartzell.

Cold as an Etiological Factor in Diseases of the Skin (with a Report of Cases.) By Dr. William Thomas Corlett.

Acquired Idiosyncrasy for Quinine, showing peculiar Cutaneous Manifestations. By Dr. Charles W. Allen.

A Case of Symmetrical Cutaneous Atrophy of the Extremities. By Dr. Edward B. Bronson.

The Relation of Impetigo Herpetiformis to Pemphigus Vegetans. Dr. Zeisler.

Report of the Statistical Committee.

Transactions of the College of Physicians of Philadelphia. Third Series. Volume the Sixteenth. Philadelphia. 1894.

The following papers are contained in this volume :

Discussion on the advisability of the registration of Tuberculosis.

Hydrophobia in the United States in the Last Five Years ; with Suggestions as to Treatment. By Chas. W. Dulles, M.D.

Round-celled Sarcoma of the Anterior Mediastinum ; Extensive Metastases, including the Brain, both Choroid Coats, Oculomotor and Optic Nerves, and External Ocular Muscles. By Arthur V. Meigs, M.D., and G. E. de Schweinitz, M.D.

Successful Simultaneous Triple Amputation. By Henry R. Wharton, M.D.

A Further Communication on the Results of a Bacteriological Examination of the Pipettes and Collyria Taken from a Treatment Case used in Ophthalmic Practice, with the Effects of Inoculations. By G. E. de Schweinitz M.D., and E. A. de Schweinitz, Ph.D.

Hysterectomy for Other Conditions than Fibroid and Malignant Tumors. By Charles B. Penrose, M.D.

Speech Without a Larynx. By Harrison Allen, M.D.

Excision of the Entire Right Clavicle for Tumour. By John Ashhurst, Jr., M.D.

Vitiligo Involving the Whole Surface of the Body. By Henry R. Stelwagon, M.D.

Cæsarean Section and Symphysiotomy for the Relative Indications. With report of cases. By Edward P. Davis, M.D.

Further Remarks on the Occurrence of a Form of Non-albuminous Nephritis other than Typical Fibroid Kidney. By D. D. Stewart, M.D.

Leprosy.

Acute Appendicitis. By John B. Deaver, M.D.

On the Reactions of Nucleo-albumin (Erroneously Styled Mucin) with the Commonly Employed Urinary Albumin Tests; the Difficulty of Distinguishing these Reactions from those of Serum-albumin, Globulin, etc.; Remarks as to the Occurrence of a Normal Constant Albumin-trace in the Urine. By D. D. Stewart, M.D.

A New Hematokrit and a New Technique. By Judson Daland, M.D.

Note in Regard to Fractures of the Humerus at the Elbow-joint. By Charles W. Dulles, M.D.

Chronic Valvular Disease of the Heart; a Study from Clinical Observations of 1024 Cases. By Thomas G. Ashton, M.D.

Treatment of Typhoid Fever. By Charles W. Dulles, M.D.

Further Observations upon the Etiology, Diagnosis and Treatment of Acute and Chronic Appendicitis; with the Report of Sixty-one Chronic Cases Operated Upon, with One Death. By John B. Deaver, M.D.

The Work of the Gynæcological Clinic of the Hospital of the University of Pennsylvania, 1893-1894. By Charles B. Penrose, M.D.

Note on Strontium Salicylate. By H. C. Wood, M.D.

A Pompeian Catheter. By Judson Daland, M.D.

Remarks on Fac-similes of Nineteen Peruvian Skulls Illustrating Ancient Trephining. By Charles W. Dulles, M.D.

Bibliography.

The Diagnosis and Treatment of "Floating Kidney."

By Dr. R. Harvey Reed, M.D., (University of Pennsylvania) Columbus, Ohio. Reprint from Columbus Medical Journal, April, 1894.

Notes on Movable Kidney and Nephrorrhaphy.

By George M. Edebohls, A.M., M.D. Read before the New York Obstetrical Society, December 4th, 1894.

Three Cases of Uterus Bicornis Septus; with Report of Operations performed upon them.

By George M. Edebohls, A.M., M.D. Reprinted partly from the New York Journal of Gynæcology and Obstetrics, April, 1893; and partly from the Transactions of the New York Obstetrical Society, Jan. 16, 1894.

The Technique of Vaginal Hysterectomy.

By Geo. M. Edebohls, A.M., M.D. From the American Journal of the Medical Sciences, January, 1895.

A New Method for Anchoring the Kidney.

By R. Harvey Reed, M.D., Columbus, Ohio. Reprinted from the Journal of the American Medical Association, December 22, 1894.

Explanation and Demonstration of the Infiltration (Schleich) Method of Anæsthesia—Preliminary

Paper with Ten Illustrations. By H. V. Würdemann, M.D., Milwaukee, Wis. Reprinted from the Journal of the American Medical Association, Dec. 29, 1894.

Canadian Medical Literature.

[The editors will be glad to receive any reprints, monographs, etc., by Canadian writers, on medical or allied subjects (including Canadian work published in other countries) for notice in this department of the JOURNAL.]

PERIODICALS—DECEMBER, 1894.

DOMINION MEDICAL MONTHLY.

A week's work in Gynæcology—Kenneth N. Fenwick, Kingston, p. 193.

L'UNION MÉDICALE DU CANADA.

A travers les hôpitaux de Paris—Jules Jehin Prume, Montreal, p. 617.

THE CANADIAN PRACTITIONER.

- (1.) A case of cysticercus cellulosa of brain—J. M. Forster, Kingston, p. 879.
- (2.) Should antiseptic vaginal douching be made a routine practice during the puerperium?—A. H. Wright, Toronto, p. 883.
- (3.) History of two cases of secondary hæmorrhage and one of delayed hæmorrhage following tonsillotomy—Price Brown, Toronto, p. 890.
- (4.) Sprains and their appropriate treatment—A. Primrose, Toronto, p. 894.

CANADA LANCET.

- (5.) Pachymeningitis hæmorrhagica interna—J. T. Fotheringham, Toronto, p. 101.
- Profuse menstruation—Charles P. Noble, Philadelphia, p. 103.

ONTARIO MEDICAL JOURNAL.

