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The Canada Medical Record.

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CONTENTS.

ORIGINAL COMMUNICATIONS.

Ranula in New-Born Children. By Thomas A. Rodger, M.D. 113

PROGRESS OF MEDICAL SCIENCE.

Attitude and Expression in the Diagnosis of Surgical Diseases, 114—Gastric Ulcer. By E. Dreifus, M.D., 116—Avoidance of Pain in the Dressing of Surgical Cases—Hy-

perdistention of Abscesses, 119—Sublingual Ulceration in Pertussis, 121—Therapeutic Results with Pilocarpin, 122—Treatment for Dyspepsia, 123—The Treatment of the Diarrhoeas of Children. By J. Walker, M.D., 124—Anaesthetics in Childbirth, 126—Treatment of Amenorrhoea, 127—Treatment of Puerperal Fever, 127—Johnson's Fluid Beef, 127—The Relation of Albuminuria during Pregnancy to Puerperal Convulsions. 127

EDITORIAL.

PAGE

To Subscribers, 128—L'Abeille Medicale, 128—To Our Readers, 128—Vick's Floral Guide, 128—Personal, 128—Reviews, 129—Medical-Chirurgical Society, 131—Pyrogallic Acid in Hæmoptysis, 136—Current Literature, 136—Belladonna Plasters, 136—Lactopeptine, 136—Wyeth's Dialysed Iron. 136

PHARMACEUTICAL DEPARTMENT.

Original Communications.

Ranula in New-born Children. By THOMAS A. RODGER, M.D.

So very seldom is it that we meet with a case of congenital ranula, that its existence has by some been denied altogether.

My attention was directed by my friend, Dr. Gardner, to the last number of the *London Medical Record*, where I find that Dr. Muller, of Moscow, has lately drawn attention to the subject.

In a paper read before the Moscow Medical Society, Dr. Muller states that four cases have been recorded by Dubois, Bland, Bertier and Lombard, and four others by Bryant.

In the Foundling Hospital at Moscow, Dr. Muller remarks that four or five cases have been observed during the last seven years in about 80,000 children. Of these Dr. Muller describes three cases.

Considerable difference of opinion exists as to what really constitutes ranula.

It is usually said to be a dilatation of Wharton's duct; "but Erichsen states that there is no proof of the disease being of this nature, nor is it very easy to understand how so very small a duct can be dilated to so large a size as is occasionally attained by these tumors, which seem, in some cases at least, rather to consist of independent cystic formations, such as commonly occur in connection with other secreting glands, and in other parts of the mouth." This view of the case is strengthened by the

fact that these globular cystic tumors containing glairy fluid may occur in the substance of the tongue itself, away from any salivary duct.

The subject of the following case was born on twenty-fourth of April, 1878.

A large globular tumor completely filled the mouth, and even protruded beyond the lips of the infant. This tumor was in size somewhat larger than a pigeon's egg, and produced almost complete asphyxia, the child breathing only through the nostrils, and that, apparently, with great difficulty.

After dividing the funis umbilicalis, and examining the tumor more carefully, I decided it was a case of that form of ranula referred to by Erichsen, as involving the tongue itself; the latter organ being pushed up against the roof of the mouth. The child breathing with so much difficulty, I thrust my lancet into the tumor at once, when out poured a quantity of thick glairy fluid resembling very much the white of egg.

With my little finger I emptied the sac almost completely of its contents, after which the breathing was quite normal.

At my visit on the morning of the 26th, I found that the sac had partially filled again, so that the child could not nurse, notwithstanding that during the previous day, and night also, it had taken the breast with ease.

I again opened the sac, the contents being the same as before. The mother being decidedly adverse to any operative interference, it was with difficulty that I obtained consent to introduce a seton.

On the 11th of May, however, I introduced an aneurism needle armed with several threads of silk, directing the nurse to move them from time to time. Suppuration followed after a few days, and all went well until the 21st, when the child got restless and feverish, and the tongue became swollen to almost the size it was at the time of birth.

The mother and nurse both stated that the seton had been moved as directed, and that pus also oozed out along the threads on every occasion, still fluctuation was distinct, and I decided to remove the present seton. I took my friend Dr. Roddick to see the case, and we introduced a thicker seton, which answered the purpose admirably.

On the 16th of June, removed the seton altogether, and commenced syringing the cavity several times daily with a solution of carbolic acid, strength one part to forty.

At the end of five weeks from the time the seton was first introduced the case was quite well.

I made a visit to the child on the 9th of January and found everything satisfactory.

511 Wellington street,
Montreal, 7th February, 1879.

Progress of Medical Science.

ATTITUDE AND EXPRESSION IN THE DIAGNOSIS OF SURGICAL DISEASES.

An Abstract of a Lecture delivered before the Medical Class of the University of Pennsylvania Medical School, by D. HAYES AGNEW, M.D., Professor of Surgery and of Clinical Surgery in the University of Pennsylvania.

A large proportion of the injuries of the bony skeleton generally manifest themselves by some peculiarity in the position of the patient. By this statement I mean that if the patient is carefully watched, the lesion will reveal itself by the position which he assumes before any other visible signs of the condition appear. This leads me to speak of the attitude and form or expression of a part as an element in the diagnosis of surgical disease. By *form* or *expression* I mean the peculiar conformation of different parts of the body in health and disease. In health, the form of one side of the body is the same as that of the corresponding side. In disease, therefore, we always compare the diseased with the sound side. Every part of the body has an expression of its own in health and in disease.

The fact that the skeleton is fixed gives expression to the surface of the body. All our best references in surgery are drawn from points on the bony

skeleton. In tying the axillary artery, for instance, at its first part, we govern our incision by reference to the position of the coracoid process of the scapula. So, too, with regard to other operations on the body, we refer to bony prominences. In fracture of the lower part of the leg, we feel for the spine of the tibia, and see how it answers with the corresponding part on the opposite side.

Let me first take up the consideration of the subject with regard to certain conditions of the spine.

POTT'S DISEASE OF THE SPINE.

This is a tuberculous condition of an inflammatory character, and begins in the cancellated tissue of the vertebræ, producing great ravages and horrid deformity. This disease may lurk in the spine for a long time before it is discovered. If a careful examination is made, we can generally predict the approach of this disease. It is very prevalent in young children, from birth until they reach the age of fifteen. If the secret progress of this disease can be detected by any displacement, a cure can generally be effected without any serious disorganization. No matter how early it may be detected, however, there will always be some resulting deformity. I see almost every week cases of disease of the spine which have been entirely overlooked.

One of the symptoms whereby this disease may be detected in its early stage is a feeling of discomfort about the sides, attended with sudden spasms of pain; the child cries out suddenly, and then relieves the pain by lying down. Another symptom is grunting respiration, short, hoarse breaths. We may have this symptom without the presence of Pott's disease, but its presence should always awaken the suspicious physician. Then, again, we very frequently find a child with Pott's disease leaning over a table and complaining of a tired feeling. This symptom is often present, and when so, is one of great value. The muscles of the back are weary because they are not perfectly energized by the nerves which are compressed by the inflammatory deposits and thickenings at their roots. Then, again, I have often noticed a child with the prodromes of his spinal affection jump from a chair or sofa to the floor, and, lighting on its feet, seem for a time bewildered. If such a child walks about much, it does so with a great degree of uncertainty, and has a most peculiar gait—the shoulders are drawn up, concealing the neck, the arms are fixed rigidly and held away from the body. The patient does all this, and shuffles rather than walks along, to prevent all concussion of or shock to the spine.

In a month or so after the disease has begun, the surgeon will be able to detect little irregularities in the spinal processes.

The least twist of the spine brings on pain and discomfort. The child is therefore compelled to keep perfectly rigid, and when it stoops, does so by bending one limb and carrying the arm down, while the spine is kept perfectly stiff, in other words, squats. The trapezius muscle is in a constant state of spasm, and so the patient keeps the shoulder up. The scapula,

too, must be, and is, held up, for if it were allowed to drop, it would drag on the spine. The presence of this sign seems generally to indicate disease in the upper part of the column.

If, in any instance, you find one or more of these symptoms co-existent with pain in the chest and colicky pains in the abdomen, you may, in most cases, be pretty sure that you have to deal with a case of Pott's disease of the spine.

COXALGIA—HIP-JOINT DISEASE.

This disease very often goes on to its second stage before it is detected. Treatment, if it is to be successful, must therefore be begun early. If treatment is begun early, we may get very excellent results.

Long before there is any marked deformity in this, as in Pott's disease, certain prodromic symptoms may be discovered. These symptoms, I say, are apparent before the hip affection is manifest.

The earliest sign is a certain posture assumed by the limb on the affected side. The patient stands in a peculiar way. He rests firmly on the sound limb, but not on the other. One limb is well nourished and rotund, the other is generally somewhat emaciated, and is advanced, carried forward, and flexed at the knee on the thigh, and at the thigh on the body. The foot is also everted. Another point is the change which may be noticed in the crease which separates the nates from the thighs. This crease is entirely gone on the diseased side.

The limb assumes the attitude which I have described above, on account of certain conditions due to the effusion in the joint. There is in all cases a synovitis—the initial lesion, if in the head of the bone, induces the synovitis. Coxalgia, in fact, never exists without synovitis. The serum in the joint requires room, and the patient places the limb in a position to give this effusion the greatest room. The natural position of the limb would give it no room at all. The amount of room is increased by flexing the limb at the knee and the hip, and turning the toes out. You can very easily verify this fact in the dissecting-room. To do this, you must bore a hole above the acetabulum in a sound limb, and inject water into the joint. The limb on the side where the joint has been thus injected will take the very position which it assumes in a case of coxalgia.

Another prodromic sign of the disease is the following: if a child is placed in the recumbent position, and if it is healthy, it is just possible to edge in the fingers between the child's loins and the plane upon which it is lying. To do this, of course, the child must be placed upon a table, or some flat surface, and its limbs well straightened out. If one of the joints, however, in such a child be diseased, the knees will be raised when the child is placed upon the table, and then, if they be thrust down, the whole fist can be introduced between the table and the loins—the whole pelvis, in fact, goes up as the knees are pushed down.

The reason of this ought to be very clear to you all.

When I force the knees down, I put the psoas and iliacus muscles on the stretch. To relieve the pain

caused by this stretching of these muscles, the patient puts his body in the position on the table which I have described, viz., with his knees raised.

INFLAMMATION OF THE PSOAS MUSCLE.

The same deformity may occur in this disease as in coxalgia, and the patient may behave much in the same way. Mistakes are therefore very easy to make in regard to the diagnosis between these two diseases. The distinction may be made in the following manner: You must take hold of the limb and flex it. If it is flexed beyond a certain line, the pelvis in coxalgia will rise. In the case of inflammation of the psoas, the pelvis is not affected by this treatment.

SYMMETRICAL COXALGIA.

This is an affection of both hip-joints. It is often mistaken for spinal trouble. The position is very peculiar at a certain period in the course of the disease, viz., when, after the conclusion of the first stage, the affection takes a favorable turn and ankylosis has commenced. The thigh-bones are carried forward, and the patient throws himself very far back, producing a deep concavity in the lumbar region. In walking he balances himself by throwing his hands and arms forward. At the same time the chest is made prominent. In bad cases of this affection the patient may be forced to assume a trotting gait.

FRACTURE OF THE CLAVICLE.

You see every now and then a patient walking into the hospital carrying one arm in the opposite hand, and leaning forward towards the side of the helpless arm. The whole body is inclined to that side. The explanation of these symptoms is an easy one. When the clavicle is broken, the shoulder drops, and carries the trapezius muscle down with it; while the sternocleido-mastoid muscle contracting, drags the inner fragment of the clavicle up. The patient feels the want of support for his shoulder, and puts his hand under the arm to hold it and the shoulder up. If he inclined his head towards the other side of the body, it would drag on the sternal fragment of the clavicle. By inclining the body and head towards the injured side, both the trapezius and sterno-cleido-mastoid muscles are relaxed.

INTRACAPSULAR FRACTURE.

Let us take, for example, a person over sixty years of age who has slipped on the pavement and doubled his limb underneath him in falling. On attempting to rise, the person may be unable to stir, or, if he has been helped up, finds one limb helpless. Such a patient will be found lying with the sound limb turned a little out, and its helpless, injured fellow turned so far out as to be resting entirely on the outer side of the limb and foot. The patella on the injured side will be found, upon careful examination, to look directly outward.

RHEUMATIC ARTERITIS.

After the effusion has commenced in this disease, the limb on the diseased side is a little swollen, and, instead of lying parallel with the other limb, is flexed and carried away from it. The limb assumes the pos-

ture described above, because that position affords the greatest room to the fluid effused within the joint. A patient with rheumatic arthritis is afraid to touch anything with the affected member, dreads the least movement, and raises the hands in a warning attitude.

THYROID LUXATION OF THE THIGH-BONE.

In thyroid luxations of the thigh-bone the arms are placed behind the body, or crossed in front. The upper part of the body leans forward. The affected limb is held straight, with the toes turned out.

When, in the adult, the luxation has taken place into the obturator foramen, the toes are turned out by the rotator muscles. The limb may very often assume this position without the existence of a luxation, but when any violence has been suffered by the limb, and it assumes the position just described when the patient stands upright, we may be quite sure of the nature of the injury.

LUXATION OF THE THIGH-BONE ON THE PUBIC-BONE.

In this condition the limb is slightly flexed, and still further everted than in luxation of the thigh-bone. The body inclines towards the injured side. The hand usually rests on the leg, and the thigh-bone is carried forward.

The patient puts his hand on his leg to prevent spasm of the muscles.

THE LUXATION OF THE HEAD OF THE FEMUR ON THE DORSUM OF THE ILIUM.

Here the foot will be found to be everted. There will also be seen to be an unusual projection on the hip. The patient leans towards the affected side. The disabled limb is slightly flexed and shorter than its fellow, and is usually so much inverted that the toes touch the ball of the great toe of the other foot.

In another case of luxation of the head of the femur on the dorsum of the ilium where the bone is found to be a little lower down the general position of the limb is almost exactly the same, except that the toes are still more inverted and higher, nearly touching the instep. The adductor muscle draws the leg towards its fellow, thus partially rotating it, while the psoas, iliacus, and pectineus are engaged in flexing the limb and drawing it up.

DISLOCATION OF THE SHOULDER-JOINT.

This luxation is very often overlooked. No matter what the nature of the luxation, the arm will always be found to stand off from the body, unless it is a very old case, when it may hang stiffly at the side of the body. This luxation always flattens the shoulder.

The reason why the arm stands off from the body, in subcoracoid or subglenoid luxations of the shoulder-joint, is because the deltoid muscle is put upon the stretch, and the arm is thus forcibly pulled away. When the limb is found in this position, if the attempt be made to push it to the side of the body, it will immediately spring back.

LUXATION OF THE ELBOW-JOINT.

In this luxation the arm is usually rigid, and a

marked prominence is felt behind the elbow; the elbow stands far back, the skin being stretched tight over the extremities of the ulna and radius. In these cases the arm is generally in a state of moderate flexion.

