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THE CANADIAN TRIPLICATE Journal of Medical Science

VOL. II.

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CONTENTS.

	Page		Page
MEDICINE:—		CASES IN PRACTICE:	
The Muscular Arterioles: Their Structure and Function in Health and in Certain Morbid States.—By George Johnson, M.D., F.R.S	291	A Case of Vesical Calculus.—By J. E. Graham, M.D.	310
Starvation in the Treatment of Acute Articular Rheumatism.—By Casey A. Wood, C.M., M.D.	294	Wound of the Femoral Artery by a Pistol Bullet.—By R. Zimmerman, M.D.	311
Belladonna against Scarlet Fever	296	Large Scrotal Hernia in a Young Child; Operation for Radical Cure by Wood's Method	311
A Case in Proof of the Non-Identity of Variola and Vari-cella.—By Seymour J. Sharkey	297	Acute Abscess of the Tongue (Unilateral); Recovery; Remarks	312
Dialysed Iron	298	ORIGINAL COMMUNICATIONS:	
SURGERY:—		Modern Otology.—By R. A. Reeve, B.A., M.D.	313
Treatment of Retention of Urine.—By J. M. Little, M.D.	298	FORMULARIES:	
Clinical Lecture on some Cases of Diseased Knee-Joint.—By S. Messenger Bradley, F.R.C.S.	301	Tincture of Phosphorus—Russia Drops—Sedative Clyster—Antirheumatic Draught—Ointment for Eczema ..	317
Piece of Nut Shell in Air Passage over Thirteen Years—Recovery.—By J. W. Luse, M.D.	304	TRANSLATIONS:	
Semi-Annual Report in Practical Dermatology.—By H. G. Piffard, M.D.	304	The Danger of Active Remedies in Cases of Renal Lesion—On the Absorption of Medicine Through the Mucous Membrane of the Vagina—Poisoning by Salicylic Acid—Treat. of Chronic Psoriasis—Indications for Opium and for Digitalis in Asystolism in Various Diseases of the Heart—Examination of Urine for Bile—Treatment of Pruritus Vulvæ—Antiasthmatical Cigarettes	318
The Automatic Method of Reducing Luxation of the Hip	305	EDITORIALS	302
MIDWIFERY:—		BOOK NOTICES	323
Experience in Puerperal Eclampsia.—By A. J. Jessup ..	306		
A Young Mother	309		
Obesity and Amenorrhœa of Young Women—Treatment by Milk Diet	309		