The affinity of gout and rheumatism—R. Shawe Tyrrell, Toronto, p. 151.

Strangulated mesenteric hernia—J. Baugh, Hamilton, p. 153.

THE CANADA MEDICAL RECORD.

Cocaine poisoning—J. B. Mattison, New York, p. 49.

JANUARY, 1895.

DOMINION MEDICAL JOURNAL.

Anti-diphtheritic serum—J. J. Cassidy, Toronto, p. 1.

CANADA LANCET.

- (6.) Puerperal phenomena of influenza—Adam H. Wright, Toronto, p. 133.
- Action of the hydrochlorate of scopolamine on the eye—Thomas R. Pooley, New York, p. 135.
- Severe brain injury, with recovery—A. N. Hotson, Innerkip, Ont., p. 138.

L'UNION MÉDICALE DU CANADA.

- De l'angine diphthérique toxique—Jules Jehin Prunie, Montreal, p. 5.
 Le traitement des maladies des trompes de Fallope et des ovaires—A. Laphorn Smith, Montreal, p. 9.
 A propos d'antitoxine—Charles Verge, Quebec, p. 10.

CANADIAN PRACTITIONER.

- (7.) Laminectomy for fracture-dislocation in the cervical region—
 F. Winnett, Toronto, p. 1.
 Pathology of gallstones, H. Hill, Toronto, p. 8.
 (8.) Some histological changes in the liver in typhoid fever—J. A.
 Amyot, Toronto, p. 12.

ONTARIO MEDICAL JOURNAL.

- Action of antitoxine in diphtheria, p. 186.
 Chorea—Clarence J. H. Chipman, Ottawa, p. 188.
 Notes of four consecutive cases of intubation of the larynx in
 diphtheria—Alfred J. Horsey, Ottawa, p. 191.

(9.) THE CANADIAN MEDICAL REVIEW.

- Recent electro-therapies of goitre, with improvements in
 apparatus—C. R. Dickson, Toronto, p. 1.
 Treatment of Colles' fracture—Wm. Britton, Toronto, p. 5.
 A case of infantile spinal paralysis, W. W. Britton, Toronto, p. 8.
 A peculiar fracture of the clavicle—J. J. Cassidy, Toronto, p. 10.

CANADA MEDICAL RECORD.

- Some obstetrical notes—A. L. Smith, Montreal, p. 73.

(1.) The patient in whom this very rare condition was found was a woman, aged 37, a Canadian of German parents. She had been at the time of her death an inmate of the Hamilton Asylum for over eleven years, and with a history of a previous attack of insanity. She was inclined to be irritable at times, but worked regularly in the sewing-room; bodily health fair. Nothing of interest occurred until March, 1893, when she began to complain of headache and looked poorly, for which no especial cause could be detected. Headache continued unrelieved by treatment. On November 10th she had an epileptoid attack, from which she soon recovered, but on the 13th she had another convulsion, in which she died. At the autopsy, in the arachnoid, and lying in the sulci of the brain, there were found four small cystic tumours about the size of hazel-nuts—at the posterior portion of the right parietal lobe, on the right frontal near the Sylvian fissure, on the

left parietal lobe and at the outer anterior corner of the left frontal lobe. The cysts were not adherent, but were easily rolled out, leaving a depression in the brain substance. No other cysts were discovered in the liver or other viscera. Upon microscopic examination the cysts were seen to be *cysticerci cellulosa*.

(2.) The question should antiseptic vaginal douching be made a routine practice in the puerperium, in order to assist in avoiding the dangers of puerperal infection, is very ably discussed in this paper. The author from his long experience holds a very decided opinion in the negative, thinking that the practice is both useless and dangerous, for the following reasons:

1. Douching disturbs that perfect rest and quiet, (not in a surgical sense, but in a general way,) which is so delicious to a weary and more or less exhausted woman.

2. Douching is unscientific on surgical grounds. The wounds of the cervix and vagina are, as a rule, kept close by the elastic and even pressure of the surrounding tissues. The introduction of suppositories and douching seriously interfere with physiological rest and pressure and materially delay the healing of those wounds. The recumbent posture, with the slight changes required in voiding urine and faeces, is well adapted for drainage.

3. Douching does not lessen the dangers accruing from the presence of bacteria in the vagina. It is generally agreed that in normal cases the vaginal mucus is strongly acid, the acidity being produced by innocuous organisms, which have their habitat in the healthy vagina and which have some restraining, if not destructive, effect on the pathogenic cocci. Vaginal antiseptic injections may interfere with this acidity and thus chemically lessen the resistance of the tissues to bacteria.

4. Douching is actually dangerous by disturbing clots and opening avenues for infection.

Though many of these arguments are theoretical, the weight of evidence goes to show that the hospitals in which

the routine douching is not practiced have the better results. In considering the statistics of modern hospitals, it is necessary to keep in mind the fact that the injections are administered with care and skill, while in private practice they are frequently given in a careless and slovenly way, notwithstanding the conscientious efforts on the part of the accoucheur to guard against such faulty work, and are thus dangerous in the highest degree.

(3.) Case I. A young man aged 22 had hypertrophy of both tonsils. They were removed at one sitting by Mathieu's tonsillotome. Five days later, while stooping over and lifting a heavy weight, blood flowed freely from both tonsils, but which was checked by rest and applications of tincture of iron.

Case II. Boy, aged six. Tonsils removed by Mathieu's smaller instrument. Hæmorrhage only moderate. Four and a half days later hæmorrhage had commenced during sleep; it was arterial but not severe, and was controlled by a strong solution of tannic acid.

Case III. A man. Right tonsil removed by the tonsillotome, and left by the galvano-cautery. The right tonsil bled moderately, the left not at all. Two hours later there was free oozing, checked by applications of pure tincture of iron.

The author has been able to find, including the three here reported, but sixty-four recorded cases of hæmorrhage after tonsillotomy; of these, three were children, aged respectively six, eight and ten years. In two of them hæmorrhage did not occur until four and four and a half days after operation. In the third it commenced early and did not cease for five days. Sixty-one cases were adults and, with three or four exceptions, the hæmorrhage occurred within two days after operation.