ARTHRITIS OF THE WRIST-JOINT.

The hand is held straight out, and there is a very marked swelling at the back of the wrist. The fingers are glossy. Any attempt to move the joint gives rise to the most exquisite pain. Arthritis of this joint frequently terminates in disease of the bone substance. The joint may recover if ankylosis takes place. This peculiar conformation and position of the hand and wrist is not found in luxation or fracture. It is the posture which gives the greatest amount of room to the effusion.—*New York Medical Record.*

GASTRIC ULCER.

[A paper read before the Medical and Surgical Association of New Orleans.]

By E. DREIFUS, M.D.

This lesion, which, on account of its characteristic form and peculiar course, is designated as *ulcus rotundum* or *perforans*, was not known to the older physicians, at least they had no thorough knowledge of it, but confounded it generally with other morbid processes. It was first distinctly described by Cruveilhier, in his great work on pathological anatomy, in the year 1830; he saying, it was previously confounded with cancer of the stomach.

In 1839 Rokitansky gave an account of it under the name of perforating ulcer of the stomach. A very fine essay was published by Cruveilhier, in the *Archives Générales*, for February and April, 1856. To Dr. Wm. Brinton and his valuable essay are we indebted for many of the facts now known in regard to this disease.

The chief seats of it are at the lesser curvature, posterior wall, and specially in the pyloric portion, and at the cardia. In very rare cases it occurs in the duodenum or œsophagus.

The characteristic features of the ulcer are, its circular form, as if stamped out; and its tendency to extend destructively to all the strata of the gastric parieties. The process of destruction always commences in the mucous membrane, and is confined to it in a large number of cases. Accordingly we find not unfrequently in bodies the traces of a previous simple ulcer; and the healing takes place, as in all other ulcerations, by means of the formation of new connective tissue, at the bottom of the ulcer, by which the edges gradually grow together and finally unite. In proportion to the loss of substance, will be the constriction and shortening, causing deformity of the stomach; and the consequences may be both a narrowing of the pyloric half, and also a considerable in-

terference with the vermicular movements of the organ. But, if the ulcer progresses, it then frequently leads to perforation and, by escape of the contents of the stomach, gives rise to general and usually fatal peritonitis.

In respect to extent and size numerous gradations occurs, and the form of the stomach is still more irregular, when several ulcers become confluent.

CAUSES.

The causes of simple gastric ulcers are not sufficiently known. Probably several factors concur in their production. We may assume, as probable, that a partial disturbance of nutrition, due to disease of the blood-vessels, occasions a circumscribed gangrenous destruction of mucous membrane. The hypothesis, that an altered condition of the gastric juice gives rise to the ulcer, appears to me to be unfounded; nevertheless it cannot be denied that the vermicular movements of the stomach and the action of the gastric juice hinder the cicatrization and consequent healing. Without doubt, similar ulcers occur on other mucous surfaces; but, on the one hand, they are not followed by the same severe consequences, as in the simple ulcer of the stomach; and, on the other hand, they heal much more readily. Under unfavorable circumstances, as has been mentioned, the ulcer ends in perforation of the stomach and fatal peritonitis; but this occurrence will not rarely be prevented by the circumstance that the base of the ulcer has formed adhesions to some of the neighboring organs. Such adhesions are formed corresponding to the seat of the ulcer, more frequently between the stomach and pancreas or duodenum, and also with the left lobes of the liver, the anterior walls of the abdomen and omentum, the spleen, the diaphragm, the colon, etc. If the loss of substance be small and the adhesions to the neighboring parts firm, life may be prolonged for a considerable period. But if the loss of substance be great, the function of the stomach will, in spite of the cicatrization, be much disordered, and the nutrition of the animal economy will suffer severely in consequence. Besides, even with firm adhesions, subsequent perforations may occur, from softening of the false membrane.

SYMPTOMS.

The symptoms which accompany ulcer of the stomach during life are very variable. Sometimes for a long interval the symptoms are very insignificant or may be entirely absent; but, for the most part, disorders of the stomach manifest themselves. Generally we observe a very painful sensation in the epigastrium, of weight, or drawing together. By pressure in the region of the stomach, a fixed, painful spot is detected. But these phenomena are also manifested in chronic gastric catarrh, and in carcinoma of the

stomach; and either one of these complaints may be confounded with simple gastric ulcer.

The appetite is usually more or less disturbed, occasionally unchanged, and oftentimes increased. Yet the patients complain of slow digestion after meals, of pains, of pyrosis, eructations, etc. As the disorder increases, retching and vomiting make their appearance. The pain is generally fixed, but not confined to the same spot. All these symptoms, as is evident, are not pathognomonic, and physicians are, therefore, at an early period of the disease not in a position to make a positive diagnosis. The hæmatemesis is of greater importance, and it is also one of the most dangerous symptoms, from its dreaded tendency to relapse. Vomiting of blood occurs with varied intensity. The vomited matters are either only slightly tinged with blood, or are colored chocolate brown, or like coffee grounds, the dark color arising from the action of the gastric juice upon the blood effused into and detained for some time in the stomach.

Should, during the course of ulceration, a larger blood vessel be eroded, the hemorrhage might be sufficient to cause immediate death, or at all events the highest degree of anæmia, and exhaustion would result. A feeling of weight and fullness of the epigastrium frequently precedes the vomiting of blood. The hæmatemesis may take place at any period of the disease. The results of profuse vomiting of blood are similar to hæmorrhages all over the body—syncope, pallor, coldness of the extremities, feeble pulse, etc. Sometimes hemorrhage takes place without vomiting. If a patient suddenly turns pale after a momentary feeling of weight and heat in the epigastrium, and, on examination, the region of the stomach yields a hollow percussion sound; if the pulse becomes feeble, and syncope comes on, from these symptoms we may conclude that an internal hemorrhage has taken place. Such an internal hemorrhage may occasion death without vomiting as the bleeding generally occurs during digestion. Bodily and mental emotions may induce it, but especially any excitement of the circulation. Emetics also, for which the patient often craves, may bring it on.

Several stages of this disease may be distinguished. In the first, the formation of the ulcer occupies a considerable time for its completion, the chief symptom being simply a kind of gastralgia, sometimes indeed of a most intense degree. The pains present nothing characteristic; they may be continuous and fixed or paroxysmal, and may be very easily mistaken for nervous gastralgia. The occurrence of pain in the spine opposite the epigastrium is also not characteristic, being found in other gastric affections. Hence, in the early stage, ulcer of the stomach is very difficult to diagnose. Palpation reveals at most a fixed spot, where pain is increased by pressure, and only in the case of

persistent adhesions can we sometimes discover a certain induration.

In the succeeding stage vomiting of blood comes on, from which we are better able to decide on the nature of the disease, although this symptom does not exclusively belong to simple ulcer of the stomach, but does sometimes appear in the course of carcinoma of that organ. Even in this stage of the disease, Drs. Brinton and Budd say: "Often repeated hemorrhages have taken place; the process of healing by cicatrization does sometimes occur, and patients do get well." It has been my lot to see only two cases, and both proved fatal. Hemorrhage must always be regarded as a very grave symptom, because the bleeding himself may prove dangerous. And, besides, it indicates that deeper ulceration is in course of progress. Usually all the blood is not vomited, but a portion passes off by the stools, in an altered condition, and sometimes the whole of the effused blood is so discharged.

In the third stage perforation of the mucous membrane takes place, in consequence of which the contents of the stomach escape into the cavity of the peritoneum, causing a usually rapid and fatal peritonitis. This can only be averted in the case of slowly formed perforation, by adhesions to the neighboring parts, and sometimes these adhesions give way at a later period. If these adhesions are extensive, and give rise to a hardness perceptible to the touch, they may be confounded with carcinoma. Occasionally perforations occur suddenly, not preceded by other considerable symptoms of disease, as for instance, when the progress of the ulcer is quite latent. Extensive adhesions may occasion long continual disorders of the stomach and induce ill health; but a small adhesion may remain after cure, without producing any derangement of the stomach whatsoever.

The morbid appearances to be looked for after death, are a smooth, round, ulcerated spot, as if stamped out, and adhesions. We know that gastric *post-mortem* changes occur early, and are sometimes due to cadaveric digestion, as well as to hypostases and putrefaction; and they have sometimes been misinterpreted as the *ante-mortem* lesions of inflammation, ulceration and perforation. There are few dead bodies in which the stomach is not in some degree digested. Its greatest ravages are found in the bodies of those suddenly killed, after a hearty meal, especially if the body has been kept in a warm place. In such cases the stomach may be perforated with ragged, lacerated openings, and its contents be found floating in the abdominal cavity; or even greater ravages may ensue.

Cadaveric digestion sometimes presents erosions enough to simulate ulceration; and drops of blood may flow from the digested ends of

small vessels, when pressure is made on the branches from which they are derived.

From the above facts it is manifest that, since engorgement with discoloration, softening, opening of the vessels, and destruction of tissues do occur in the most depending part of the stomach, as results of hypostatic, digestive, or putrefactive *post-mortem* changes, too great caution cannot be exercised in attributing any such changes to *ante-mortem* lesions, when these changes are limited to its splenic end and to the line of gastric contents.

PROGNOSIS.

The prognosis of ulcer of the stomach is always doubtful, although many cases of cure are said to have occurred, and although authorities say a cure may take place at any stage of the disease, I shall always consider it a very grave and serious, if not fatal malady. Death results either from hemorrhage or peritonitis; or, when the disease is of long duration, from exhaustion. From various statistics I have found that nearly one-third of all known cases of simple ulcer of the stomach prove fatal.

TREATMENT.

As regard treatment, little is to be said beyond hygienic measures and nourishment, as there are no specifics for this complaint. The most important rule is, that the patient subject himself to a most rigid dietetic regimen, and observe the strictest quietude, in order, if possible, to favor the cicatrization of the ulcer. Beside this, we must endeavor to combat particular distressing symptoms. Milk diet is certainly the best that can be used; and, in consequence of the great irritability of the stomach and the difficulty of patients' retaining any food, I would suggest feeding by the rectum, as we now know that absorption goes on just as readily there as *per viam naturalem*; and we consequently lessen the peristaltic action of the stomach, which seems to be one of the prime causes that interfere with cicatrization. To allay the gastralgia, hypodermic injections of one of the salts of morphia and other narcotics may be used, and for the frequent constipation enemata may be employed; for the obstinate vomiting, ice, alum or tannin, and small quantities of carbonic acid waters; for hæmatemesis, ice, alum, tannin, bismuth, hypodermic injections of fluid extract of ergot or ergotine, beside the tinct ferri chloridi; and, in addition, what appears to me the most rational of all, is the frequent washing out of the stomach with a stomach-pump, using a three per cent. solution of carbolised water.

The greatest obstacle towards a successful treatment seems to be, that the chief indications, absolute rest and abstinence from everything injurious, cannot be fulfilled. We are therefore compelled to confine our efforts to reducing the action of the stomach to its minimum, using the most easily digested food, and to feed *per rectum*.

This course of treatment must be persevered in for a long time, alternating when the rectum becomes irritable, as it will usually do, and feeding by the month again, but only in the most minute quantities and such articles as require little or no digestion. For perforation little, of course, can be done, and treatment of symptoms is alone available.—*New Orleans Medical and Surgical Journal*.

AVOIDANCE OF PAIN IN THE DRESSING OF SURGICAL CASES—HYPERDISTENTION OF ABSCESSSES.

George W. Callender, F. R. S., surgeon to St. Bartholomew's Hospital, London, having been invited by Dr. Lewis A. Sayre to occupy his lecture-hour at the Bellevue School, spoke upon the Avoidance of Pain in Surgical Dressing. We make extracts:

When we operate for harelip upon children in my country—and I presume it is pretty much the same in yours—we relieve the patient of much suffering by placing him under an anæsthetic. For such little children, we use chloroform; for such grown-up children as ourselves, we use ether. Besides the irritation produced by the wound, it is common to draw the margins of the wound together, and support them by strips of adhesive plaster drawn across the face. This procedure becomes a source of discomfort to the child, who cries and complains, as would be expected. But now, gentlemen, to avoid this, and to save that little one from a considerable amount of pain, it is my constant practice—and I trust you will not think me egotistical in frequently referring to my personal experience—to apply such strips to the face of the child for some three or four days prior to the operation. The child thus becomes accustomed to the restraint, and when it comes out from under the influence of the anæsthetic, it suffers, from the reason of its being so accustomed to this restraint, less than would otherwise be inevitable.

Now, I dare say that few of you think, unless your attention has been directed to the subject, of the great discomfort that is caused by the removal of adhesive plaster from a surface upon which hair may happen to grow. Perhaps some of you may have chanced to have had plaster applied to some such parts of your person, and if so, your experience is far less pleasant upon its subsequent removal. I would recommend you to so apply plaster as to never necessitate its removal until the treatment is complete. Now, take a breast amputation, and let us suppose that we secure the dressing by means of straps of plaster. Plaster so used should never be removed until the treatment is complete. When the dressing has to be changed, you are to cut out the space over the

dressing, at the point where it leaves the wound and passes on to the skin. Renew your dressing, and rejoin the divided plaster by means of a strip laid over that first applied. And this may be done again and again every successive dressing, leaving the first applied plaster still adherent to the surfaces of the integument. Although this seems like a small matter, yet I assure you that these small matters materially add to the comfort of the patient and to your success as a practitioner.

Avoidance of Pain in Dressing Mammary Wounds.—Another small matter. We are often called upon to deal with large wounds resulting from the removal of mammary tumors. It is a common practice to retain the arm across the anterior portion of the chest by means of a bandage lightly passed around the neck. Now, when the time comes for dressing the wound, some twenty-four or forty-eight hours after the operation, the bandage is loosened and the forearm and the arm are removed to the side of the body. And what takes place? The muscles have been restrained for some time; when this is done they resent the movements; you will feel them quivering under your hand. First, the biceps, and then the pectoral muscles quiver under the movement; and the patient with a great start cries out with pain. Now, why is this? Why, irritated by the action of the biceps, the pectorals, from their insertion to their attachment, are started into action; the whole wound is disturbed. The adhesions are probably rent asunder, and it is no wonder that the patient under these circumstances complains of pain. Now, let me tell you, gentlemen, how all this may be avoided, and in the simplest possible manner; and perhaps Professor Sayre will permit me to use him as a model on which to demonstrate its simplicity. If I want to prepare for the dressing of the wound, I grasp the arm firmly so as to control entirely the biceps. I now take hold of the forearm and move the arm to the extreme of extension, and as I do this I feel the biceps quivering under my grasp; but it is unable to act, and no irritation follows in the pectorals. While grasping the biceps the arm is moved slightly to the side, and is now so circumstanced that the dressing may be easily removed. I can, from a practical point of view, tell you that, by taking this precaution, the dressing may be effected without occasioning the patient the slightest pain. Now let me commend this to you.