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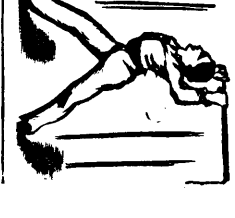
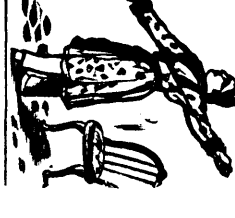
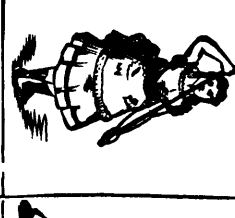
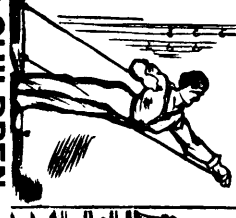
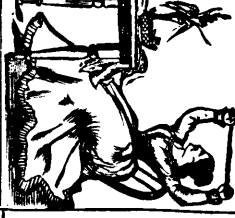
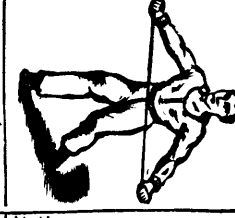
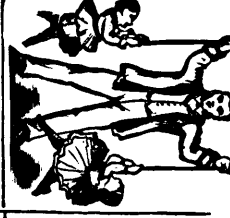
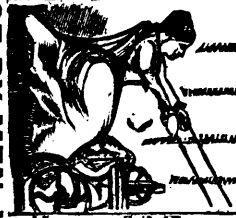
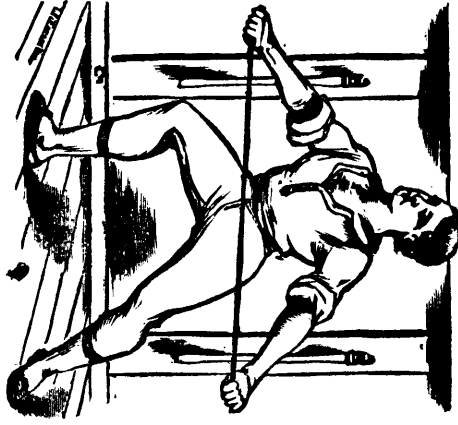
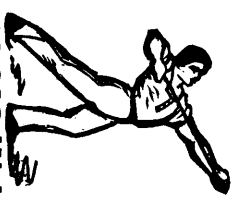
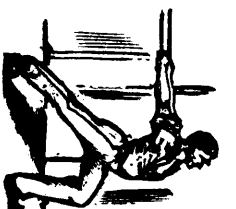
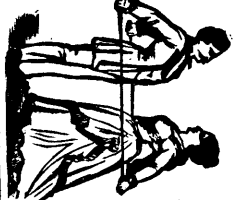
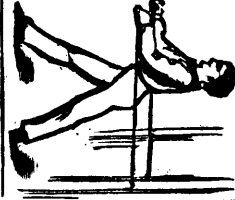
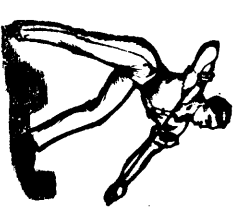
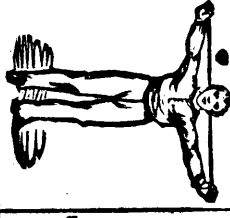
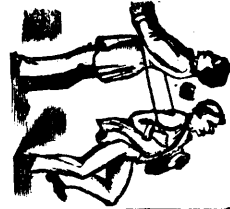
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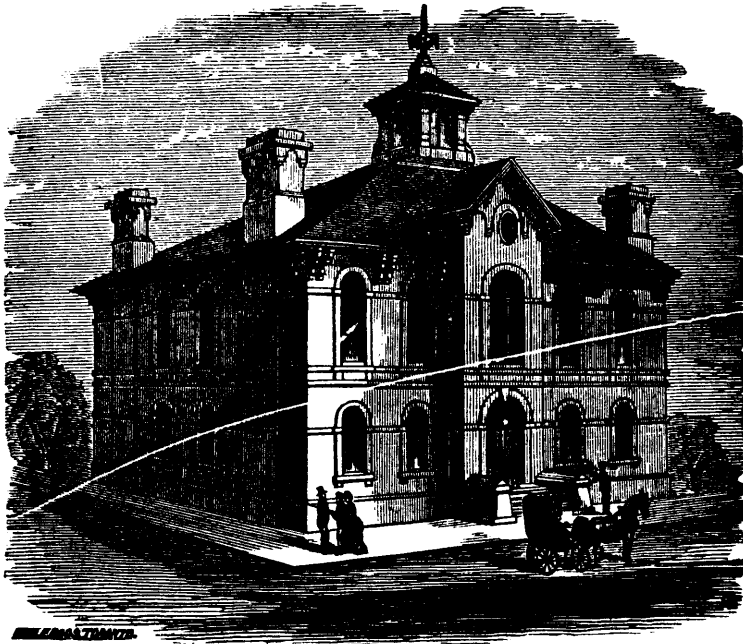


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TORONTO. SEPTEMBER, 1877.

Selections: Medicine.

THE MUSCULAR ARTERIOLES: THEIR
STRUCTURE AND FUNCTION IN
HEALTH AND IN CERTAIN MORBID
STATES.

BY GEORGE JOHNSON, M.D., F.R.S.

LECTURE III.—*Concluded.*

Time would not permit, even if it were desirable, to enter into the details of treatment; but I am anxious to direct attention to one or two points of practice. It is a well-known fact that the inhalation of chloroform or ether vapour invariably puts a stop to uræmic convulsions, and often wards off an attack after premonitory symptoms, such as convulsive twitchings of certain muscles, have occurred. It has sometimes been supposed that the anæsthetic acts by relaxing the cerebral arteries; but an observation of Kussmaul and Tenner points to a different explanation. These experimenters found that, if animals are etherised, no convulsions occur when they are bled to death or when their intracranial circulation is arrested by ligatures. It appears, therefore, that the anæsthetic vapours prevent or stop convulsions by lessening the reflex excitability of the nervous centre.

The undoubted influence of repeated full doses of bromide of potassium, in warding off uræmic convulsions, is also probably to be explained by its soothing sedative influence on the nervous centres. The bromide is a very useful remedy for the painful muscular cramps which are of common occurrence in the advanced stages of all forms of renal degenera-

tion. These cramps, which are especially frequent and severe in the lower extremities and during the night, are no doubt to be classed with the results of uræmic poisoning, and in not a few cases they are the precursors of more formidable nervous disorder. They may, in some cases, be entirely prevented by a draught containing twenty grains of bromide of potassium, with five grains of carbonate of ammonia, at bedtime.