(4.) In the treatment of sprains the results to be obtained are (1) early absorption of effused material, and (2) the prevention of adhesions. The most valuable form of treatment is pressure properly applied, after examining the

joint and determining, as nearly as possible, the extent of the injury. If it is the ankle, the foot is placed at a right angle (or if possible less than a right angle) with the leg. Cotton wool (ordinary cotton batting is the best) is applied entirely over the foot from the toes upwards to the middle of the leg. The amount of wool must be considerable, so that it is one inch thick under the bandage. The bandage must be put on as firmly as possible and be applied from extremities up. There is no danger of making too much pressure if there is sufficient wool. Such a bandage gives almost immediate relief by supporting the vessels, so restoring normal circulation, and eventually tends to the re-absorption of effused material. It also keeps the part at rest. At the end of a few days, a week at the longest, the bandage must be removed and passive motion carefully conducted in all the normal directions, then reapply the bandage. At the end of ten days or a fortnight the wool may be dispensed with and a flannel roller will be sufficient. In the majority of cases of severe sprains the individual may be able to use the injured joint for ordinary purposes after the lapse of three weeks.

(4.) This case, a heavy drinker, aged 59, had fallen in the street, and there was a transient crossed paralysis, without nausea or convulsions, affecting sensation and motion of left side of face, and of right arm. When seen the legs had recovered, if affected at all; they were normal in sensation and motion. The tongue was protruded slightly to left side, and the disturbance of speech was not aphasic, but motorial, the tongue and lips being slightly paralyzed. Temperature about 98° F.; pulse about 80 and regular. Arteries (radial) stiffened, but not calcareous, and tension not apparently very high. A diagnosis was made of hæmorrhage low down in the pons, so as to be below the decussation, but high enough to include the facial fibres on their way out. The man died of respiratory failure on the eleventh day. At the autopsy, on exposing the brain, there was seen over both parietal regions a well-

marked false membrane, simulating the arachnoid, but showing at its line of junction with the dura well-marked saculation, and separated from it by effusion and bloody clot, so that it seemed at first as if the dura were about one-eighth inch thick in places, and full of tawny brown serum and clot. There was a thin clot about one-eighth inch thick, on each side in frontal region, and these thinned off to mere reddish inflammatory infiltration. The rest of the brain apparently normal. No evidence of arterial disease.

(6.) In an attack of influenza during pregnancy, the patient runs the ordinary risks as to complications, and the dangers of such complications, especially pulmonary, are greater than in the non-pregnant state. The danger of abortion exists, especially if there are complications such as high temperature.

In labour influenza adds materially to the dangers of the patient, but rarely causes death. In certain cases with complications or great weakness, the dangers are of the gravest sort. In the puerperal state the effects are neither serious nor lasting, but during lactation they are more serious than at any other period. The debilitating effects of the disease, and the drain produced by the nursing baby, sometimes leads to profound depression, both physical and mental.

(7.) The author reports a successful case of laminectomy. The supra-spinous ligament between the fourth and fifth vertebra was found ruptured, the spine of the fourth bent to the left, and the lamina of the fourth on the left side fractured. At the operation the lamina of the fourth on the right side was divided, and the spine and lamina were drawn forcibly away. The lamina of the fifth was also removed. Nineteen weeks after, report says bladder normal, uses left hand freely, right not improved.

(8.) Very little mention is made in text-books of the changes in the liver in typhoid fever, though some effect must be produced by lesions so gross as are found. The author's conclusions are drawn from seven cases. In all the

specimens, little nodules were found, in some in small numbers, in others in comparatively great numbers. The nodules vary from one-fortieth to one-fifteenth of the size of the lobules, and are distributed in no regular fashion, most frequently found in the middle zone. The nodules may be divided into two classes, the lymphoid and the necrotic; neither of them seem to be of new growth. There is no sign of expansile pressure on the surrounding tissue; All the nodules seem to be at first alike, but they become invaded afterwards to a greater or lesser extent by lymphoid cells. The nodules are made up of masses of unstained granular protoplasm the size of, or much smaller than, hepatic cells. In some of these masses the nuclei are still visible, though unstained; some are stained, but the cell protoplasm even then is nearly invisible. Some of the nuclei are broken up into several fragments, chiefly round, which stain diffusely. The capillaries of the nodules are filled with granular material. Lymphoid cells are found in the capillaries chiefly, some few between the hepatic cells. The so-called lymphoid nodules differ from this only in the difficulty with which the former cell elements are seen, and account for the great number of lymphoid cells present. The nodules are sharply cut off from the surrounding tissue. In some of the nodules the lymphoid cells are very few in number, in others there are so many present that one would almost take them for hypertrophied, previously existing lymphoid masses, such as normally exist in the liver. Besides these nodules there are present areas of capillary dilatation with only the nuclei remaining in the hepatic cells. These areas are of varying size and location, but are generally larger than the nodules before described; generally roundish, but not so sharply marked off from the surrounding tissue as the necrotic nodules. It is not a nutmeg change. There is no pigmentation. The other changes in these specimens are nutmeg change, atrophy, and pigmentation of hepatic cells and dilatation of the capillaries in the intra-lobular-vein zone. Fatty degeneration of the cells in the portal-vein zone is present

in two of the specimens. Beyond granulation there is no change in the protoplasm of the cell.

(9.) With January a new medical journal is added to the list of Canadian medical literature—*The Canadian Medical Review*. This venture seems to be the outcome of some difference of opinion among the members of the editorial staff of an already established periodical. The arrangement and composition, it is a pleasure to see, is almost entirely of original matter, with but few clippings from other journals. The reports of the Toronto societies are of considerable interest as showing the work that is being done in that city. The editors in their introduction state that they will endeavour to make the *Review* a first class medical journal, and judging from the first number it will, no doubt, soon take the lead of the many periodicals emanating from the medical press of Toronto.

Society Proceedings.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Tubercular Ulceration of the Stomach—Dr. Adami.

Multiple Intestinal Anastomosis of Tuberculous Origin—Dr. Adami.

Tuberculosis of One Suprarenal—Dr. Adami.

Generalised Tuberculosis with Affection of Back of Tongue,
Soft Palate, Pharynx and First Two Inches of Œsophagus
—Dr. Adami.