Avoidance of Pain in Dressing Stumps.—Then again, with reference to amputations, not only must the patient be gotten well, but during his convalescence he should be kept free from pain. In the case of amputation of the lower extremity I place the limb upon a splint, and see that it is carefully adjusted and swung; the splint is provided with an arrangement

that will allow of dressing the stump without in anyway disturbing the parts. I hope I may have an opportunity of showing this instrument to you upon some future occasion. You are all probably acquainted with the manner in which the barrels of our ordinary breech-loading fowling-pieces are dropped, so as to receive the cartridges. In a similar manner a catch placed under a portion of the splint allows of sufficient of that splint being dropped from beneath the stump to permit of the removal of the dressings and of their replacement without the slightest disturbance of the parts, and without giving rise to the slightest pain. I can assure you that in this way you can dress and redress an amputation stump without the patient's even knowing the applications are being changed. And to show you how carefully these operations have to be conducted, I may add that if during the change of the dressings the slightest jar of the apparatus is permitted, the patient will at once recognize the error in treatment by starting of the limb and complaints of pain.

Pain from Emotional Irritations.—Now there are many ways in which pain and discomfort may be induced. I will mention one condition. There are, what I have ventured to write upon, emotional irritations. I mentioned a case of this kind only yesterday, in visiting one of your hospitals, that of a child who had been cut for stone. I will give you another instance in point: A man lay in Kenton Ward, a ward which had come to me by descent through Sir James Paget and Mr. Stanley. The man had sustained a severe injury of his forearm. The muscles, and tendons, and nerves, indeed all there was to divide, save the bone, had been cut through in a machinery accident. We stitched all these structures together, and I suppose you do the same here; and we are hoping the day is not far distant when not only tendons, but nerves also, may be reunited and made to regain their function. Now I commonly dress these cases by swinging the extremity by means of a very simple apparatus. I take a slate, or rather the framework of a slate, and to this I attach a pad of sawdust, on which the arm is laid. The arm is then swung by means of pulleys and a bar fixed over the bed, the arm of the patient being counter-weighted by means of a graduated tin, filled with shot, so as to exactly balance the part suspended.

In this way the patient can, without an effort, raise or depress the part, and is even allowed sufficient liberty of movement to permit of his getting up and moving around his bed.

Now, although I thought I had made this man as comfortable as he possibly could be, yet he soon became irritable, and his temperature rose to 103° or 104°. There was nothing to account for this, save that he complained of the appara-

tus, and said that it irritated him. Now I always attend to the complaints of my patients, and you will always find they have some good reason, or at least, if not attended to will make themselves ill over nothing at all.

Well, I had to take it all down, and laid his arm simply upon the bed. At once he was relieved, the irritation was at an end, and the temperature fell to the normal point.

Now, gentlemen, I pray you always to attend to the slightest complaints of your patients. If you do not, some slight irritation, such as I have been describing to you, will vex and continue to vex them, which at last may grow into such an irritation as to produce not merely pain, but considerable constitutional disturbance.

Importance of Drainage.—But these rough mechanical movements are not the only condition which give rise to unrest in a wound. In these days, when we endeavor to secure union in a wound by first intention, we bring into close apposition the margins of the wound. But we know that in connection with all wounds there is a certain amount of blood-stained fluid necessarily effused, and if this remains locked up in a wound, what must of necessity ensue? Not only is the patient made restless, and pain occasioned by the swelling caused by the accumulation of the fluid, to say nothing of the risks of some one of those forms of constitutional disturbances which we speak of collectively under the name of blood-poisoning, but, as you can readily understand, the fluid, as it collects, of necessity separates more and more widely the parts, which, if they are to unite by primary union, or by granulation, must needs lie in absolute contact. Now, to avoid this cause of pain and irritation, all wounds must be effectually drained. It matters not what form of drainage-tube you may employ; sometimes a silver tube may be used or a piece of elastic tubing, or a bit of catgut, or that which I very frequently employ, a strip of gutta-percha tissue carried through the depth of the wound; but in some way drainage should be effectually secured, so that all this fluid may have a ready escape, and thus free the patient from the irritation which would otherwise necessarily be induced.

Treatment of Abscess by Hyperdistention.—The time is scarcely passed—indeed, if you will refer to any of the works on surgery of the present day, you will find it laid down as a rule that when you have a patient suffering with an abscess developed in the course of some chronic disease, it is better to leave the abscess to pursue its course, carrying mischief among the muscles, and widely diffusing such mischief in distant parts of the body, because it is stated, that when such an abscess is opened there is risk of grave constitutional disturbance, and sometimes even of inflammation of the abscess sac, leading to

blood-poison, and to the death of the patient. At the best, the opening of such abscesses was held to be followed by such an increase of the discharge as rapidly to exhaust the patient, and thus to hasten the fatal result; and, no doubt, treated as these abscesses usually were, such consequences often ensued. I now have no hesitation in opening such abscesses, and I may say it constantly happens that patients are admitted to the wards for the purpose of having such abscesses treated, and within a week or ten days thereafter are discharged, to be again outpatients, the abscess having been opened without the slightest constitutional disturbance or inconvenience to the patient. We effected this by what I have spoken of as hyperdistention—a somewhat barbarous expression, but I believe in medicine we are permitted to make use of such expressions. To effect this we make a lotion of one part carbolic acid to twenty of water, diluted at the time of its use by the addition of hot water, so as to bring its strength to one in thirty. An incision is now made into the abscess; I usually employ one of a crucial shape, about the size of a double-edged scalpel, and the lotion is injected with an ordinary syringe provided with an elastic nozzle. The pus having been first evacuated in the ordinary way, as much as will flow being allowed to escape, and as much more as can be got at being evacuated by means of pressure, as the fluid is forced in and the sac becomes distended, the elastic nozzle expands and fills up the opening, and in this way almost any amount of pressure may be brought to bear upon the distention of the abscess cavity. When distended as far as possible, the lotion is allowed to escape from the cavity, and the injection is repeated again and again until it runs clear from the wound. We then know that the abscess has been thoroughly cleaned out. I do not say it is always possible to effect this, for sometimes we meet with exceptions to the general rule, and find that some muscle or tissue hangs, valve-like, over a portion of the abscess sac, and renders it impossible for us to force the fluid to the extreme limits of the cavity; but such is an exceptional condition, and can only be taken as referring to the general truth that all good rules must have their exceptions. After the distention has been completed, and the drainage-tube is introduced, and the wound is covered with some carbolized oil, lint, and a sheet of gutta-percha tissue, there may be some little discharge, partly of the fluid injected and not evacuated at the time of the operation, which may be mingled with pus for a few days; but presently the abscess contracts to a mere sinus. I do not mean to say that this sinus can be always closed; the treatment does not profess to cure the carious condition upon which the abscess may depend; and so long as a cause of irritation exists, whether deep carious bone or dead bone, or whatever else may be the

cause, the sinus will remain as a canal along which the discharge necessarily goes. But there will be no constitutional disturbance consequent upon the operation. All extension of the abscess is prevented, and the patient, so far from suffering, rapidly improves in his general condition consequent upon the evacuation which has been effected. If there be no such cause of irritation, the sinus will presently heal up.

In the case of acute abscesses the effect is still more marked. For example, a case which I recollect, that of a large abscess upon the side of the chest, consequent upon a local hurt; the hyperdistention of the abscess is followed by the rapid contraction and healing of the sac.—*New York Medical Record.*

SUBLINGUAL ULCERATION IN PERTUSSIS.

Dr. Delthil having forwarded a paper to the Académie de Médecine, it was referred to a committee, and at a recent meeting of the Academy (*Bulletin*, No. 28, September 17,) Prof. Henri Roger, of the Hôpital des Enfants, read an able and conclusive report on the subject. He finds the remarks he makes upon it upon his prolonged hospital and extensive civil practice, pertussis prevailing epidemically every year in Paris, and severely so in 1877-78, so that the field of observation has been ample enough.

That it is not an essential phenomenon of pertussis, as maintained by some observers, is shown by the fact that it is not always present. In fact, its frequency is very variable, being dependent on the violence of the paroxysms and on the disposition of the teeth in the first dentition. When these two conditions are united it is almost always met with, while, when they are both wanting, it, too, is absent. Still, as a general statement, Prof. Roger agrees with Dr. Delthil that sublingual ulceration is met with in about one-half the total number of cases of pertussis. Another proof that it is not an essential phenomenon is that it does not appear at a fixed epoch at the commencement. It is rarely observed before the third week (comprising the period of incubation), and in most cases several days later. If the habitual duration of the two stages of pertussis be considered, we can understand why the ulceration does not appear, save exceptionally, before the third week. Although it is difficult, even in private practice, to learn exactly the date of the infection, Prof. Roger is in possession of a sufficient number of precise facts to enable him to state that the mean duration of incubation is generally six or seven days—although he has in some cases known it to be as short as three or four days, and as long as ten or twelve. Then a period of at least ten or fifteen days passes before the cough, at first common, becomes spasmodic, and then quite paroxysmal—before the attacks are exhibited by expiratory jerks,

with impulsion of the tongue against the lower teeth. It is only during this full nervous period that the frænal ulcer is developed. The time of its appearance, so far from being fixed and early, is necessarily slow and variable—always following, and never preceding the paroxysmal stage.

As to the mechanism of its production, there is no preceding vesicle or pustule present, as represented by some writers. Prior to the ulcer appearing, Prof. Roger has often observed at the frænum, and especially at its lower insertion a somewhat vivid redness, and then an erosion, or a linear division of the mucous membrane, with an appearance of granulations. At the point of section of the frænum there is sometimes seen a transverse depression, and sometimes a kind of pimple (*bouton*), or a yellow or white patch, often of a pearly aspect, two or three millimetres in size. At other times there is a small, median, oval ulcer, with irregular edges, and a pale or reddish-grey base. The lesion may remain in this state, while in other cases it may extend some millimetres beyond each side of the frænum, becoming also deeper, as if burrowing under the tongue. The ulcer is generally covered with a whitish or grayish exudation, not diphtheritic in its appearance, but resembling the exudations which cover the irregular ulcerations mechanically produced inside the cheeks and lips by the projection of irregular teeth or their fragments. The origin of the ulcer is purely mechanical; the tongue being in its hyperæmic state thrust forwards during the paroxysms of coughing, the frænum is easily cut by the sharp lower incisors—the lesion prevailing in a precise ratio with the severity of the cough. The ulceration occurs more readily in infants of ten or twelve months than in older children, because in the latter, when the first dentition is completed, the tongue is supported on the entire range of teeth, and is much less liable to injury than when it is only projected against the incisors, which are sometimes divided on their edges into points as sharp as needles, lacerating the tongue, and dividing the frænum like a knife. When the disposition of the teeth is anomalous, the other parts of the tongue may be lacerated; and, on the other hand, when the frænum is short, so as to prevent its protrusion, no ulceration at all will be observed. So, in infants attacked by pertussis before dentition, no ulceration is ever observed; nor is it met with in the pertussis of adults, in whom the edges of the teeth are much less sharp, and who do not project their tongues during the paroxysms.

As to the semeiotic value of the ulceration, it is not without its importance, inasmuch as the cough of pertussis is the only one that is violent enough to propel the tongue against the teeth. Prof. Roger has never met with it in any other affection, and wherever its presence is positively

proved, pertussis may be diagnosed. Of course, in the great majority of cases, the paroxysms themselves have sufficiently declared the nature of the disease before the ulceration has made its appearance. But still there are certain cases in which the cough, not having as yet assumed a sufficiently special character, the practitioner may hesitate at deciding whether he has to do with a paroxysmal bronchitis or with the true paroxysms of pertussis. He should then examine the tongue (which is not always an easy matter, and requires both care and patience in very young infants), and if he finds this lesion of the frænum, and at the same time a prominence of the corresponding teeth, he may rest assured as to the nature of the case. Sometimes it is an observant mother who first draws attention to the lesion in question.—*Med. Times and Gazette*, Oct. 5, 1878.

THERAPEUTIC RESULTS WITH PILOCARPIN.

The results of recent investigations are here summed up. Dr. Demme, of Berlin (*London Medical Record*), arrives at the following conclusions:

1. Pilocarpin is an effective diaphoretic and sialagogue in childhood.

2. It is borne very well, in appropriate doses, even by children of very tender years.

3. Unfavorable after symptoms are but rarely observed, and, probably, may be altogether prevented by the administration of small doses of brandy before the injection.

4. The conditions in which it is chiefly indicated are the parenchymatous inflammations of the kidney, with dropsy, following scarlatina.

5. Pilocarpin does not appear to exercise an influence on the heart's action.

The *Hospital Gazette* states that an important physiological effect of pilocarpin, according to Dr. Zielewicz, of Posen, is its power to reduce animal heat. He has observed a decrease of temperature amounting to as much as 2, 2½, and even 3 degrees, averaging, however, 1 to 1½ degrees. In very few instances there was a slight increase of the temperature. Again, it seems doubtful to me whether the diminution of the temperature can be attributed primarily to the action of pilocarpin, or whether it is not due to, and only temporarily caused by, the evaporation of the perspiration. Zielewicz arrives at the following conclusions:

1. Pilocarpin is a reliable diaphoretic in the diseases of children.

2. The unpleasant symptoms which occasionally follow the administration of this remedy interfere with its more general use.

3. To eliminate or diminish these complications the following rules should be observed:

a. The dose of pilocarpin should be as small as possible.

b. A small amount of morphia should be administered with the pilocarpin, best in the proportion

of ten pints of hydrochlorate of pilocarpin to one pint of hydrochlorate of morphia.

c. To prevent collapse a few drops of camphorated oil should be added to the solution.

Dr. Felsenreich, assistant to Prof. Gustave Braun at the Vienna General Hospital, observes that Dr. Massmann's statements (*Medical Times and Gazette*, July 13th, page 56), on the employment of pilocarpin in the induction of premature labor must lead to further inquiry into the action of this substance on the uterus. At Prof. Braun's request he tried the efficacy in nine cases of ataxy of the uterus, with reference to its future employment in cases of hemorrhage produced by this cause. In but three of the cases did the hypodermic injection take effect, and that only at the end of ten minutes; so that it can not be regarded as a suitable means for combating active hemorrhage, in which promptitude of action is so important a factor. As in these cases, too, there is no time to examine the action of the heart, another contra-indication arises, for, as Petrin has shown, whenever this action is in any wise abnormal, the greatest care is required in the administration of pilocarpin, for arrhythmia or an arrest of its action may then be easily induced. Indeed, as any considerable hemorrhage does greatly disturb the action of this organ, this itself is a contra-indication. These considerations do not apply to the induction of premature labor, and additional trials of the power of pilocarpin for this purpose may be made without danger.

Dr. P. K. Kretschmar adds, in the *Hospital Gazette*, that the *Hydrochlorate of Pilocarpin*, derived from the alkaloid found by E. Hardy in the leaves and in the root of *pilocarpus pinnatus*, is, in many respects, the most valuable of the preparations of *jaborandi*. It comes in small, white crystals, very soluble in water, and is for different reasons especially adapted for *hypodermic* medication. Its action resembles that of the drug itself, but it is *more uniform* and reliable than either the infusion or the fluid extract. It also influences the bronchial secretions by making them more fluid, and it has been used with advantage in croup, bronchitis, etc. A solution is made by dissolving one-half a grain of hydrochlorate of pilocarpin in thirty minims of pure water. I use in cases of children from six to ten years of age, ten minims of this solution, $1\frac{1}{2}$ grain hypodermically, and repeat the injection once or twice the next or following day. To adults I have given twenty minims ($\frac{1}{3}$ grain) repeated every day for three days.