No doubt, some of the many nervous disorders that result from uræmic poisoning are due to the noxious influence of the morbidly altered blood upon the nervous tissue, while others are more probably explained by sudden partial interruption of the blood-supply to certain parts of the nervous system. This statement may be illustrated by a reference to the two forms of impaired vision, which are very frequently associated with advanced renal degeneration. In one class of cases, dimness of sight comes on more or less gradually, affecting one or both eyes, and is permanent. This form of impaired vision is found to be associated with peculiar structural changes in the retina, results of the so-called *albuminuric retinitis*. In the other class of cases, the impairment of vision may be so sudden in its onset that, in a few minutes or even seconds, there is complete blindness, which usually passes away as suddenly as it came. These attacks of sudden and transient blindness may recur again and again. That they are closely allied to epileptiform attacks, is shown by the fact that they are sometimes immediately followed by general convulsions. The most probable explanation of this sudden transient form of amaurosis is that which attributes it to sudden anæmia of

the retina, or of the central origin of the optic nerves, the result of arterial contraction, excited by the morbid quality of the blood. It is, in fact, a form of circumscribed partial epilepsy, "epilepsy of the retina," as it is sometimes designated.

There are various forms of nervous disorder of uræmic origin which probably admit of a similar explanation: sudden and transient impairment of motor power or irregular spasmodic movements limited to a particular set of muscles; various disordered sensations in limited portions of the skin; sudden perversions of taste, or smell, or sight, or hearing, sudden impairment of speech, vertigo, confusion of thought, temporary mental excitement and delirium. One or more of these symptoms may occur singly or variously associated in different cases, the onset and the departure being often equally sudden. In explanation of these phenomena, Dr. Hughlings Jackson has, with much ingenuity, suggested that they may result from a sudden temporary interruption of the blood-current through one or more branches of the cerebral arteries by spasm of their muscular wall; so that the brain tissue within a circumscribed "arterial region," having its nutritive supply arrested or limited, would suffer a suspension or impairment of its proper functions. Our increasing experience of the various forms of nervous disorder which may result from so purely mechanical a cause as embolism of cerebral vessels lends support to this theory. An arrest of the circulation through a portion of the brain involves immediate suspension of function in that part, with perhaps a disorderly action in subordinate or correlated parts. Thus, amongst other symptoms of nervous disorder, maniacal delirium, with mental illusions, and acute chorea have been found associated with, and probably have been directly caused by, mechanical plugging of minute cerebral vessels; the plugging being a result of embolic particles of fibrin detached from the so-called warty vegetations on a damaged cardiac valve. In like manner, sudden and complete blindness may result from embolism of the arteria centralis retinae, partial and patchy blindness from embolism in one of its branches. The results of the mechanical plugging of vessels are thus seen to bear so strong a re-

semblance to those which are due to uræmic poisoning as to afford much support to the theory of arterial contraction as the immediate cause of some at least of the characteristic symptoms.

There is another class of cases in which the theory of obstructed circulation being the result of arterial spasm receives confirmation from the fact that very similar phenomena result from a demonstrable mechanical block of the same system of vessels. I refer now to the striking resemblance between the symptoms of cholera-collapse and the results of embolism or thrombosis in the pulmonary artery.

It will be known to most of those whom I have the honour to address, that for a number of years I have maintained that the impeded circulation through the lungs, which obviously exists during the collapse stage of cholera, is explicable only on the hypothesis of abnormally energetic contraction of the pulmonary arterioles. And I now desire to direct attention to the very striking resemblance between the symptoms of choleraic collapse and those which have been observed in some cases of obstruction of the pulmonary artery by fibrinous clots.

I have reference to several cases of pulmonary embolism in which the symptoms bore a more or less striking resemblance to those of the collapse of cholera; but the most complete record of such a case is one which was published by Dr. Alfred Carpenter (*Lancet*, September 23rd, 1871). In that case, as Dr. Carpenter remarks, "the only symptoms wanting to make it apparently one of cholera were alvine discharges and cramp of the limbs." The symptoms actually noted, and which in the choleraic cases have very commonly been supposed to result from the dehydration of the blood by the intestinal discharges, were the following: blueness of the surface; icy coldness of the uncovered parts of the body; cold clammy perspiration; coldness of the breath; sinking of the eyes; feebleness of the voice; a feeble thready pulse; with quick breathing, excessive thirst, and almost complete suppression of urine, two ounces only of urine having been passed one day, and on another day less than two ounces. After death, the right side of the heart was found fully distended with dark-coloured blood,