Two Complicated Breech Cases of Labour—Dr. G. A. Brown.

Death from Chloroform—Dr. James Bell.

Dislocation of the Ninth Dorsal Vertebra Treated by Extension—
Dr. Armstrong.

Arthrectomy—Dr. Armstrong.

Scurvy in Children with Notes of Two Cases—Dr. Blackader.

Stated Meeting, December 28th, 1894.

G. P. GIRDWOOD, M.D., PRESIDENT, IN THE CHAIR.

Dr. A. G. Morphy was elected an ordinary member.

Tubercular Ulceration of the Stomach.

Dr. ADAMI exhibited this specimen taken from a child of ten, born in Montreal, who, until within three months of her admission to the Royal Victoria Hospital, was in one of the charitable homes in the city.

At the beginning of October she began to be depressed and suffered from a violent attack of abdominal pain with frequent vomiting after meals. The attack passed off, to recur again a fortnight later ; there was a third attack the next week, and since then there have been several others. A fortnight before admission, the seizures became very frequent and violent, two or three daily. The vomiting did not recur after the first attack.

During the last two months the emaciation had been most rapid, until upon admission on December 7th, the little patient was little more than skin and bone. The abdomen was full and slightly distended and painless upon entrance into hospital, later there was diffuse tenderness

upon palpation. The bowels were regular, but slightly loose.

A diagnosis was made of tubercular peritonitis. It was worthy of note that the family history in this case was good. The father had died of a "tumour in the neck," the mother and three children were alive and healthy. While in hospital the child stated that a cow at the house had become sick some few months before, and at last ceased to give milk.

The child became weaker and yet more emaciated, and died upon the 22nd instant.

At the autopsy, the body presented the most extreme emaciation, with a petechial eruption upon the lower part of the thorax and upper half of the abdomen, and upon examination presented advanced tuberculosis. Upon opening the abdomen there were abundant signs of dry tubercular peritonitis. The omentum was adherent in several places to the walls. Scattered through it were several small hæmorrhagic spots, and occasional large tubercles. In the centre of the hæmorrhagic spots miliary tubercles could frequently be detected. The coils of the small intestines were dotted over with similar petechiæ. In the serous coat of the stomach also were at least four whitish tubercular masses. In the small intestines were typical transverse tubercular ulcers which had broken down, exposing irregularly the muscular coat. The mesenteric glands were enlarged and caseous, as were also the retroperitoneal glands.

Before passing to the consideration of the state of the stomach, Dr. Adami concluded describing the general post-mortem appearance.

Dissecting out the thoracic duct, a tubercular mass was found in its walls opposite to the body of the sixth dorsal vertebra.

The bronchial glands were found enlarged and some of them entirely caseous. There were small cavities, the largest the size of a brown bean, in the upper lobes of both

lungs, with tubercular broncho-pneumonia, and further a condition of fairly recent dry tubercular pleurisy, the membranous adhesions being not pale and bloodless, but of a reddish colour, and removable with moderate ease. Tubercles were present in both visceral and parietal pleuræ.

There was then a condition of advanced and very generalized tuberculosis which from the extremely caseous state of the mesenteric glands, he was inclined to regard as having first manifested itself in connection with the alimentary tract, although it would certainly be possible to urge that the disease began in the lungs. It was easier to explain intestinal tuberculosis succeeding pulmonary than *vice versa*. It must, however, be remembered that in this case the earliest symptoms were abdominal.

The petechial eruption and hæmorrhagic condition of the omentum and the serosa of the small intestines gained an explanation by the discovery of growths of the pyococcus aureus in cultures, made from the spleen and other organs. There had been secondary infection on the day immediately preceding death.

Turning to the stomach, this was found fairly full of curdled, milky matter, and upon examination of the walls there was found, as shown by the specimen, a certain amount of post mortem digestion, so that in one place the wall was almost eroded through. In addition, in the centre of the great curvature was an ulcer 13 mm. in diameter, with raised and irregularly thickened edges, and with a comparatively smooth base, formed of the muscular coat of the viscus. The smoothness of the base might have caused doubt as to the tubercular nature of the ulcer, but that this was truly tubercular was shown by the fact that corresponding to it in position upon the serous coat was an area of confluent tubercles.

Tuberculosis of the inner coats of the stomach was a rare condition. Why this should be when the affection was so common in the intestines it was difficult to explain, unless it was that the acid excretion of the cells of the mucosa

hindered the proliferation of the tubercle bacilli, just as acids are known to hinder the growth of the microbes outside the body. This theory would help to explain the rarity of tuberculosis within the brain substance and in muscle-tissues which also are characterized by their active development of acid substances. That there was no great lack of production of acid on the part of the gastric mucosa, as a whole, in this case was evidenced by the post mortem digestion.

Multiple Intestinal Anastomosis of Tubercular Origin.

The same case exhibited no less than four fistulous communications between different portions of the gut. The uppermost of these was in the lower part of the jejunum where the opening passed between the floors of two ulcers at points distant, the one four inches lower down the gut than the other; the lowest was between the lower end of the ileum and the first inch of the ascending colon. The fistulae had occurred at regions where the serous surfaces of ulcerated areas had come into apposition, and where the extension of the inflammatory process on to the serosa had, apparently resulted in the formation of adhesions anterior to perforation.

Tuberculosis of One Suprarenal

Dr. ADAMI exhibited this case of chronic tuberculosis affecting the left suprarenal, the right being normal. The affected organ presented a mass 2.5 c.m., or roughly an inch in diameter, showing on microscopical examination a central very chronic and fibroid tubercular growth with areas of caseation and frequent giant cells.

The specimen was from a case from Dr. Stewart's wards at the Royal Victoria Hospital of mixed syphilis and tuberculosis in an elderly woman, the latter manifesting itself also in the lungs, where evidently it was of old standing, and in the pleura where it was of relatively recent advance.

Within the last eighteen months there had been a short discussion at one of the meetings of this Society concerning Addison's disease, associated with affection of one

suprarenal. In the present case, as is most usual, unilateral disease of the organ was associated with no bronzing of the skin, vomiting, and progressive loss of mental and bodily vigour.