The simplicity and almost painless manner of its administration, the fact that its hypodermic use does not cause any irritation, or abscess at the point of injection, the easy manner by which we are able to administer it in a state of uræmia, unconsciousness during convulsions, etc., make it a most valuable remedy in the treatment of children. I used it in five cases of parenchymatous nephritis following scarlet fever, four of which occurred in children under twelve years of age, and I can only state that its action was very satisfactory, although it produced

considerable vomiting in one and moderate emesis in another case.

TREATMENT FOR DYSPEPSIA.

Taken from Naphey.

- ℞. Acid. nitro-mur. dil..... 3 ij.
- Acid. hydrocy. dil..... min. xxv.
- Tinct. arnicæ..... j.
- Tinct. gentian. comp..... ʒ j.
- Infus. sennæ, q. s. ad..... ʒ iij.

M. Sig. A tablespoonful two or three times daily in dyspepsia with sluggish action of the liver.

The efficacy of this prescription may often be increased by giving with each dose the following pill:

- ℞. Zinci sulph..... gr. i-ij.
- Ext. gentianæ..... gr. iv.
- M. ft. pil. No. j.

T. Hawkes Tanner, M.D.

One of the best preparations in dyspepsia with flatulence is the following, recommended by Prof. Robinson:

- ℞. Sulph. sodæ..... ʒ j.
- Tinct. nucis vom..... ʒ v.
- Aquæ..... ʒ iv.

M. Sig. A teaspoonful thrice daily, after meals.

Prof. T. Gaillard Thomas employs the following, especially in cases of habitual indigestion:

- ℞. One rennet, washed and chopped.
- Vini rubri..... Oj.

Macerate for twelve days, and then decant, filter and add:

- Acid. nitro-mur. dil..... ʒ ij.
- Tinct. nucis vom..... ʒ ij.
- Bismuth subnit..... ʒ ij.

M. Sig. One tablespoonful in a quarter of a tumbler of water before each meal, as a digestive tonic.

J. M. DaCosta, M.D., Philadelphia, uses the following in functional indigestion owing to a want of proper secretion of gastric juice:

- ℞. Acidi nitro-mur. dil..... ʒ ij.
- Vini pepsini..... ʒ iij.

M. Sig. A teaspoonful three times a day, before or after meals.

Where there is constipation, add also:

- ℞. Pulvi. rhei..... ʒ j.
- Quinæ sulph..... gr. x.

M. ft. pil. No. x.
Sig. One to be taken at night.

If this be not sufficient to produce a laxative effect, take one night and morning. Meat diet almost exclusively, avoiding starchy substances.

William Aitken, M.D., Edinburgh, contributes the following:

- ℞. Sodæ bicarb..... ʒ v.
- Potassæ nit..... ʒ j.

M. ft. chart. No. xx; order one, two or three times a day in those forms of indigestion marked by excessive acidity and heartburn. At the same time free excretion from the liver and bowels must be

sustained by occasional doses of blue pill or podophyllin, combined with extract of colocynth and of henbane, while exercise and diet are duly attended to.

R. Ammoniac carb..... ℥j.

Ext. gentianæ..... ℥ij.

M. ft. pil. No. xx, one thrice daily in weakened digestion from over fatigue.

R. Ext. nucis vom..... } aa gr. ss.

Ferri sulph..... }
Ext. colocy. comp..... gr. iv.

M. ft. pil. This combination, taken early in the morning, generally induces gentle action of the bowels.

THE TREATMENT OF THE DIARRHOEAS OF CHILDREN.

By JEROME WALKER, M.D.

The general treatment of the diarrhoeas of children has been, and is now, based mainly upon the belief in an inflammatory origin, and, secondly, upon a dyspeptic one. Alteratives, sedatives, opiates, emollients and astringents or laxatives with a secondary astringent effect are tried in rotation.

The character of the fecal discharges are said to corroborate the inflammatory theory. Movements containing undigested material are alone referred to a dyspepsia (gastric or intestinal,) while acid, mucous, slimy, green, watery and bloody discharges are considered evidences of different grades of inflammation.

But opposed to this theory are the facts:

1st. That the mucous membranes of the young child are very delicate and easily irritated; that the irritation may be local in its application, or it may be the result of poisonous gases acting through the nervous systems, or that of noxious germs absorbed into the blood.

2d. That, owing to the plentiful supply of blood-vessels in the mucous membranes, and to the sensitiveness of the nervous tissue, an irritation generally produces a hyper-secretion of mucus, an exudation of water from the blood, a slight extravasation of blood sufficient to color the secretions, or it gives rise to all combined, without any evidences of inflammation.

3d. That, owing to the rapid elimination in the young of waste and absorbed material by the kidneys and intestines, repeated irritation is necessary in a strong child before there may be any thickness or ulceration of the gastric or intestinal mucous membrane.

4th. That the mucous secretions of the young child—according to Dr. Jacobi—are normally more acid than those of an adult; and that acidity without inflammation is quite promptly produced by an irritant.

5th. That the greenish color of diarrhoea discharges, though occasionally due to biliary matter, is most often the result of acid secretions, as shown by Pro. Armor and others.

Post-mortem appearances are not always reliable. In certain apparently well-marked cases of so-called inflammatory diarrhoea, no signs of inflammation are found after death, and vice-versa. This has been the experience of the best clinical observers.

The results of inflammation, when found, consist of a thickening and ulceration of the mucous membrane, mainly in the ileum and about the ileo-cæcal valve, but these results are found, as a rule, in cases of chronic diarrhoea only. The ordinary appearances are a pale or red swollen mucous membrane, with a large secretion of acid, mucous and discolored feces, and nothing more.

The experience of the last five years has convinced me that the majority of the cases of acute or sub-acute diarrhoeas ordinarily met with, are the results of direct irritation from indigestible food, or they follow a weakened nerve-tone, an inability of the sympathetic system of nerves to carry on its functions, or they depend upon both causes.

For an irritation to produce inflammation, or weakened over-loaded blood-vessels to give rise to thickening and ulceration, time is necessary. How much time is needed? I do not know. Probably differs in different individuals. Dr. J. Lewis Smith believes that if any diarrhoea continues a week it is inflammatory. The self-limitation of two or two and a half days claimed for cholera infantum by Dr. Emerson,* and the now well-ascertained facts that acute diarrhoeas under favorable meteorological and sanitary conditions subside within forty-eight hours after their inception, and that diarrhoeas not relieved within a week are difficult of cure—would point to the eighth day as the turning point toward chronicity.

The causes of diarrhoea in children may be considered as irritative or asthenic.

Food, adulterated, poorly cooked, of poor quality, or of good quality, if given in too large a quantity, too fast or too often—is an irritant. Improper feeding is a fruitful source of diarrhoea.

Dentition in weakly or nervous children, occurring at a time when the secretory and excretory organs are developing, is an irritation. So also is the eruption of several teeth at one time—in hot weather especially—and also the pressure of developing teeth against the inner lip of the bony socket, which may not develop its shape pari-passu with the development of the growing teeth.† Undue pressure on the gums can be relieved by a prick of a needle, a slight or deep incision, as the case may be.

An atmospheric temperature of 60°, if continued for two or more days, might as well as

* "Some Points in the Pathology and Treatment of Cholera Infantum." *Bost. Med. and Surg. Jour.*, July 27th, 1878.

† Tomes' "Dental Surgery," p. 52.

day, will often produce diarrhoeal diseases. A temperature of 80° and above, whether combined with much dryness or moisture of the air, will, in a few hours, give rise to genuine cholera infantum, characterized by "projectile" vomiting and purging and intense prostration.

High temperatures weaken the nervous system, convert milk and "artificial" foods into irritants, by acidification and putrefaction. Cold and damp as well as heat and moisture, seem to act principally on the large intestine, producing a dysentery, or they convert a simple diarrhoea into a bloody discharge.

Bad air and bad water, whether through "germs" or gases, are capable of producing severe diarrhoea. A quite frequent result of malaria in this city, in children under two years of age, is a dyspeptic diarrhoea, due to weakened nerve power. Quinine promptly cures it.

Simon* contends that "the mucous membrane of the intestinal canal seems peculiarly to bear the stress of all accidental putridities which enter the blood," while Dr. George Johnson, in a series of interesting articles† claims that during hot weather diarrhoea is mainly produced by bacteria, infusoria and fungi. There are certainly enough opportunities for bacteria to develop in the midst of imperfect sewerage and drainage of large cities. In an institution under the care of Dr. Moreau Morris, an epidemic of cholera infantum was "stamped out" by attention to the plumbers' bad work.

Intestinal worms sometimes act as irritative causes of diarrhoea.

Nursing children are liable to diarrhoeal disorders if the nurses are intemperate, overheated, are easily excited, have tuberculosis, or have not had proper food and air. I have met with a few cases where constipation in the nurse gave rise to diarrhoea in the child. The constipation of the one and the diarrhoea of the other patient were relieved by an aperient given to the nurse.

If the above arrangement of the causes of diarrhoea is correct, the indications for treatment of the majority of the cases of children's diarrhoea are, to prevent and relieve indigestion, and to maintain the health and power of the nervous systems. These indications are met by hygienic measures, and a very moderate use of medicine. The sensitive stomach of the sick child is liable to revolt against large doses, strong odors and unpleasant tastes.

HYGIENIC TREATMENT.

A severe diarrhoea in a nursing child will sometimes be relieved by seeing to it that the nurse has sufficient and varied food; is free from worry and disease; is cleanly, especially as to her nipples, has an abundance of fresh air, is not overheated; that she has no dyspepsia or constipation.

As an artificial food for babies, cow's milk is still the best, provided it is pure, fresh and can be easily digested. Whole milk, warm from the cow, milk with one-fifth to one-third cocoa added, or prepared according to Drs. Chapman, Dawson and Jacobi's formula, is better, as a rule than any of the patented foods, though Jewell's, Ridge's, Neaves', Nestle's, Liebig's, or the Imperial Granum, will be occasionally useful, given with the milk. Beef juices, and not beef teas, are serviceable in diarrhoeas. Ice is demanded where there is much thirst and large watery stools. Water may be given often, but in small quantities. Hypodermic and intravenous injections of cows' and human milk will yet afford, in my belief, a valuable method of nourishing and keeping alive children who have, up to this time, been considered hopeless.

Air is an important adjunct in the treatment. Country air, unpolluted by factory gases or the germs from overcrowding of cities; salt air, the air obtained by the change of a sick child from one part of the city to another; the being for eight, ten, twelve, or fifteen hours even, in the open air, will assist in the relief of many so-called incurable cases, and, of itself, will cure some severe diarrhoeas. Good air, and plenty of it, is a wonderful nerve-strengthening agent. While a free circulation of air is necessary by night as well as day, it is important to protect the body from damp by flannel under-clothing or bands; from currents of heated air by moistening the air of the room by suspending in it cloths dampened with water, or by the evaporation of moisture from a large piece of ice placed in the room. Straw ticks, wire woven mattresses and "hammocks" are the best beds for summer use.

Bathing, properly used, is at times a necessary element of treatment. Baths are to be given rapidly to and followed or accompanied by brisk, firm friction with the hands. They are to be given cold or hot, and made stimulating by mustard or salt, if desired; or they are ordinarily best given tepid, and followed by cold spongings. Prompt reaction is of course the test of their usefulness.

Great prostration and severe diarrhoeas are best controlled, according to my experience, by cold baths frequently repeated, according to the method explained by Dr. Holmes, of Ontario, * and by Dr. Comegys, of Cincinnati. The temperature of the body should be kept at 100° F. The dangers of cerebral congestion and irritation are lessened by cold spongings or cold compresses with friction, as advised by Dr. Winter nitz.†

For the reduction of high temperatures, and the induction of a free action of the skin, kidneys and liver, inunction is valuable. No better

* "Fifth Diseases."

† London *Lancet*, Sept. and Oct., '78.

* Trans. of International Med. Cong., 1876.

† London *Pract.*, August, 1878.

treatment for chronic diarrhœa has been devised than the injection into the rectum of from half to one pint of water, at the ordinary temperature of the air twice a day or after each movement. Such injections act on the sympathetic nerves, increasing their tone.

Sleep is undoubtedly a "sweet restorer" of lost nerve power. A sleeping baby will have less movements than a wide-awake, restless one. When natural sleep is impossible—and it is rarely so in the open, fresh air—sleep-producing medicines may be necessary.

MEDICINAL TREATMENT.

In over one-half of the cases of diarrhœa that have come under my care during the last few years, pepsin has been the only medicine necessary; has been given after each movement, in 3 to 5 gr. doses, in milk, or in a mixture of glycerine. Dilute muriatic acid, cinnamon or winter-green water, or combined with bi-carb soda, 2 grs., if there was much acidity of the secretions. If an astringent is necessary it may be added to the pepsin mixture. Generally 5 or 10 drops of the fl. ext. of black-berry root, or of the geranium maculatum, is sufficient for a dose. These astringents have seemed to me to be preferable to Kino, Catechu, etc.

The medicinal mist. rhei et sodæ has been used in about one-fourth of the cases where an astringent and alkali were needed. Generally but a few doses were needed when pepsine could be used.

Malarial diarrhœa is relieved by the inunction of 3 grs. of quinine twice or thrice a day till 12 grs. are used.

The hypodermic injection of $\frac{1}{60}$ gr. of strychnia, p. r. n., in severe prostration, not otherwise amenable to treatment, is valuable.

One-drop doses of tr. or wine of ipecac., or a fraction of a drop of the fl. ext., or of ac. carbo-lic, given every hour, will ordinarily relieve the vomiting occurring with diarrhœas.

Aromatic spirits of ammonia seem to be a more reliable stimulant than alcohol.

Cod-liver oil, dialysed iron, and the iodide of iron carefully given, after meals, beginning treatment with small doses, are serviceable in chronic diarrhœa.

Calomel, opiates, sedatives or strong astringents were used in a small proportion of cases—less than one-eighth, and are seldom deemed necessary if the hygienic treatment can be carried out.

In closing this paper I may add that it was written as an outgrowth of a large experience in the treatment of diarrhœas—is a contribution of personal experience only, the result of what seems to me to be a better and more rational method of treatment than I was instructed in in my college days. Certainly it has been attended in my hands by a larger proportion of

recoveries than by old methods. The record of individual cases must be postponed to another time.

ANÆSTHETICS IN CHILDBIRTH.