while the left side was empty. The pulmonary artery at its origin was partially obstructed by a clot of fibrinous matter, which sent branches into the ramifications of the artery for several inches; these did not block up the passages entirely, but floated like semi-cylinders in the current. It is obvious that, if the trunk of the artery and its main branches had been completely obstructed, death must have been as instantaneous as in the case of cardiac thrombosis which I mentioned in the early part of this lecture; and it can scarcely be denied that the symptoms which resulted from this partial obstruction of the arterial trunk bear a striking resemblance to those of choleraic collapse. Such a case, therefore, may fairly be cited as evidence in support of the theory of arterial contraction being the main cause of the impeded pulmonary circulation during the collapse stage of cholera.

Again, it is not without interest to remark upon the very striking resemblance between the symptoms of choleraic collapse and a severe fit of spasmodic asthma. For the purpose of illustrating this, I will take Dr. Hyde Salter's graphic description of the asthmatic paroxysm. He says: "If the bronchial spasm is protracted and intense, the heat of the body falls; the oxygenation of the blood is so imperfectly performed, from the sparing supply of air, that it is inadequate to the maintenance of the normal temperature; the extremities especially get cold and blue and shrink. I have known the whole body deathly cold and resist all effects to warm it for several hours. But, while the temperature is thus depressed, the perspiration produced by the violent respiratory efforts may be profuse, so that the sufferer is at the same time cold and sweating. It is this union of coldness and sweat, combined with the duskiess and pallor of the skin, that gives to the asthmatic so much the appearance of a dying man. The pulse during severe asthma is always small, and small in proportion to the intensity of the dyspnoea; it is so feeble sometimes that it can hardly be felt." I scarcely need insist upon the many points of resemblance between these symptoms and those of cholera. What, then, is there in common between these two forms of collapse? Obviously not a drain of fluid from the blood,

which was at one time looked upon almost universally as the main cause of choleraic collapse; not, I repeat, a drain of fluid from the blood, but a partial arrest of the pulmonary circulation. In both classes of cases, there is evidence of an impeded pulmonary circulation, the result of spasm of the muscular arterioles. In cholera, the arterial contraction is a primary result of the irritant action of the poisoned blood upon the vessels and the vaso-motor nerves; while in asthma the arterial spasm is a secondary result of a partial apnoea occasioned by primary spasm of the bronchi. Using the words asphyxia and apnoea in their strictly literal sense to express the pulselessness and breathlessness, we may say that in cholera-collapse there is a primary asphyxia, and a secondary apnoea consequent on the blood-stasis in the arterioles before it can reach the capillaries to be aerated. On the other hand, in asthma there is a primary apnoea caused by bronchial spasm which cuts off the air from the pulmonary vesicles, and a secondary asphyxia the result of arterial contraction.

In conclusion, sir, I venture to express a hope that the brief survey we have taken of some of the pathological phenomena with which the muscular arterioles and the vaso-motor nervous system are intimately and obviously concerned has not been without interest even for this learned audience, to whom I desire to offer my cordial thanks for the attentive hearing with which they have favoured me.—*Brit. Med. Journal.*

ETHER AND AMMONIA SUBCUTANEOUSLY.—M. Verneuil injects ether as a powerful stimulant. In a case on which an operation had caused much hæmorrhage, and when the next morning the temperature had fallen to 92.3 in spite of brandy and other stimulants, ten drops of sulphuric ether were injected and repeated in half an hour. From this time there was a rally. M. Verneuil thinks ether or ammonia subcutaneously far preferable to transfusion, which latter operation he regards as dangerous notwithstanding its recent vogue. He would recommend this plan even in *post-partum* hæmorrhage.—*The Doctor.*

STARVATION IN THE TREATMENT OF ACUTE ARTICULAR RHEUMATISM.

BY CASEY A. WOOD, C.M., M.D., OTTAWA.

Since the advent of those two most excellent remedies in the treatment of rheumatism, salicylic acid and salicine, and the undoubtedly good results that have followed their use, it is not a matter of surprise that one should feel inclined to regard any new remedy as undeserving of notice and unworthy of a trial; but there are cases in which these medicines have not realized the expectations of the physician, and where he is obliged to seek some other plan of treatment.