Generalised Tuberculosis with Affections of Back of Tongue, Soft Palate Pharynx, and first two inches of Œsophagus.

The last specimens were from a case of extremely widespread tuberculosis in a man of 22 years of age, who died in Dr. Stewart's ward of the Royal Victoria Hospital. The larynx, trachæa, pleuræ, pericardium, large and small intestines, peritoneum, liver and kidneys, all showed signs of the disease, and with this was extensive ulceration of characteristically tubercular nature in the above more unusual positions

Two Complicated Breech Cases of Labour.

Dr. G. A. BROWN read a paper on this subject, which will appear next month.

Dr. J. C. CAMERON, speaking in regard to the treatment, said the proper course to pursue in these cases depends (1) upon where the arrest has taken place—whether it is at the brim, or whether it is low down; (2) whether the liquor amnii is present, whether it has only a short time escaped, or whether it has been long drained away. When the arrest is high up (at or above the brim) which is a common occurrence, and the hand can be introduced the manual breaking up of the wedge is indicated. He did not, however, think it necessary to pass the hand up as far as the fundus for this purpose; by passing the fingers along the posterior surface of the thighs, the flexure of the knees could be reached, then abduct the limb, pressing at the same time on the thigh, and the leg will generally fall into the operator's hand. This treatment, known as Pinard's manœuvre, is also indicated when sufficient liquor amnii is present to permit the introduction of the hand. When, however, the breech has descended, or when the liquor amnii has all drained away leaving the uterus contracted round the foetus it may be impossible to introduce the

hand sufficiently to make such manipulations ; the forceps are then indicated. The fillet and hook are apt to do too much injury to warrant their use. Tarnier's Axis Traction Forceps are the best for such cases, the blades being introduced so as to grasp exactly the lateral diameter of the breech. If care is taken as to the direction in which traction is made, Dr. Cameron thought slipping not so likely to occur. It is the position of the arms after all that constitute the real difficulty in such cases. If they happen to be flexed outside the legs, or if the elbows project, delivery is almost impossible.

Dr. GEO. BROWN, in reply to Dr. Cameron, thought it made very little difference once one succeeded in getting the hand inside the uterus, which method was adopted, provided the operator delivered a leg, the difficulty being in getting the hand in. He had very little faith in the use of forceps in such cases ; he found that no matter how accurately applied, or how well fitted, slipping occurred on the least force being used. It was only to be expected, as the blades could not, from the nature of the case, get a secure hold of the breech. Moreover, if Tarnier's forceps were used, and a lot of traction exercised, fracture of the child's ilia would almost certainly result.

Stated Meeting, January 11th, 1895.

J. B. McCONNELL, M.D., FIRST VICE-PRESIDENT, IN THE
CHAIR.

Dr. R. A. Bowie, of Brockville, was elected an ordinary member.

Death from Chloroform.

Dr. JAMES BELL reported this case, which will appear next month.

Dr. JAMES STEWART remarked that the cause of death was heart failure. This, he believed, was the usual cause, according to the investigations made in this country and in Great Britain. Surgeon Laurie had made various attempts to prove that death was due to respiratory paralysis ; but

since his paper on this subject in connection with the Hyderabad Commission appeared, many others have closely investigated the subject, and almost all agree that death takes place, not through the respiratory, but through the cardiac centre. The matter is of special importance, as Laurie's teaching is now so widespread that the administrator is led to pay greater attention to the respirations, to the neglect of the pulse; whereas in reality it is the latter which should be the more closely watched as the source of danger.

Dr. GORDON CAMPBELL thought that in the case under discussion there must have been some recovery of the heart, temporarily at all events. Dr. Bell said that after the stoppage of the heart the lungs continued acting for six or eight respirations, then they also ceased and the patient became very livid. However, after artificial respiration and other restorative measures had been adopted, the patient again began breathing naturally, and after a certain number of full respirations the lividity became diminished and the appearance of the patient so far improved as to lead Dr. Bell to believe all was well. This improvement could not occur from the mere æration of the blood in the lungs. To relieve the congestion of the peripheral circulation the heart must have acted also, and on this account Dr. Campbell believed that here at least the initial paralysis of the heart was not final or permanent.

Dr. McCONNELL remarked that according to a report of some investigations recently undertaken in the United States by Hare and Thornton the Hyderabad theory was confirmed, and death did seem to occur through respiratory failure.

Dr. BLACKADER said that the present opinion of investigators with regard to the action of chloroform in animals, especially dogs, was that its first toxic effect was not upon the heart, but upon the respiratory and vasomotor systems. He thought this view must be now generally adopted. Its action upon man however, seemed occasionally to differ

from this. From the clinical reports of several fatal cases it seemed to have been shown that chloroform clearly in certain cases had a primary toxic action upon the heart in man. He thought these contradictory results might be reconciled by the fact that the former dealt with lower animals in a healthy condition, whereas the latter had to do with the human species, and often where pathological conditions existed.

Dr. JAMES BELL said that in accepting the results of these experimenters we must not lose sight of the fact that although the usual mode of death from a narcotic drug such as chloroform, ether or opium may be, and very likely is, through the respiratory centres in cases such as he had now reported, the death is not the result of the narcotic qualities of the drug, but is something which occurs once in about three thousand times, or perhaps only once in fifty thousand times. The experiments alluded to have never gone beyond a couple of hundred cases, and therefore were not likely to meet with this special result of chloroform. He believed it very likely that where death was produced by narcotic action of the drug it occurred through the respiratory centres, and he had no doubt at all that accidents often arose from an overdose of chloroform given by a careless administrator. He had seen instances of such accidents himself where, though they did not end fatally, they might have done so. The point is, however, that once in a certain number of cases where you least expect it, in minor operations, or even before the operation has begun, where only a little of the drug has been given and where every possible precaution has been taken, cardiac failure supervenes and is not recovered from, whereas in other cases it is recovered from. He reported a case last summer of a boy whose pulse stopped and gave him a great scare, but who fully recovered. In the present case Dr. Bell thought the fact that so little bleeding followed his preliminary scratching of the scalp, a region where bleeding should be profuse, was of considerable significance. This took place four minutes before the heart

stopped, and might go to show that even then there was some inhibitory process at work in the circulation at its distal extremity which travelled towards the centre. This was to him a new thought, as he had not been accustomed to think of the arrest of the heart's action being brought about in that way, from the periphery towards the centre; still he was confident the scratches he made in the scalp did not bleed as they should have done, and their not doing so he believed of some significance.