On this subject M. Lucas Championnière, of the Maternity of the Hôpital Cochin, gives his experience in the *Gazette des Hôpitaux*:—

In some cases, when begun in good time, a few drops only are given from time to time on a handkerchief, the woman herself holding this and breathing the chloroform at the moment when she feels the contractions. Great relief is attained, the woman scarcely feeling the acuteness of the pains, and being able to converse with those around her. She, so to say, anæsthetizes herself, proceeding thus gradually until complete dilatation is accomplished, the accoucheur being apprised, by a more urgent resort to the chloroform, that the head has reached the vulva. It is for him alone to determine whether the dose should then be increased or whether the woman should be left to her suffering at the last moment. This is the most simple type of case, in which a very small quantity of chloroform is required. But there are women who are more rebellious to the action of chloroform, especially if its administration is only commenced after they have already suffered severely for one or several hours. They derive no benefit unless it be given more abundantly. They do not lose consciousness, but they have a tendency to drowsiness, during which they know all that is going on; and when this tendency has passed away, they instantly demand more chloroform. In the intervals they remain habitually silent, but care must be taken not to give the chloroform at too long intervals, as the doses would then have to be exaggerated in order to produce sufficient anæsthesia. With this precaution the labor is safely terminated, the women struggling, and showing that they feel the contractions, but without any acute pains. There are other women who are still more refractory—viz., those in whom labor commences only long after the membranes have been ruptured, when the uterus is hard and contracted, or when the labor has very far advanced. In such cases as these Simpson's plan must be followed, of giving a considerable quantity of chloroform at once, pushing on the inhalations without fear, until the woman is completely insensible. Even this is not "surgical anæsthesia," it is only the sleep which precedes the stage of excitement; and if these inhalations be continued for fifteen or twenty minutes, we may then prolong the state of semi-anæsthesia until the end of the labor. The result of semi-anæsthesia, M. Lucas Championnière observes, is the suppression of pain, and of the symptoms of excitement which

so often accompany it. The uterine contractions are not suppressed but regularized, occur at more regular intervals, and become efficacious. The influence, indeed, exerted on the progress of the labor is favorable. It usually proceeds rapidly, and sometimes this rapidity is truly surprising. Not only is this anæsthesia without danger, but even without any inconveniences. The labor, in spite of what has been said, is not delayed, and the child, at its birth, exhibits no signs of insensibility. The sequences of delivery are better, and the strength is more rapidly recovered. An important fact to be insisted upon is that, if we desire to keep within the limits of small doses, the inhalations must be commenced before the woman has suffered much. As to contraindications of his procedure, M. Lucas believes they must be excessively rare; and he does not consider as such either cardiac or pulmonary affections.

TREATMENT OF AMENORRHŒA.

The *Practitioner* says that Professor Courty, of Paris, employs a pill composed of powdered rue, savin, and ergot, of each five centigrammes (2-3 gr.) and aloes from 2-5 centigrammes. Of these thirty are ordered, and three are taken the first day, six the second day, and nine the third day, always in three doses. They are suited for cases of idiopathic amenorrhœa, without great reaction on the economy, and when there is reason to suppose that the suppression of the menses is due either to an insufficient determination toward the genital organs or to a difficulty of discharge, due to inertia of the uterus. In order to encourage the fluxion toward the genital organs, Dr. Courty orders, before beginning the pills, foot baths, sitz baths, and fumigations. He also applies leeches to the labia during the three days the pills are being taken. The pills generally induce colicky pains and often a little diarrhœa.

TREATMENT OF PUERPERAL FEVER.

In cases of puerperal fever, Dr. Jas. Glover gives the following mixture every three or four hours.

R. Quinæ sulph.....	grs. ij.
Tr. ferri chlor.....	Mx.
Spti. chloroformi.....	Mx.
Syrup simp.....	3 ss.
Aquæ destil.....	ʒ i.

M.

He also gives a pill containing half a grain of opium, every three, four, six, or eight hours, and applies a large poultice sprinkled with laudanum over the abdomen. This is renewed every three or four hours. He orders the

vagina to be syringed out, at least twice a day, with warm water, containing a little Condy's fluid. He rejects ipecac on account of its nauseating properties, and calomel on account of the intestinal irritation it produces. For diet he gives beef-tea or chicken soup, brandy and arrow-root.—*The Lancet*.

JOHNSON'S FLUID BEEF.

Soon after receiving a sample of this fluid beef we had a good opportunity of putting its value to the test of actual experience. We had under our care several children who were suffering from very severe attacks of whooping-cough, and whose appetites were so bad, and digestion so weak, that it was difficult to get them to take sufficient amount of nourishment. In the meantime a tin of Johnson's Fluid Beef having been sent to us, we were induced to give it to our little patients, and we must confess that the trial was a very satisfactory one. It was given sometimes in the form of soup, sometimes spread on bread-and-butter; but in whichever way it was given it was taken when other kinds of food were refused; it was well borne by the stomach, and appeared to furnish so much nourishment that there can be little doubt it contains a large quantity of the most nutritious elements of food.—*Dublin Medical Press and Circular*.

THE RELATION OF ALBUMINURIA DURING PREGNANCY TO PUERPERAL CONVULSIONS.

In a discussion at the New York Obstetrical Society, Dr. Noeggerath said that at a previous meeting it had been stated that thirty per cent. of pregnant women had albuminuria. He thought the proportion was not greater than thirteen or fourteen per cent. It had been further stated that it was safe to treat cases of albuminuria, during pregnancy, by saline diuretics. He had often seen such cases too late. Under certain circumstances, if albumen was present, it was proper to induce labor as rapidly as possible. It was neither the amount of albumen nor of other constituents of the urine which indicated the immediate danger of convulsions. He considered two conditions ominous: I. Albuminuria co-existing with anæmia, or hydræmia. II. Albuminuria co-existing with some nervous disturbance, as severe headache, or dimness of sight. Another dangerous class was that in which albuminuria occurred in very plethoric subjects, where the pulse was very full and hard. If, however, a patient in ordinary health was found to have a slight amount of albumen in the urine, there was no objection to waiting until remedies had been tried. There was only one reliable remedy—Tarnier's treatment by skimmed milk. He had seen albumen diminish considerably within three days, under its use. Another remedy he was astonished not to hear

spoken of was chloral. He mentioned a case in which the albumen disappeared from the urine as long as chloral was given, and reappeared as soon as it was stopped. There were different forms of albuminuria. That of pregnancy was not the same as that which caused the serous effusion of dropsy. Chloral had, perhaps, some influence in changing the character of the albumen.

THE CANADA MEDICAL RECORD,

A Monthly Journal of Medicine and Pharmacy.

EDITOR:

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

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TO SUBSCRIBERS.

Subscribers in the country will oblige by looking at the date on their wrapper. The date given is that to which the subscription has been paid.

We have received a copy of the first number of *L'Abeille Medicale*, Journal de l'Ecole de Médecine et Chirurgie de Montréal, de l'Hôpital Hôtel Dieu, de Maternité Ste. Pelagie et des Dispensaires. Redacteur en chef. Ts. E. d'Odet d'Orsonnens, M.D.

The history of the attempt of Laval University to establish a Medical branch in Montreal must be fresh in the minds of our readers, as well as the fact that so far the attempt has failed, and the Montreal School of Medicine still exists, triumphant, and perhaps defiant. We do not intend, at all events at present, to enter into the merits of the dispute, but simply to announce that the journal, the name of which heads this notice, appears as the property and the mouthpiece of the Montreal School of Medicine. We wish we could congratulate it on its appearance, but honestly we cannot do so, for School Medical Journals are in our opinion a nuisance, which we would exterminate as we should the Colorado Beetle. We make this statement carefully, candidly and thoughtfully, and well aware what some will say. The present number is well got up, and has some good selections. Did it appeal to a larger constituency than the graduates of the "School," it would be sure we think to receive considerable support. Its very announcement, however, is not likely to captivate the profession generally.

The present number contains a protest on the part of the "School of Medicine and Surgery" with reference to the Laval difficulty, which is intended as a contribution to the Medical politics of the country. It strikes one as somewhat singular, however, that the Editor and some of the contributors to *L'Abeille Medicale* are announced in it as connected with and Professors in the Montreal School of Medicine, while our contemporary, *L'Union Médicale du Canada*, advertises these same gentlemen as Professors in Laval. Surely they cannot be double-headed professors.

We appeal to our readers for original communications. It is not creditable to the large number of the profession in every section of the Dominion, who receive the RECORD, that they so seldom furnish us with the results of their observations. We fear that among many the habit of keeping notes is not so prevalent as it should be. If this is the case, the loss is a double one, first to the practitioner, in whom note-taking would be sure to develop a closer and more systematic investigation of disease, and secondly, the medical public, who lose the details and the results of many important cases.

VICK'S FLORAL GUIDE.

Of the many Guides and Seed and Plant Catalogues sent out by our Seedsmen and Nurserymen, and that are doing so much to inform the people and beautify and enrich our country, none are so beautiful, none so instructive, as *Vick's Floral Guide*. Its paper is the choicest, its illustrations handsome, and given by the hundred, while its colored plate is a gem. This work, although costing but five cents, is handsome enough for a Gift Book, or a place on the parlor table. Published by James Vick, Rochester, N. Y.

PERSONAL.

Dr. Brown, of Beachville, Ont., has been appointed Assistant Physician to the Provincial Lunatic Asylum, London, Ont., in place of Dr. E. H. Beemer, who has been appointed Resident Physician to the Refractory Department of the Asylum, which has just been completed and opened for the reception of patients.

Sir William Jenner has just retired from the Chair of Morbid Anatomy, in University

College, which he has filled with rare success for nearly thirty years. *The Lancet* says that the demands made upon his time by his appointments and the public, have compelled Sir William's resignation.

The President of the Ontario College of Physicians and Surgeons, Dr. Duncan Campbell, died at his residence in Toronto, on the 5th February. He was born at Edinburgh, in 1811, and came to Canada about forty-five years ago, and settled in the town of Niagara. He removed to Toronto in 1850, and has been a resident of that city ever since. He was a licentiate of the Royal College of Physicians, Edinburgh. He became a homœopath subsequent to his graduation. On the formation of the Homœopathic Medical Board in 1859 he was elected President, and held that position until the Board was merged in the General Medical Council. His election last year as President of the Council was a tribute to his abilities, which will be appreciated when it is stated that there are only five homœopathic representatives in that body, and some twenty-five regular practitioners.

Dr. Hutchinson, Assistant Demonstrator of Anatomy, Bishop's University, has been appointed Surgeon to the Allan Mail SS. "*Peruvian*."

REVIEWS.

Pocket Therapeutics and Dose Book, with Classification and Explanation of the Action of Medicines; Index of Diseases with Appropriate Remedies; Classification of Symptoms; Poisons and their Antidotes, &c., &c., by MORSE STEWART, JR., B.A., M.D., Detroit, Michigan, Price 50c.

This is a very small volume indeed, so small that it could with ease be carried in the vest pocket. It, however, contains a great deal of valuable information, and as a remembrancer we can confidently recommend it.

Essentials of Chemistry, Inorganic and Organic, for the Use of Students of Medicine, by R. A. WITTHANS, A.M., M.D., New York: William Wood & Co., 1879.

This little volume, as its name indicates, contains but the essentials of chemistry. All topics which are not "essential" to an understanding of those chemical problems which have a direct bearing upon the practice of Medicine are omit-

ted. More attention is given to the Chemistry of Therapeutics than of Pharmacy, while Physiological Chemistry, which must now be regarded as one of the most important foundations of rational medicine, is treated in a concise and readable manner. The modern system of notation is adopted by the author. It is just such a work as would commend itself to a chemical student for perusal just previous to examination.

Gastro-Elytrotomy by H. J. GARRIGUES, M.D., Reprinted from the *New York Medical Journal* in pamphlet form of 78 pages.

In this essay the author gives a full account of the history and method of performing this revived operation designed to accomplish delivery during child-birth in cases of extreme pelvic distortion where it would be impossible to otherwise extract the child's body, even when mutilated, *per vias naturales*. In such cases the fearful alternative of Cæsarian Section and the great mortality following it has prompted the invention of other methods whereby the child may be removed without either opening the peritoneum or incising the uterus.

Gastro-Elytrotomy, or, as it is sometimes called, Laparo-Elytrotomy, is one of these methods, and, according to the author's conclusion, is to be preferred to Cæsarian Section, as there is much less danger of shock, peritonitis, metritis or incarceration of the intestines and, while there is great danger in wounding some large vessels, and having excessive hæmorrhage this latter is no greater than what is frequently met with on opening the uterus. Four or five assistants and ordinary skill are all that is required for its performance. The operation was first invented by Joerg in 1806, improved by Ritz, in 1820, both of Germany, and practised by Beaudelocque in 1823. It fell into desuetude until re-invented by Dr. T. G. Thomas in 1870, who was not aware of its having been previously performed. As Dr. Thomas' method differs in many respects from the methods of his predecessors, and from his success as well as that of Dr. Skene who adopted it, he is justly credited with the honor of introducing an operation which promises to replace Cæsarian Section and save the lives of the majority of mothers and children in those unfortunate cases requiring such interference.

The anatomy of the parts through which the

incisions pass are fully described, as well as the details of the operation and after-treatment. Briefly the operation is performed as follows: An incision an inch above and parallel to Poupert's ligament, extending from the pubes to the anterior superior spine of the ilium, is made, and all the parts beneath are divided until the peritoneum is reached; this latter is pushed upward without being opened and the vaginal wall found. A blunt wooden instrument held in the vagina forms a basis upon which to cut when making an opening in its wall, the bladder is also held so as to cover the ureter and form a guide to the knife. As the vagina is plentifully supplied with blood vessels the incision through it is made as low down as possible, and just sufficient to admit the points of the index fingers, both of which are to be introduced and the required enlargement made by tearing the tissues apart. The uterus being tilted strongly to the opposite side, so as to bring its axis in a line with the womb, the hand is introduced into the womb and os uteri and the child and placenta extracted. Dr. Thomas took 35 minutes and Dr. Skene 10 to 15 in performing it. The occurrence of severe hæmorrhage will make considerable difference in the time occupied.

The right side should be chosen for reasons mentioned but, as the operation cannot be repeated at the same side, the left would be the only choice if required to be repeated. As mention of the operation is only found in the later text books, many practitioners have given but little study to the subject, to such this brief outline may serve to draw their attention to this *dernier resort*. Fortunately the cases requiring this procedure are but seldom met with in Canada, the majority, if not all the cases, of Cæsarian Section being on the dead mother to save the life of the child. At present the record of the operation rests in a few cases, but, from the remarkable success of Drs. Thomas and Skene, it is probably, when more widely known, destined to replace Cæsarian Section for the purpose of removing a living child from a living mother, with a better chance of saving the life of latter. To those desirous of being well informed as to what can be done for such patients we recommend a perusal of this pamphlet, in which they will find full details of the operation, its difficulties, and after-treatment.

No physician can tell when he may be called upon to interfere, and this is one of the emergent operations which call forth his knowledge and ability to fulfil the trusts reposed upon him. There may be no time to look up the subject, a life depends upon what he may decide upon doing, and therefore it is the duty of every physician who practices midwifery to know what can be done, even if he never has the opportunity of doing it.