Dr. ELDER recalled the objection made by Dr. Campbell. He could not believe that the mere æration of the blood in the lungs could so affect the lividity of the general surface as to lead Dr. Bell to think everything was coming right.

Dr. LAFLEUR asked if rhythmic traction on the tongue, after the method used by Laborde and in great favour with the Parisians, had been tried.

Dr. JAS. BELL, in answer to Dr. Elder, re-read the portion of his written report bearing on this point. He further said, the apparent recovery was never so complete as to give them any hope of resuming the operation; the cardiac impulse never returned. Dr. Lafleur he answered in the negative.

Dr. MILLS believed that though Dr. Campbell's point had been well taken, it might be pressed too far. Very few people properly estimated the importance of the respirations on the venous circulation; thus, to dilate the lungs was to enlarge the arterioles, and to allow blood to get out of the right heart, and some to take its place, so that it is not impossible to understand how a certain amount of lividity might disappear were the heart beating ever so faintly. He thought the investigations heretofore had been conducted on far too narrow a basis, and the conclusions drawn from altogether insufficient data. He thought the experiments of Gaskell and Shore proved that the heart may not only fail, but fail early. With reference to Dr. Bell's suggestion of some failure of the peripheral circulation first, it is possible to understand some derange-

ment of the vaso-motor centres by which great dilatation of the vessels of one region may take place, while the heart still beats, causing a corresponding anæmia in other parts. The vessels of the abdominal area, for instance, may be so dilated as to suck up all the blood of the body, and there would then be practically no circulation elsewhere. Other points which he thought Dr. Bell might have laid more emphasis upon, were : (1) the fact that the surgeon is dealing with individuals diseased, or at least not perfectly normal as to health, whereas the experimenters dealt with animals generally in good health ; (2) the influence of psychic impressions of dread, which existing in the mind and kept under control during perfect consciousness, may be revived in their full force as the individual sinks under the influence of the drug. Something akin to this is seen in hypnotism, where impressions made in one state of consciousness were revived and acted upon in another ; (3) there was the special peculiarities of the heart muscle itself to consider. This was seen in the fact that we may act with chloroform upon hearts completely severed from their nervous connections, and get results as diverse and inexplicable as when we act upon the heart *in situ*.

Dr. BLACKADER remarked so far as pharmacologists were concerned, he believed he was justified in stating their opinion to be that the experiments of Gaskell and Shore were altogether too complicated to be relied upon.

Dr. ADAMI agreed with Dr. Blackader that the work and experiments of Gaskell were very complicated. Nevertheless in some cases where the experiment came off successfully, the results were striking, as instanced in the case of the cross-ligatures and anastomosis performed between two dogs, so that the blood of one dog exclusively supplied the cerebral vessels of the other, while his own cerebral vessels received their supply from the other. They then chloroformed one of them, and as a result of the cross anastomosing, the dog who received the chloroform had his brain supplied with pure blood, while the dog who did not

inhale it, had his cerebral blood supply charged with the drug. In some of these experiments it was found that the animal inhaling the drug, although his nerve centres were supplied with pure blood, died of heart failure, that showing that chloroform had a direct action upon the heart itself. Some experiments of his own were in the same line. He found that when certain quantities of chloroform were given, sudden and great dilatation of the chambers of the heart followed ; this occurred so rapidly as to seem as though we had here an action upon the muscle fibres themselves, or upon the fine nerve endings (which Berkley and others have now shown to be more common than supposed hitherto) rather than upon the nerve centres in the brain or cord. Dr. Adami thought the conclusion to be drawn from the observations of Gaskell and Shore was that chloroform could act directly upon the heart.

Dr. WILKINS believed the untoward action of chloroform in cases like that under discussion was in the heart muscle itself, and gave his reasons as follows. Some years ago, when performing experiments upon animals, he frequently had stoppage of the heart occur among dogs, which he was able to resuscitate afterwards by artificial respiration. This resuscitation proved the action to have been upon the heart itself ; because, the cardiac and respiratory centres being close to each other in the medulla, if the lesion was central, recovery could not take place in such a short space of time. Most of the members would remember those drowning experiments, where dogs were submerged, some with corks in their trachæ, some without ; the former were capable of being resuscitated, as they could properly aërate their blood and the heart resumed its action, the latter were not. In collapse from chloroform, if artificial respiration were kept up for three or four minutes, the heart might resume its action, showing the collapse to have been the result of the action of the drug upon the heart muscle itself rather than upon the cardiac or respiratory centres.

Dislocation of the Ninth Dorsal Vertebra Treated by Extension.

Dr. ARMSTRONG showed a man in whom he had successfully reduced a dislocation of the dorsal vertebra. The patient was brought into the hospital with what appeared to be a fracture and dislocation of the eighth or ninth dorsal vertebra. The accident occurred in the following way: The man driving under a gate-way on top of a load got himself jammed between the latter and the arch. There was no evidence of destruction of the cord at that time, he could move his legs, etc., and sensation seemed normal: but his body was doubled up, bent much forwards, and he was unable to straighten himself. A depression was observed at the point of injury and the supra-spinous ligament seemed broken. He put the patient under an anæsthetic, had a large pillow placed under his abdomen, and with the assistance of two men attempted extension and reduction. To his great surprise the dislocation was reduced almost at once, slipping right in, the two vertebræ came together and the depression and deformity disappeared. The man felt quite relieved upon coming out of the chloroform, and although seven weeks had passed he had had no bad symptoms since. From this experience he would therefore advise surgeons always to try extension of the spine with manipulation of the vertebræ before proceeding to operate, no matter what their previous experience of such cases may have been.

Arthrectomy.