Habitual Drunkenness and Insane Drunkards. By JOHN CHARLES BUCKNILL, M.D., London, F.R.S. London: Macmillan & Co., 1878. Boards, \$1.

The author of this readable little volume is already well known to the profession as an able writer, having published, in company with Tuke, an excellent work called "A Manual of Psychological Medicine."

The occasion of the present work was the recent introduction of the Habitual Drunkards Bill in the House of Commons by Dr. Cameron, Member for Glasgow, and unfortunately for the subject matter, as well as the dignity of the author, the tone is decidedly controversial.

The question at issue is the wisdom of providing Asylums for Inebriates, which logically hinges upon the question whether drunkenness is a vice or a disease. The author's opinion could not be more felicitously expressed than in the following sentence, page 39:—"My position is briefly this, that what is called Dipsomania is either a vice leading to disease in the ordinary pathological sequence: or it is an actual and recognisable form of disease of the brain with evidence of its existence more cogent than the mere desire for drink." The discussion of so important a measure as the care of this extensive class of habitual drunkards by a man so well qualified by general and special fitness as Dr. Bucknill, who has, by the way, visited all American Inebriate Asylums but one, cannot be otherwise than interesting to any physician, and will doubtless largely influence any opinion in England in regard to the advisability of erecting Asylums for these unfortunates.

A novel though philosophic opinion is advanced in Chapter IV that while alcohol produces insanity in many cases, it may, judiciously used, prevent other causes, as "grief and anxiety," "worry and over-strain," from operating so

powerfully upon the mind as to cause mental alienation.

The text is large and clear, and free from typographical errors.

MEDICO-CHIRURGICAL SOCIETY.

MONTREAL, Jan. 10, 1879.

A regular meeting of the Medico-Chirurgical Society was held this evening in the Library of the National History Society's rooms. In the absence of the President, the 1st Vice-President, Dr. Ross, occupied the chair.

There were present: Drs. Ross, Molson, Ritchie, McConnell, Baynes, Buller, Osler, Marston, Loverin, Proudfoot, F. W. Campbell, Guerin, Bell, Bessey, Reddy, Roddick and Edwards.

The minutes of last regular meeting were read and approved.

Dr. Kerry was balloted for, and unanimously elected a member of the Society.

Dr. OSLER exhibited the following pathological specimens:—

(1.) Liver from case of atrophic cirrhosis in a woman aged 40, under care of Dr. Ross. The organ is remarkably reduced in size, and covered with large prominent knobs. On section, the greater portion of liver substance is replaced by fibrous tissue, the strands enclosing groups of lobules which present a yellowish color.

(2.) Kidneys from a woman aged 60, the subject of acute Bright's disease, under care of Dr. Ross. The organs are small, though not atrophic, and appear to be in the molted or conglomerate stage; numerous small areas in the cortices being in a condition of fatty degeneration, appearing as opaque white spots on a somewhat reddened back-ground. These fatty areas can be plainly seen from the surface, and give a curiously spotted or granular appearance to the organs; indeed it was to this form that Rayer gave the name of "granular" kidney, now usually restricted to the atrophic variety.

From the same case, an enormously thickened pleura, involving both layers, confined chiefly to the lower and diaphragmatic portions.

(3.) The organs from a man, the subject of stricture, chronic cystitis and surgical kidney, under the care of Dr. Roddick. Four days before death a jaundice had developed, and became very intense, without any obvious cause. Death took place suddenly and unexpectedly.

Heart relaxed, right chambers full, left empty and very placid. The stricture was just in front of membranous portion of urethra. The bladder is hypertrophied; mucous membrane congested, not ulcerated, but presents several round orifices leading to saccular dilatations, one of which on the right side is as large as a small apple; the others, five or six in number, range in size from a pea to a walnut. The ureters do not appear inflamed, but in the pelvis of right kidney there was found muco-purulent matter. The kidneys are enlarged, particularly the right, in which, on section, numerous areas of suppuration can be seen, chiefly in the cortex, but also running down the pyramids. Only a few purulent foci were found in the left organ.

The liver was large and fatty; common bile duct pervious, and nothing was found to account for the jaundice.

Dr. BULLER read a paper on the use of Eserine in ophthalmic practice. He remarked that the calabar bean was a remedy that had not obtained much use till comparatively recently, that is until an alkaloid prepared from the bean, and named Eserine, could be advantageously substituted for the solution of the extract. Several neutral salts of the alkaloid are in use; the sulphate is the one Dr. Buller has used. In prescribing it he orders a very small quantity at a time, say half a grain to one, two, or three drachms of distilled water. The solution formed is at first almost colorless, but soon turns red. A drop of such a solution does not cause any smarting sensation when put into the eye. In about fifteen minutes after, the pupil is strongly contracted, and twitching of the lids generally takes place. An emmetropic eye, if examined a few minutes after the solution has been applied, is found temporarily myopic. The effect of Eserine on the eye reaches its greatest intensity in about an hour, and then gradually passes off. It is claimed for Eserine that it increases the activity of the circulation in the anterior part of the eyeball, and lessens the pressure within the anterior chamber. This granted, its use would be specially conceded in cases where it was advisable to improve the vital power of the cornea. Some of the affections of the eye treated with more or less benefit by this remedy are glaucōma, various forms of corneitis, especially where there is a tendency to necrosis or destructive ulceration, phlyctenular disease both of the

conjunctiva and cornea, episcleritis, conical cornea, hysterical photophobia, paralysis of the iris and ciliary muscle, wounds of the cornea near the periphery, in which there is a tendency to prolapse of the iris or after a recent prolapse at this part has been reduced. It is also said to have a good effect when dropped into the eye before and after the ordinary operations for cataract, preventing prolapse of the iris at the angle of the wound, and diminishes the tendency to formation of pus during the healing process. Dr. Buller's experience of Eserine in glaucoma has been limited, but such as it has been it has led him to cherish little hope that we have found in it a substitute for iridectomy. He has been pleased with its result in the treatment of ulcers of the cornea, also in inflammatory infiltrations without ulceration. In the phlyctenular keratitis of children it has sometimes worked well, even when Atropine has failed to give relief. Dr. Buller could lay down no rule, except when one has had a fair trial and failed, then resort to the other. In paralysis of the ciliary muscle of old standing he had seen no benefit in its use, but in recent cases he had had good results.

Dr. PROUDFOOT considered Eserine a more elegant preparation and more to be relied on than Extract of Calabar Bean. In glaucoma he had tried it in a few cases, but had failed to get a full history of the cases. In phlyctenular keratitis and conjunctivitis he had found its action very satisfactory, especially in keratitis where infiltration has taken place. In mydriasis with a syphilitic history he had used it with good result. In deep-seated ulceration of the cornea it acts well, limits the production of the pus. He had also used it in traumatic cases. For two years he had used pylocarpine, the alkaloid of jaborandi. It is a permanent crystal, and not so deliquescent as Eserine.

Dr. BULLER said Eserine is equally useful on the system, and could be used hypodermically. It is said to be productive of a sense of sea-sickness in some cases.

Dr. REDDY had used pylocarpine in $\frac{1}{4}$ grain doses every eight hours to produce diaphoresis in dropsy following scarlet fever.

A vote of thanks to Dr. Buller was moved by Dr. REDDY and seconded by Dr. PROUDFOOT, and carried.

Under the head of Cases in Practice, Dr. F. W. CAMPBELL remarked that he had had lately two

cases of *Scarlatina sine eruptione*. The symptoms otherwise peculiar to the disease were well marked.

Dr. Ross said there are some cases in which the eruption is very faint, and laid emphasis on examining the root of the neck.

Dr. Ross related an interesting fact in the diagnosis of aneurism of the arch. Throw up the patient's head, and seize the cricoid cartilage; a strong pulsation is transmitted up the trachea and distinctly felt by the hand.

Dr. OSLER gave notice of motion to change the night of meeting from Friday to Saturday.

Dr. McCONNELL was announced as the reader of the paper at the next regular meeting.

The meeting then adjourned.

OLIVER C. EDWARDS, M.D.,
Secretary.

MONTREAL, Jan. 23rd, 1879.

A regular meeting of the Medico-Chirurgical Society was held this evening, the President, Dr. Henry Howard, in the chair.

There were present: Drs. Henry Howard, Kennedy, Kerry, Molson, Ross, Guerin, Alloway, McConnell, Bell, Blackader, Fenwick, Smith, Marston, Munro, Reddy, Ritchie, Osler F. W. Campbell and Edwards.

The minutes of last regular meeting were read, and on motion confirmed.

Dr. OSLER exhibited a specimen of obliteration of the inf. vena cava, extending from the orifices of the hepatic veins to the entrance of the renals.

Dr. ALLOWAY gave a brief history of the patient:—

J. G., aged 24, a packer by occupation, consulted him on the 12th of December for a sharp attack of diarrhoea, which lasted for over a week, and kept him in the house. He got better, and was about to go to work when the symptoms returned, and on the 21st swelling of the abdomen and legs was discovered. The patient then stated that he had been at times subject to swelling of the feet and legs for five or six years, but had never suffered any inconvenience until about two weeks before, when a varicose vein had burst, since which time he has worn an elastic stocking. The ascites increased rapidly, and the legs pitted as high as the hips. It was thought to be an unusual case of cardiac dropsy. A peculiar murmur was

heard over the heart, loudest at the ensiform cartilage, heard faintly in the axillary region and quite distinctly in the right vertebral groove. By the 28th of December the ascites had increased so much that to give relief the belly was tapped, and about a common pailful of serum removed. The fluid rapidly re-accumulated, though the legs were not so large. On January 6th, he had again to be tapped, and a somewhat larger quantity of fluid was drawn off. The urine was at first scanty but normal, no albumen; afterwards the amount rose to about 50 ounces daily. The veins of abdomen were slightly prominent. The diarrhoea had disappeared, but he vomited occasionally. On January 12th, symptoms of collapse set in, and there was tenderness over the swollen abdomen. He died on the 15th.

Dr. OSLER then gave the following account of the autopsy:—

The abdomen contained about a pailful of turbid serum; peritoneum intensely congested, but not cloudy or covered with lymph. Nothing unusual about heart or lungs. *Spleen* enlarged and firm. *Kidneys* large and fibrous. *Pancreas* very much indurated. *Liver* also increased in volume and excessively dense, and the lobules separated by a new growth of fibrous tissue. The inf. vena cava was found obliterated and converted into a dense fibrous cord from the diaphragm to renals, a distance of over 2 inches. Below the occlusion the vein was dilated, walls thickened and atheomatous; its branches were very large. The renals, spermatics and iliacs and the lumbar were greatly dilated. A very large vessel, almost equalling the cava in size, passed from the left renal vein along the left side of the aorta, opening into the common and the external iliac.

The azygos major was as large as the inf. cava, and the lower intercostals and azygos minor were also very large. The branches of the portal vein were full of blood, even to the remote vessels, the capillaries of the stomach and intestines being engorged.

The hepatic veins were enlarged and prominent in the sections of the liver; they opened into the cava by two tiny orifices, not so large as crow-quills. The veins of the diaphragm and ligaments of the liver were greatly distended, and the œsophageal plexus contained numerous large veins.

He remarked that the case presented many interesting pathological and clinical points. The great majority of cases of occlusion of the vena cava result from compression or the extension of thrombi from other veins. In this instance no such cause could be found, and it must be reckoned among the rare cases of obliteration from a primary change in the vessel itself, probably phlebitis. A case reported by Robin in the *Archives de Physiologie* was referred to, and the plate shown, where the occlusion had lasted for over twenty-two years, the collateral circulation having been carried on through the azygos and external abdominal veins. In this case the condition of the vein, the fibroid state of the organs, and the fact that for some years the patient had had swollen legs, go to show that the occlusion was of long standing. The circulation had been maintained chiefly through the azygos by its lumbar branches and through the large supplementary vein on the left of the aorta. The cases of Baillie and Reynaud are the only ones reported in which the occlusion also affected the hepatic vein. The sudden onset of the final illness was to be looked for in the state of the liver and portal circulation. The stenosed orifices of the hepatic veins had kept the portal system congested, and the blood had to find its way through collateral branches as in ordinary cirrhosis. The chronic congestion had induced a state of fibroid induration in the spleen, pancreas and liver, in the latter amounting to a tolerably advanced cirrhosis. The ascites came on suddenly, as it does sometimes in cases of ordinary cirrhosis without the usual premonitory signs.

Dr. J. B. McCONNELL read a paper on "Ichthyosis Hystrix." After giving a description of this remarkable skin disease, he brought before the Society's notice a case which had occurred in his own practice, interesting from the unusual manner in which the disease was distributed over the surface, and from its occupying certain localities usually thought to possess immunity from its attacks.

Remarks upon the paper were made by Drs. Reddy, Kennedy, Osler, Ross and Roddick, after which a vote of thanks was moved by Dr. KENNEDY, and seconded by Dr. RODDICK, to Dr. McConnell for his paper.

Under the head of "Cases in Practice," Dr. F. W. CAMPBELL mentioned the fact that he had

attended a child for scarlet fever, and six weeks after the same child had a second, with symptoms as well marked as before. Both attacks were followed by distinct desquamation.

Dr. HOWARD was announced as the reader of the paper for next meeting.

The meeting then adjourned.

OLIVER C. EDWARDS,
Secretary.

MONTREAL, February 7th, 1879.

A regular meeting of the above Society was held this evening in the Library of the National History Society Room. The President, Dr. Henry Howard, in the chair.

There were present: Drs. Henry Howard, Kennedy, Osler, McConnell, F. W. Campbell, Reddy, Proudfoot, Kerry, Ritchie, Loverin, Molson, Ross, Bessey, Brodie, Guerin, Roddick and Edwards.

The minutes of last regular meeting were read and approved.

Dr. OSLER exhibited the following specimens:

1. Disease of right vertebral artery leading to aneurismal dilatation, rupture, meningeal hæmorrhage. The patient, a man, æt. 34, had had syphilis eighteen months before. He was found dead in his bed on the morning of the 26th of January. At the post mortem a thin extravasation of blood covered the base of the brain, extending over the pons, medulla and cerebellum posteriorly, and to the optic commissure in front. The right vertebral artery was found dilated, the walls thickened, and at a point just beyond the entrance of the left vertebral, which was very small, there was a perforation the size of a pin's head. The basilar artery was also diseased, the coats very thick; carotids a little involved. No heart disease. Other arteries of the body healthy. From the absence of general arterial disease and the syphilitic history it was probable that the arteritis was of a specific nature. The vertebrae are not often affected in this form, and it is unusual for syphilitic arteritis to follow so soon after the infection. The histological examination would throw some light, and, when made, a report will be furnished.

2. A specimen of Theckel's diverticulum, taken from a patient dead of phthisis. It pro-

jected from about the middle of the ileum, its usual site, and the specimen measured about four inches in length, and was of nearly the same caliber as the intestine above and below it. The point was adherent to the mesentery by a small cord forming a perfect loop or snare. This represents one of the most common malformations of the bowel, and is believed to be the remnant of the omphalo-mesenteric duct.

3. A specimen of dilated stomach, following cicatricial contraction of an ulcer in the region of the pylorus, under the care of Dr. Ross in the Montreal General Hospital. Dr. Ross remarked that the patient had been admitted two and a half months ago, complaining specially of dyspeptic symptoms. The stomach was much distended, heartburn and vomiting, the latter more frequently at night was noticeable. Vermicular movements were seen every few minutes, the contractions extending from left to right. She vomited several pints of fluid a day or two after admission. She was treated by the stomach pump and sulphite of soda, fed per rectum with beef tea and brandy. Dr. Ross thought it not malignant, but fibroid disease of the pyloric end of the stomach. There was no history indicating gastric ulcer. The organ was enormously dilated, occupying the entire abdominal cavity, extending to the pubis. It measured eighteen inches in length, and had a capacity of eight pints. A quantity of a dark colored fluid, together with numerous cherry and plum stones, were contained in it. The muscular coat was very thick, especially the middle layer. Mucous membrane thin at cardiac extremity, thicker and more natural looking at the pyloric portion. Close to the pyloric orifice was an old ulcer, semi-lunar in shape, about two inches in length and half an inch in breadth, with a firm dense floor of fibrous tissue and a thickened indurated base. In contracting it has puckered the mucous membrane about the pyloric orifice, several folds projecting into the lumen. A drawing showing the position of the stomach *in situ* was exhibited by Dr. Ross.

4. A specimen of cirrhosis of the liver.

Dr. Ross gave a brief clinical history of this somewhat unusual case. The patient, a hard drinker, was admitted to hospital about Christmas, and stated (positively) that up to this time he had never suffered from any gastric or intestinal troubles. On admission the legs were

swollen, and there was ascites, which increased gradually. On Friday, Jan. 24, he began to vomit blood, and this continued on and off until Tuesday, when he died.

The organ presented an advanced degree of cirrhosis, and was very much reduced in size. The left tube was united to the right by a flat band of fibrous tissue, devoid of liver substance. The surface of the organ was covered with coarse knobs, and on section the amount of connective tissue between the lobules was very great.

5. A specimen of suppuration of the gall-bladder and bile passages owing to the lodgment of a gall-stone at the orifice of the common duct.

Dr. REDDY narrated the history of the case as follows:

Dr. REDDY stated that the patient had died at the age of 70. Was afflicted with spasmodic asthma. On the 24th of May last had an attack. On 11th of July he had an attack of jaundice. He went shortly afterwards to Quebec, and returned to Montreal in August. On 1st of September had a shivering fit. On examination the liver was found enlarged. Dr. Reddy was of the opinion that there was an abscess in the liver. In consultation with Dr. G. W. Campbell it was thought best to postpone any operation. He died on the third of February. The liver was not enlarged, but extending from beneath the anterior border was a large succular body, firmly attached below the omentum, duodenum and transverse colon. This proved to be the gall-bladder distended with pus. On dissecting the part in the hepatico-duodenal ligament a gall-stone the size of a marble was found at the orifice of the common bile duct, which was dilated behind to the size of the thumb, and contained a creamy bile-stained pus. All the ducts throughout the liver were dilated, filled with pus, which on section of the organ oozed out at points corresponding with these vessels, and gave the appearance of numerous small abscesses through the substance.

The gall-bladder contained about a pint of pus, and two small stones. The walls of the upper part were completely ulcerated away, and the pus bathed the surface of the liver.

Dr. HENRY HOWARD read a paper entitled "Responsibility and Irresponsibility in Crime

and Insanity." He remarked that there never was a time when there was so much written on mental science and mental diseases as at the present day, and yet mental diseases were less known and less studied now than ever by the medical practitioners. Asylums now shelter many who formerly were placed in hospital and under the supervision of medical students, and they are thus deprived of the clinical study of the insane. Dr. Howard suggested a plan to meet this want, that by a government order some of the insane now confined in the Longue-Pointe Asylum should be brought up to the Hospital and serve as instruction to the students.

Dr. HOWARD furthermore advised that this Society should, by petition, now ask for legislation by the Dominion Parliament to define responsibility and irresponsibility, and on scientific ground state where the former ends and latter begins.

Dr. HOWARD entered into a description and definition of the states known as moral insanity and moral depravity or criminal neurosis, and held that a man's moral responsibility depends on his mental organization. Punishment has hitherto been the only way to meet crime, but it should not be according to the enormity of the crime, but in accordance with the amount of moral responsibility possessed by the culprit. Where an irreclaimable and incurable criminal was found treat him as an incurable maniac and lock him up for life, not for punishment, but to protect society and put a stop to the procreation of such animals. The legislation should recognize the fact that poverty is the great objective cause of crime; that, while grades of society must of necessity exist, laws should be enacted to prevent pauperism, the grade from which criminals are drawn.

In the discussion following Drs. Kennedy, Ross, Osler and Bessey took part.

A vote of thanks to Dr. Howard was moved by Dr. REDDY and seconded by Dr. LOVERIN, and carried.

Dr. KENNEDY moved and Dr. RODDICK seconded, that a committee, composed of Drs. Henry Howard, Reddy, Osler, Ross and F. W. Campbell, report to this Society on the question of memorializing the Government to define clearly what is responsibility in insanity. Carried.

Under the head of "Cases in Practice," Dr.

F. W. CAMPBELL stated that he had lately tried quinine in whooping cough, and had found its action very satisfactory.

Dr. OSLER was announced as the reader of the paper at the following meeting.

After a short discussion on the question of members in arrears the meeting adjourned.

OLIVER C. EDWARDS, M.D.,

Secretary.

PYROGALLIC ACID IN HÆMOPTYSIS.

In the *Dublin Medical Journal*, for December last, Dr. A. Vesey speaks highly of this agent in hæmoptysis, metrorrhagia and other internal hemorrhages. He says—

Pyrogallic acid appears to me to have the following advantages: The dose is small; it does not disarrange the stomach in the way that the usual gallic or tannic acid mixtures do; it does not cause vomiting, as iron and ergot mixtures sometimes do; it is easily taken, and has no disagreeable after-taste. It appears to be more rapid and certain than any of the remedies mentioned above, and far surpasses the time-honored acid infusion of roses, or pil. plumbi cum opio. It dissolves readily in water or in spirit. A spirit solution of definite strength affords a convenient and ready method of administration.

CURRENT LITERATURE.

New Books published in January, 1879.

Cure, Law of. T. M. Triplett, 4th ed. 16°, pap. 20c.—*Duncan Bros.*

Guiding Symptoms of our Materia Medica. Vol. I. Constantine Hering, M.D. 8°, 500 pp., \$5; library leath., \$6; half mor., \$7. *F. M. Stoddart & Co., Philadelphia.*

How to be Plump. T. C. Duncan. 4th ed. 16°, flexible, 50c.—*Duncan Bros.*

Loss of Weight, Blood Spitting, and Lung Disease. On. Horace Dobell, M.D. 8°, 274 pp., \$3.25. *Lindsay & Blakiston, Philadelphia.*

Lung Disease. See *Loss of Weight.*

Medical Chemistry, including the Outlines of Organic and Physiological Chemistry. C. Gilbert Wheeler, M.D. 2nd ed., enl. 8°, 424 pp., \$3. *Lindsay & Blakiston, Philadelphia.*

Surgery of the Face. Francis Mason, F.R.C.S. 8° 170 pp. \$2.25. *Lindsay & Blakiston, Philadelphia.*

System of Medicine, A. Vol. V. Ed. by J. Russell Reynolds, M.D. 8°, \$7.50; sh. \$8.50. *J. B. Lippincott & Co., Philadelphia.*

Women, Diseases of. Ludlum. 8°, 670 pp., sh., \$5. *Duncan Bros.*

The Medical and Surgical Diseases of. A. L. Clark, A.M., M.D. Illus. 8°, 410 pp., sh., \$4. *Jansen, McClurg & Co.*

BELLADONNA PLASTERS.

We beg to direct the attention of the profession to advertisement of Messrs. Grosvenor & Richards, manufacturers of Belladonna and other plasters. A physician of considerable experience himself, the senior partner of this firm possesses exceptional qualifications for the business in which he is engaged, a fact fully proved by the extraordinary esteem in which the goods of the firm are held. Dr. Grosvenor was the first to turn to practical account an improvement in compounding Belladonna Plasters by the use of purified rubber as a basis of combination. The extraordinary success of Dr. Grosvenor's method has induced a host of imitations, but in action the difference in favor of "*Emp. Belladonna Grosvenori*" is speedily made clear. By eminent American authority these have been pronounced "superior to any now in use." Arrangements have been completed for their being supplied in Canada through Messrs. Lyman, Sons & Co., of this city. We have no hesitation in recommending the goods of this firm.

LACTOPEPTINE.

This preparation, which has the merit of being considerably cheaper than the best kinds of Pepsin, has been found by actual experiment to possess a decided and uniform solvent power, greater, weight for weight, than Pepsin as usually prescribed. It is a combination of Pepsin, Sugar of Milk, Pancreatine, Ptyalin, and Lactic and Hydrochloric Acids. We have administered Lactopeptine in a number of cases where Pepsin was indicated, and have been fully satisfied with the result.—*N. Y. Medical Journal.*

WYETH'S DIALYSED IRON.

"In this city I have found nine varieties of so-called Dialysed Iron. Some of these were manufactured here, but most of them were made elsewhere. Genuine Dialysed Iron is nearly tasteless. It has the faintest possible saline flavor and a mere suspicion of roughness. Slightly diluted, its taste recalls that of fresh blood. It is not in the least unpleasant, and does not blacken the teeth or tongue. It seldom or never produces any gastric disturbance or headache, and very rarely constipation. It is exceedingly reliable and rapid as a tonic.

"The spurious forms of this drug are without the characteristics of taste and efficacy above enumerated, and chemical analysis readily detects their deficiencies. One of the spurious specimens before alluded to, was little less unpleasant than the Tincture of Muriate of Iron, another was excessively acid, another was decidedly saline, another was exceedingly astringent, another was sweetish, another was bitter, and another was seemingly only colored water; another more nearly approached correctness, but only a single specimen possessed the peculiarities of the true article.

"My attention was first directed to this matter through the failure or misbehavior of the Dialysed Iron in practice. It is but just to say that the good specimen is from Wyeth & Brother, the original manufacturers of this medicine in America."—LENSFORD P. YANDELL, M.D., *Professor of Therapeutics and Clinical Medicine in the University of Louisville.*

Pharmaceutical Department.

A. H. KOLLMYER, M.A., M.D., Editor.

THE CINCHONA BARK COLLECTORS OF SOUTH AMERICA.

BY HENRY R. GRAY.

Quinine is regarded by the medical profession as the best febrifuge yet discovered. The evidence of every traveller in every clime abundantly proves this assertion to be true. Gordon Cumming, Speke, Grant, Baker, Livingstone, Stanley, and a host of other explorers bear testimony to its efficacy in intermittent fevers, while Royle in his *Materia Medica* says that "in some parts of the world it is a necessary of life."

As I merely intend in this paper to give a short sketch of the usual method of collecting the cinchona bark, which produces this valuable alkaloid, and to introduce you to the cinchona bark collectors of South America, the famous Cascarilleros, it will not be necessary to allude to the more modern methods adopted in the Neilgherry Hills in India, for gathering the bark with the least possible damage to the trees.

Without inflicting on the reader all the hackneyed tales connected with the introduction of this drug into Europe, it may be safely said that the Jesuits, who early established missions to the natives of Bolivia and Peru, were the first introducers of it into Spain; so that, if we owe nothing else to the Jesuits, we at least owe them a debt of gratitude for this grand addition to the *Materia Medica* of the world.

Cinchona bark, sometimes called Peruvian bark, is derived from an evergreen tree, named by Linnaeus *cinchona*, a genus expressly established for it. The modern botanist has given the name of *cinchona* to the order, and to the family the name of *Cinchonales*. This family is composed of about thirty-six known species, including one out of every thirty-eight members of the tropical flora of South America. There is in the United States only one representative of the family, the "pinkneya" of the Southern States, whose bark is used as a febrifuge by the negroes; its effects, however, are not well marked.

Let us now bury ourselves in a great forest, the vast trackless woods which cover the valley of the mighty Amazon—a forest where the leaves never fade and the snow never falls; where the settler has scarcely hewed out a single clearing,—a vast primeval forest as big as all Europe, in fact, the largest in the world. There is one part where a straight line might be drawn across it which would measure the enormous length of 2,600 miles, and there is a point in it from which a circle might be described with a diameter of more than 1000 miles. The whole area included within this vast circumference is covered with dense unbroken primeval forest. Many strange forms of life, both vegetable

and animal, here find a congenial home: the cow tree with its abundant fountain of rich milk; the seringa with its well known and valuable elastic gum; the curious volader with its winged seeds; the wild indigo, vanilla, annatto, paullinia sorbilis, erythroxyton coca, and, beyond all, in importance to mankind, the cinchona with its fever-killing bark. On the creeks and rivers we shall see tall flags like Saracen spears, the golden arundinaria, the bamboo and the cana brava. On almost every pool we shall see the gorgeous Victoria Regia with its massive wax-like flowers and huge circular bronze-green leaves. The rank damp earth is alive with insects and the trees with gaudy colored birds. To read the descriptions of recent travellers in this almost unknown region is to excite a desire to go there and explore.

Take an atlas and turn to the map of South America, trace an imaginary line from the headwaters of the River Purus in Bolivia, on the south, along the slopes of the Andes as far north as St. Martha and Merida, fronting on the Caribbean Sea and you have at once the cinchona region in your mind's eye, remembering of course that the cinchona is never found at a lower altitude on these slopes than 2000 feet (some authors say 3000 feet) above sea level, and never higher than 9000 feet. The mean temperature of this region is 62° with much moisture. Recent explorers have discovered several species of this tree on the western slope of Chimborazo and in the river valleys emptying into the Gulf of Guayaquil. A species also grows on the Quindia range of the Andes in Grenada, and further discoveries are continually being made and new barks appearing on the market.

We will now direct our attention to the cascarilleros. The bark of the cinchona tree is called by the natives cascarilla, this being the Spanish name for bark, and the bark collector is called a cascarillero. He is either a New Granadian, Ecuadorian, Peruvian or Bolivian, according to the country in which he collects. He is usually a white man, though often with Indian blood in his veins; he has generally in his employ several pure bred Indians who do the hard work of his calling. Sometimes the Indians become cascarilleros on their own account, but they are mostly employed by a master cascarillero, who takes his ease in a town hundreds of miles from where the lonely Indians are gathering the bark. One man in each gang is a cateador or climber. His business is to climb to the top of the tallest trees, and from thence take a survey of the surrounding forest. He can distinguish the cinchona from all other trees, even at long distances, just as an Ottawa lumberman can tell a pine from a poplar, and this too as far as he can see.

He knows the young trees by their dark green glistening leaves, and the old ones by the peculiar color of their veins and mid-ribs. He recognizes the cinchonas too by their pinkish-white flowers, which contrast strikingly with the deep shade of the surrounding foliage. He then marks in his mind all he can see, whether single trees or clumps,

which are designated in Spanish *manchas*, or spots.