Dr. ARMSTRONG showed a man upon whom he had performed arthrectomy about a year before. The patient had been exhibited shortly after the operation, when only slight motion in the joint was present; now, however, it was capable of a great deal more. The operation consisted of opening the knee-joint and removing the articular surfaces of both condyles and a portion of the tibia. He had cut across the patella, which was united by ligamentous union. The case was one of caries sicca, with marked atrophy of the muscles. The object in bringing him again was to

show how much improvement had taken place since the operation. The man had been working on a cattle ship all summer, and enjoyed apparently a very useful limb.

Dr. MILLS mentioned a case which he had seen in Baltimore a short time ago, under the care of Dr. A. W. Clement. It was dislocation in the horse of the middle cervical vertebræ, the deviation from a straight line being so great that the neck had the shape of a bent arm, and yet there never had been a symptom referable to the nervous system.

Dr. ADAMI reminded the Society that to a Montreal physician, the late Dr. Campbell, belongs the honour of what was believed to be the first case of successful reduction of dislocation of the cervical vertebræ. Dr. Campbell, while making his rounds, observed a child to fall from a tree, noticed the characteristic attitude of the body on the ground, pulled upon the head and brought the parts back into original position immediately.

Dr. JAS. BELL said he believed Dr. Campbell's case to be true. He himself saw a case of undoubted dislocation of the cervical vertebræ, without any symptoms of pressure on the cord. On first seeing him the patient refused to take an anæsthetic. On the following day, while undergoing an examination, in turning his head from side to side, suddenly his neck shot back, and he was as well as ever. It apparently reduced itself during the slight manipulation. Dr. Bell always felt there was danger of doing serious injury to the cord in attempting to reduce a dislocation; it was hard to imagine how one in the dorsal region could be reduced without injuring the cord.

Scurvy in Children with Notes on Two Cases.

Dr. A. D. BLACKADER read a paper on this subject. (See page 653.)

Dr. McCONNELL, after reading the articles referred to by Dr. Blackader, remembered about two years ago having had a case, which at the time he diagnosed as rheumatism, but which he now believed to have been scurvy.

Dr. KENNETH CAMERON thought he could add another

case to Dr. Blackader's series. The one referred to, which occurred last summer, was a child six months old, fed entirely upon sterilized milk and Nestlé's food. It developed subcutaneous abscesses all over the body. No teeth were present; and the gums were not at all inflamed. Still there was some stiffness and pain in the joints, causing flexure of the limbs, and this together with the eruption on the skin was all on which he had to form a diagnosis. As at that time he was making investigations in connection with the bacillus pyocyaneus, he suspected the patient's condition to be of that nature. Bacteriological examination, however, proved negative. He decided to treat it as scurvy and prescribed orange juice and fresh milk; The result was marvellous. Inside of a week the abscesses had healed up and no others formed, the child gave evidence of returning health in every way, and is now perfectly well. The effect of treatment seemed to confirm the belief that the case was one of scurvy.

Dr. MORROW saw a case about six months ago which he diagnosed and treated as scurvy. It suffered from sore mouth, plaintive cry, and the swollen gums protruded into the mouth; there were one or two reddish spots on the body, and restlessness was particularly marked. He prescribed orange juice and beef juice, and in one week the child was apparently well. The parents, it seemed, had been accustomed to dilute the milk very much. It had never had anything but milk and a little porridge although nineteen months old.

Dr. ORR had seen a case that day which he suspected to be scurvy. The gums were much swollen and bled readily. He examined the child for ecchymoses, but without success, although it appeared very sore all over. He was using anti-scorbutic treatment, and would await the result with interest. These facts in connection with scurvy in children so lately brought to light, added, in Dr. Orr's opinion, another to the already formidable difficulties of infant feeding. He would like to ask Dr. Blackadder whether the use of

sterilized milk was to be discouraged altogether, and whether we ought to advise parents to add some vegetable substance and meat juice to the diet as a prophylactic.

Dr. BLACKADER said, in reference to the use of patent infant foods, that one was obliged to confess that in some instances it seemed necessary to have recourse to them. They might be used as a bridge to carry us over a difficulty, but their prolonged use had always appeared to him objectionable. The one important advantage which they possessed is that their process of manufacture might be supposed to render them sterile, and during the summer months, and often during the winter months, it might be almost impossible in some families to command an absolutely sterile food in any other way. In the light shown by the occasional appearance of scurvy in infants fed entirely on them he thought we must regard all foods which had been prepared at a temperature of about 212° F. as dead foods—foods which fail to afford a perfect nutrition to the infant.

THE

Montreal Medical Journal.

VOL. XXIII.

MARCH, 1895.

No. 9.

THE ANTOXIN TREATMENT OF DIPHTHERIA.

Evidence is steadily accumulating of the value of the antoxin treatment of diphtheria. A prolonged and very lively discussion recently took place in the Royal Medical Society of Vienna on this subject. Widerhöfer and others contributed some valuable statistics which certainly seem to show that there is an undoubtedly favorable influence exerted by this mode of treatment. From the pathological side of the question, evidence of very special importance was brought forward by Prof. Kolisko. He has had unusual opportunities of becoming acquainted with the pathological changes brought about by the diphtheria poison. Since the introduction of the antoxic serum into practice in Vienna, he has performed 75 post-mortem examinations on patients in whom this treatment was carried out. He is convinced that it exerts a decidedly favourable influence over the course of the disease. The membrane is easier removed and is often found in a partially dissolved state. In the trachea and bronchi this breaking up of the membrane was found to be a very constant occurrence, an event very rarely met with in diphtheria treated by other methods. He explains this on the supposition that the antitoxic serum paralyzes the toxin action of the bacillus and prevents it from throwing out successive fibrinous layers. It causes a serous exudation, which dissolves and loosens the fibrinous material already thrown out. Kolisko

holds, however, that this action is only seen to any marked degree in the croupal stage of the disease. When the fibrinous exudation takes place, not only on the surface, but also into the substance of the mucous membrane, not infrequently the latter becomes eroded, even gangrenous. Here we are apt to meet with those fatal secondary effects, septicæmia, pneumonia, hæmorrhage, &c.

The secondary results are not infrequently the direct results of a mixed infection. Here the antitoxic treatment is of much less value.