It must be remembered that cinchonas are not of gregarious habit. They stand singly or in isolated groves or clumps, and indeed this may be said of all the trees indigenous to the Amazon valley with the exception of the palm; consequently the cateador or climber has to have great experience at his task, and to search sharply for the trees he intends the *cascarilleros* to decorticate.

As soon as he has fixed the bearing of a *mancha* or clump in his memory he descends and enters upon a different phase of his duty, which is to conduct the *cascarilleros* through the tangled mazes of the thick bush to the spot he has discovered, and this he does with the unerring certainty of a western trapper or a northern lumberman. On arriving at a fair-sized grove the real work of the *cascarillero* begins. A shanty is first erected out of the abundant materials at hand, palm trunks for supports, *cava brava* for walls, and the broad leaves of the wild plantain for the roof. The men then set to work at the cinchonas. Down come the trees under the strokes of an axe, usually a bright-edged one of North America manufacture, for, be it known, Yankee axes, Brandreth's pills and Florida water can be bought even on the Amazon. The trees being felled are cut into sections. Circular incisions round the logs are then made with a sharp knife, at the distance of several feet from each other, and finally longitudinal cuts intersecting all the others. The logs are then left a few days exposed to the fervent heat of the tropical sun, after which the bark readily peels off, to be further desiccated, either by gradual drying under a temporary shelter, or by direct exposure to the rays of the sun, according to the age and variety of the bark and its thickness. It is next formed into convenient bundles, tied up, packed in skins, and carried on the shoulders of the *cascarillero* to the nearest point whence it can be transferred to the back of a mule, to be forwarded in charge of *arrieros* or mule drivers to some important frontier town, where it changes ownership, and is afterwards transported in ships to the commerce of the outside world.

(To be Continued.)

THYMOL AS AN ANTISEPTIC.—Dr. L. Lewin has found that the addition of one-tenth of one per cent. of thymol is capable of arresting saccharine and lactic fermentation, which would place this substance even higher in rank than carbolic or salicylic acids. It suppresses every kind of fermentation or putrefaction. Dr. Lewin recommends it chiefly for the antiseptic treatment of wounds, also as a remedy for stomachic fermentation and dilatation, and in diseases depending upon the action of living organic germs, such as diphtheria. It also arrests excessive secretion by mucous membranes. For internal administration it may be given in solution in water, 0.5 gm. of acid in 1,000, afterwards of double the strength, 1.0 gm. in 1,000, two, three, or more tablespoonfuls a day. For external use the saturated aqueous solution (1 : 1,000) is generally sufficient; but for

washing out offensive wounds it should be employed in a stronger alcoholic solution.—*Virchow's Archiv.*

THYMATES AND OTHER SALTS OF THYMOL.—We have already drawn attention to the therapeutical uses of thymol, by some called thymic acid. Some important experiments have been made by Sig. Cozzolino, who has published a good paper in the *Giorn. Internaz delle Scienze Med.*, in which he speaks of sulpho-thymate of quinine as worthy to rank beside the sulpho-carbolate or the salicylate of this alkaloid. It is white, very slightly soluble in water, though freely in acidulated water, in ether, and in alcohol. In the same paper Sig. Cozzolino calls attention to thymate of soda, which is so pleasant in flavor that children take it most readily. It is a mild febrifuge, but of most value as a carminative and antiseptic. Dose: 50 centigrammes for infants; 3 or 4 grammes for adults. As a mouth-wash it is useful in aphtha and muguet, especially in the cachectic form, associated with phthisis, typhus, syphilis, &c. As an antiseptic injection, it may be employed in vaginal, uterine, and vesical diseases.

ON THE EMPLOYMENT OF THE OXALATE OF CERIUM IN PREGNANT SICKNESS.—(F. A. Image.) Says that the officinal dose of one to two grains is utterly useless, but that doses of ten grains will, in most cases, completely check the nausea of pregnancy. He also uses it to relieve nausea caused by uterine irritation from other causes, in combination with potassium bromide.—*The Practitioner.*

KOUMISS may be made as follows: Take two pints of new milk, one gill of either clabber or fresh buttermilk, and three or four lumps of white sugar. Mix together, and dissolve the sugar in the liquid. Put it in a warm place to stand for ten hours, by which time it will be thick; pour it from one jug to another until it is quite smooth. Bottle it in soda water bottles, and allow it to remain in a warm place for thirty-six hours—twenty-four in summer. Use the best velvet corks, tied down with cord, to close the bottles. Shake the bottle well before it is opened. It will have whey at the bottom when it is fit for use. It should be made every day; its fermentation is the test of its excellence. The above process is that recommended by Dr. Townsend, which we reprint from a former issue of *The Druggist's Circular*.

SEA-WATER SOAP.—The new salt-water soap patented in Germany is simply common soap containing a certain quantity of phosphate of sodium. This addition enables it to form a good lather with almost any natural water. The oldest form of marine soap was made with cocoanut oil, which needs no addition to make it useful at sea.

NITRIC ACID FOR HOARSENESS.—Dr. W. Handell Griffiths says that a few drops of nitric acid in a glass of sweetened water, a couple of times a day, will be found an excellent remedy for the hoarseness of singers. One of the largest fees ever received by him—so he says—was for this prescription.

OSTRICH PEPSINE.—M. Alfred Ebelot, in an article in the *Revue des Deux Mondes*, on the means employed in the Argentine Republic to protect settlers in the Pampas from the Indians, gives some curious statements with regard to ostrich pepsine. The soldiers never could resist an ostrich hunt when they saw a male ostrich, as is the custom of that bird, taking out its young brood for food and exercise. The parent bird generally escaped, leaving its young in the hands of its enemies. When other food was scarce they ate the young ostriches. Some portions of the flesh of these birds when young and fat are reckoned dainty by the Indians. Whilst eating the ostrich the Indians always carefully put aside the stomach in order to collect the pepsine which it contains. "The stomach of the ostrich," says M. Ebelot, "is celebrated for its incredible powers of digestion. The abundance of pepsine, to which it owes this faculty, has created among Indians a curious commercial fraud. They dry and sell it literally for its weight in gold. It is used for the purpose of restoring worn-out stomachs." A London medical journal says: "We think 'ostrich pepsine' such a splendid name for business purposes that we wonder it has never been adopted. The pepsine of the pig would have no chance in competition with that of the ostrich, and no great city dinner or regimental mess would be complete without a supply of this infallible specific, 'pour refaire les estomacs délabrés.'"

NEW METHOD OF COVERING THE TASTE OF COD-LIVER OIL.—Dr. Ponteres mixes a tablespoonful of cod-liver oil with the yolk of an egg, and when they are thoroughly combined, adds to them a few drops spirits of mint and half a glass of sugar water. In this way he obtains a sort of mulled egg, which differs very little from ordinary mulled egg, and which presents neither the taste nor odor characteristic of cod-liver oil. It can consequently be taken without repugnance by the most fastidious patients.—*Union Medicale. N. Y. Record.*

DEODORIZING PETROLEUM.—*To The Druggist's Circular:* Can you favor me with a formula for deodorizing kerosene or coal oil? Please answer through your journal, and oblige yours, etc., H. J. B.—*London, England.*

[ANSWER.—A process was published in *The Druggist's Circular* of March, 1877; it appears simple and economical enough, but we cannot say how it succeeds in practice. It is as follows:

Take of alcohol of 93°.....	1 pound.
Sulphuric acid.....	2 ounces.
Nitric acid.....	2 "
Petroleum.....	20 pounds.

The acids are first introduced separately into the petroleum by means of a glass funnel long enough to reach near the bottom of the vessel; and the alcohol is poured on the surface of the liquid, whence it

slowly descends to the lower stratum, and comes in contact with the acids. At that time heat is developed, effervescence takes place all through the mass, and a small quantity of nitric ether is formed. The products of the reaction have a very pleasant odor, and the petroleum acquires a similar smell, becoming at the same time slightly yellow. The operation lasts about one hour, after which the mixture is to be washed with a small quantity of water, and allowed to settle for eight or ten hours. The upper layer is deodorized petroleum. The remaining liquid can be used for heavy oils by simple agitation, followed by washing with milk of lime to remove the excess of acid.

Another process is to mix chloride of lime with the petroleum, in the proportion of three ounces for each gallon of the liquid to be purified. It is then introduced into a cask, some muriatic acid is added, and the mixture is well agitated, so as to bring the whole of the liquid into intimate contact with the chlorine gas. Finally, the petroleum is passed into another vessel containing slaked lime, which absorbs the free chlorine, and leaves the oil sufficiently deodorized and purified.

CARBOLIC ACID ODOR DISGUISED.—In this preparation the disagreeable odor of the acid is simply masked by the use of oil of lemon, which has no prejudicial action upon its antiseptic properties. The recipe is published in the *Moniteur Scientifique*, of Paris, and is as follows:

R

Carbolic acid.....	3 i;
Oil lemon.....	3 iiii;
Alcohol at 36°.....	3 xiiss;

The mixture is quite perfect, and appears to be very stable. The odor of the oil is alone appreciable.—*N. Y. Brief.*

An unfortunate French pharmacist has been fined more than 600 francs for selling some *eau blanche*, or acetate of lead lotion. It was applied externally to a man, who died some days after. The doctors reported that the death was *not* due to the lotion, but the widow brought an action against the pharmacist, which led to the heavy fine just mentioned.

There has been started a rumour that a long-continued drought has injured the chances of the next opium crop. Another suggestion of the enemy, and perhaps a more probable one, is that the Turkish Government is likely to fix an export duty on the drug.—*Chemist and Druggist.*

ATROPINE AND DATURINE.—The *Boston Journal of Chemistry* for August, 1878, says that in 1850 A. Von Planta asserted that atropine and daturine were identical. This assertion led to mischief, for the manufacture of atropia was soon begun from the leaves and seeds of the stramonium. Hence the uncertainty of certain specimens of atropine, for daturine has been found to be less active than atropine, and more uncertain in its action.

A FATAL "LAPSUS CALAMI."—A physician of Sangerhausen, in Thuringia, having occasion to prescribe for sleeplessness in an hysterical patient, wrote the following prescription:—"Chlorhydr. 15.0, tinct. opii 15, aquæ 60.0; M. A. third part to be administered in the evening as an enema." The patient died, and a prosecution was instituted against the physician and the apothecary who dispensed his prescription. A *lapsus calami* had been committed on the part of the former, who omitted to put "gtt." after the "tinct. opii 15." The prescription was made up by a young unqualified pupil, who read the 15 to signify *grammes*, as the 15 of the chloral and the 60 of the water obviously did. A properly educated apothecary would have taken the prescription to the physician before dispensing it. The Court sentenced the physician to one month's imprisonment, the apothecary to two months', and his pupil to three months'.—(*Chemist and Druggist*.)

IMITATION EBONY.—To turn oak black, so as to cause it to resemble ebony, the wood is immersed for forty-eight hours in a hot saturated solution of alum, and then brushed over several times with a logwood decoction prepared as follows: Boil one part of best logwood with ten parts of water, filter through linen, and evaporate at a gentle heat until the volume is reduced one half. To every quarter of this add from ten to fifteen drops of a saturated solution of indigo, completely neutral. After applying this dye to the wood, rub the latter with a saturated and filtered solution of verdigris in hot concentrated acetic acid, and repeat the operation until a black of the desired intensity is obtained. Oak thus stained is said to be as close as well as handsome imitation of ebony.—*Am. Cabinetmaker*.

SHAMOY LEATHER.—Shamoy skins are, every one knows, largely used for many purposes—for inside linings of gloves, etc., and for cleaning purposes in many departments. It is not derived from the skin of the chamois, but from the flesh side of the sheepskin which have been spilt. The skins, after having been passed in the ordinary way through the earlier processes of washing, etc., are soaked, first in lime-water, and next in a mixture of bran and water, or in a weak solution of sulphuric acid, after which they are beaten in a mill till no moisture remains in them. Fish oil is then poured over the skins which are again beaten till they are thoroughly impregnated with it. This is done over and over again until the skins can receive no more oil, and then they are hung for a short time in a room heated up to certain temperature. They are then carefully washed in a solution of potash, which removes any oil that may still remain about the leather; and thus we have the shamoy skin in daily use.—*Druggists' Circular*.

GINGER.—The cultivation of ginger has been commenced in California with good prospects of success.

A LEECH BAROMETER.—The following is a simple way of making a "leech barometer." Take an

eighth ounce phial, and put in it three gills of water and a healthy leech, changing the water in summer once a week, and in winter once a fortnight. If the weather is to be fine the leech lies motionless at the bottom of the glass, and coiled together in a spiral form; if rain may be expected, it will creep up to the top of its lodgings, and remain there until the weather is settled; if we are to have wind it will move through its habitation with amazing swiftness, and seldom goes to rest until a high wind begins; if a remarkable storm of thunder and rain is to succeed, the leech will remain for some days before almost continually out of water, and show great uneasiness in violent throes and convulsive-like movements. In frost, as in clear summer-like weather, the leech lies constantly at the bottom; and in snow, as in rainy weather, it moves to the very mouth of the phial. The top should be covered with a piece of muslin.—EDWIN S. CLOUTMAN in *Scientific American*.

"The last dose from a bottle containing a mixture of strychnia and bromide of potassium," says the *Detroit Medical Journal*, "poisoned the patient. The bromide had precipitated the strychnia."—*Boston Med. and Surg. Jour.*

EUCALYPTUS OIL.—Mr. M. H. Llewellyn, writing to the *Melburn Medical Record*, says that he has found eucalyptus oil very useful in repelling the attacks of flies. It may be partially saponified by heating on the water-bath an ounce of oil with two or three drachms of carbonate of soda. This quantity will then dissolve in a quart of water. It may also be dissolved in rectified spirits, and used as a face lotion or as spray in the sick room. As long as the scent remains no Australian fly will approach.—*London Medical Record*.

THE ALBO-CARBON LIGHT—Is a new candidate for public favor, and lays claim to superiority over any light of modern introduction. The material used is carboline, a very inexpensive solid substance produced from gas residuals, which gives off a vapor of almost pure carbon, and this being combined with the light of ordinary gas, increases the illuminating power of the gas some 200 per cent. The new light is very brilliant, and has no influence on colors. For the interior illumination of large public buildings, warehouses, &c., and for shop windows the Albo-Carbon Light is especially suitable. Where sun or ceiling lights are already in use this process may be applied to them at a comparatively small outlay, by a very slight alteration of existing arrangements, dispensing at once with half the burners. For factories, foundries, warehouses, printing offices, workshops, &c., special fixtures have been designed of a less expensive character. The amount required for each thousand cubic feet consumed is 5 lbs., costing 1s.; or $\frac{1}{2}$ lb., costing 1½d., is sufficient for one burner for 40 hours (practically a week's supply). The offices and works of the company are at 132 Horseferry Road, Westminster, S. W.—(*Chemist and Druggist*).