As far as he is able to judge from the experience of the 75 post-mortem examinations made, he does not believe that there is any difference in the changes met with in the heart or kidneys as the result of the serum, as contrasted with other methods of treatment. The same changes have been met under both methods.

The evidence here sketched is certainly very strong as to the efficiency of the antitoxic serum, coming as it does from a thoroughly trustworthy, very able and experienced observer.

From some quarters reports of an injurious influence on the kidneys by antitoxic serum have been published. Kolisko, however, clearly shows that even large doses of this agent have no such deleterious action.

THE PREVALENCE OF PNEUMONIA.

Pneumonia at the present time is unusually prevalent in many districts of the North American Continent. It is especially frequent and fatal in the City of New York. During the week ending January the 26th, out of a total of 993 deaths, no fewer than 199 were due to pneumonia.

The increase of pneumonia in recent, as compared with former, years is strikingly brought out by the figures published by Dr. John T. Nagle, the Registrar of Vital Statistics.

In the year 1830, when there were 5,498 deaths in New York, only 228, or 1 in 22.8 were due to this disease, while

in 1893, when the deaths amounted to 44,486, 6,487 or 1 in 6.86 were due to pneumonia.

The great increase is, for the most part, confined to the last four years, corresponding to the recurring epidemics of influenza. There can hardly be any question that the increased prevalence of pneumonia is due to the influenza poison. The pneumonia met with in influenza is generally of a lobular and disseminated character. It may be a direct infection from the influenza bacillus or a mixed infection (pneumo-coccus, influenza bacillus, streptococcus, &c.)

It is always a very grave disease, the mortality being greater than in the ordinary croupous pneumonia.

No progress has been made with the serum treatment in croupous pneumonia. There is no proof that the serum of persons recently ill with pneumonia has any influence over the disease in another person. The alleged beneficial results obtained by the Klemperer Brothers have, unfortunately, not been sustained.

Conan Doyle, who has acquired some reputation as a story teller, deals in a recent tiny volume with the subject of hypnotism. One would naturally think that his medical knowledge would have saved him from writing nonsense, when dealing with such a subject. It unfortunately has not. A work of fiction should not be fictitious in every respect. From its perusal one should gather some grains of truth and goodness. The volume in question is an cut and out fiction.

Obituary.

E. D. WORTHINGTON, M.D.

It is with deep regret that we chronicle the death of E. D. Worthington, M.A., M.D., F.R.C.S., of Sherbrooke. Dr. Worthington was one of the oldest practitioners in this Province, having been in actual practice for upwards of fifty years. For many years he was not only a leading surgeon in his own district of country, but also throughout the entire province.

Dr. Worthington was born in Ballinakill, Queen's County, Ireland, December 1st, 1820. After his arrival in this country he studied medicine with that distinguished surgeon, the late James Douglas, M.D., of Quebec, to whom he was indentured for five years. At the close of his indentureship he was appointed assistant surgeon to H. M. 56th Regiment, then quartered at Quebec, and in 1843 he was promoted to the rank of Staff Assistant Surgeon. He afterwards served with a detachment of H. M. 68th Light Infantry. Upon resigning his commission he went to Edinburgh where he attended lectures at the University and the Royal College of Surgeons, winning the Gold Medal. After a brilliant examination he, in the same year, obtained the degree of Doctor of Medicine from the University of St. Andrew's. Shortly afterwards he became a licentiate of the Faculty of Physicians and Surgeons of Glasgow. Upon his return to Canada he received the Provincial License of the Montreal Medical Board and, almost immediately, commenced the active practice of his profession in Sherbrooke. In 1855 the University of Bishop's College, Lennoxville, conferred upon him "Honoris Causa" the degree of M.A., and in 1868 the University of McGill College granted him the degree "Ad Eundem" of C.M., M.D. For some years he was one of the Governors of the College of Physicians and Surgeons of Lower Canada. He

always took a deep interest in military affairs, and in 1861 was named Surgeon of the 53rd Battalion, afterwards promoted to the rank of Surgeon-Major, which rank he retained upon his retirement. When the St. Francis Medical Association was first formed he was elected its first president, and to his zeal, to a great extent, was due the organization of the Canada Medical Association. He is said to have been the first surgeon in Canada who performed a capital operation under ether as an anæsthetic and was also among the first to use chloroform.

As the physician and friend of the poor, the late Dr. Worthington was pre-eminently distinguished. This marked trait in his character brought about him a large circle of warm friends. So much admired was the self-sacrificing devotion with which he gave his time and abilities to the needs of poor patients, that it was thought worthy of public recognition, and in 1865 he was presented with a flattering address and a solid silver tea service "from the people and medical men of Sherbrooke and adjoining townships for services to the poor." Some years later he was the recipient of another handsome testimonial in recognition of his efforts in effectually stamping out a prevalent small-pox epidemic.

He was an able writer and had contributed a great many articles for medical periodicals, most of which appeared originally in this JOURNAL, and met with high approbation in the profession—so much so that many of his papers were copied into the medical journals of the United States and Great Britain. During the last few years of his life being almost entirely confined to his house, he employed his leisure time in writing reminiscences of his early student days and sketches of incidents which occurred during his practice of the profession.

His great abilities as a surgeon will be missed in the Eastern Townships and throughout the country—the medical profession has lost one of its brightest ornaments and the poor mourn a good friend.

Medical Items.

—The *Practitioner* has been enlarged and its scope extended. Malcolm Morris is the new editor.

—It is officially announced that cholera has reappeared in Constantinople in a comparatively mild form.

—A new medical journal, entitled *La Clinique*, and edited by H. M. Duhamel, M.D., has made its appearance in this city.

—A life of the late Hon. Dr. John Rae, (M.D. McGill University, 1853,) the famous Arctic explorer, is in preparation by his widow.

—Dr. J. E. White, of Toronto, died on the 21st of January. For a number of years he was Secretary of the Ontario Medical Association. The flourishing state of this society is in a great measure owing to the late Dr. White's energy and ability.

—Two very prominent English surgeons have passed away, both full of years and honors. We refer to J. W. Hulke and Sir Wm. S. Savoy. The former at the time of his death was President of the Royal College of Surgeons of England, and it is chiefly to his exertions that the Research Laboratory of the conjoint Board was established.