We will suppose for instance that after the patient has faithfully taken the requisite number of grains of salicylic acid in the proper doses and at proper intervals, and the disease has not yielded to its influence as was confidently anticipated; that perhaps the fever and acid perspiration are not sensibly diminished, and the aching joints are still as painful as ever; or it may be that the irritable stomach refuses to retain the nauseating doses poured into it and vomiting or diarrhoea is set up—the question must then arise in the physician's mind what is next to be done? Shall he go back to the old remedies and try alkalies, colchicum and opium, calomel and opium, or, devoid of faith in everything but his cherished "willow," shall he simply do nothing at all, and, following the treatment so very appropriately styled *expectant*, "wait for something to turn up."

It is for the benefit of such cases especially that this article has been prepared, and, while the flood of testimony in favour of the products of the willow allows me to claim for "starvation" only a place second to them in importance, yet it will be found in most cases of rheumatism to act quite as quickly and efficaciously as the former remedies. Without further preface I shall proceed to give a short history of a number of cases of acute articular rheumatism, in which total exemption from food of any kind formed the chief element in the treatment. These observations have extended over a number of years, and they are all selected for their typical nature, being the common form of acute rheumatism usually

observed in the otherwise healthy adult. Special attention is drawn to the almost instantaneous action of starvation in almost every instance.

Case No. 1.—A. S., a retired gentleman of English descent, æt. 28, of full, plethoric habit and a *bon vivant*. Had a very severe attack of acute articular rheumatism. Treated by a physician with calomel and Dover's powder, and under this treatment became rapidly worse, the pain in his joints being so excruciating that he cried out with pain when any one approached too near him. On the fourth day changed both his doctor and the treatment. He was then ordered an antimonial emetic and to take ten drops of the following every three hours *while the pain continued to be severe*: Tinct. Opii f ʒij, Tr. Colchici f ʒ ss. Was also given, every three hours, a teaspoonful of the following mixture: R Potassæ Acet ʒ ss Aquæ ʒ viii. Ordered to take no food whatever for seven days, after which he was allowed an oyster three times a day. On the eighth day he walked down stairs without assistance and entirely free from pain. The amount of food was now gradually increased until it reached the usual quantity.

He recovered perfectly from this attack and had good health for three years afterwards.

Case No. 2.—Pat K., pedler, æt. 34, of spare habit and very active, being much exposed to the weather. Had two previous attacks, treatment each time having lasted for twelve weeks. Fully determined this time not to have a physician nor to take anything in the shape of medicine. Was persuaded to starve himself for a week, at the end of which he was agreeably surprised to find himself totally free from pain. Took one tablespoonful of milk three times a day to begin with, and gradually increased this and his supply of food until a full meal was taken. It is known as a fact that he had no return of his trouble for at least three years after undergoing this treatment. This man (much to the disgust of the medical men in the neighbourhood) has cured several people in the country places where he plies his trade, by the same simple plan.

Case No. 3.—M. F., member of Parliament, a French gentleman, aged 58, short, stout, and

plethoric. Had a very foul tongue, high fever and sweats, and was perfectly helpless from the pain and swelling in his joints. An emetic being plainly indicated he was ordered to take one, but would not consent to do so as he said he was sure it would prostrate him too much, but had no objection to a cathartic. The difficulty was got over by administering three *grains of tartar emetic in a black draught*. Violent emesis, of course, ensued, which was blamed on his irritable stomach. Although very much prostrated by this powerful dose, he was much relieved, the fever being reduced and his pain lessened. He was then given the same mixture as No. 1, and was completely starved for three days. On the fourth day was allowed an oyster and a poached egg, and on the fifth day half a pint of milk during the day and three oysters three times a day. On the sixth day he was almost well and allowed full diet. Has had no relapse.

Case No. 4.—E. R., æt. 50, tailor, thin and of nervous temperament. Two days before seeing him had got cold and wet whilst at work in a cellar. Gave a mild emetic, which relieved him.

It was found necessary to starve him for three days only. On the fourth day he was allowed two oysters and a little milk. Went to work on the sixth day and has had no relapse. His general health has improved since his recovery from the attack.

Case No. 5.—E. B., aged 60, a stout but active Englishman. This was his first seizure, it being of a very violent and typical nature. Swelling and acute pain in his knees and ankles, with high fever, foul tongue and profuse acid sweats: Gave him an emetic, but purposely omitted the opium and colchicum and the potash mixture, partly for the purpose of trying starvation pure and simple and partly because his pain was so soon relieved by the emetic and abstinence from food. Fasted four days and on the sixth day went to work as usual. Has had no relapse, and his health has been very good since.

I have notes on twelve more such cases in which the history of the patient, the duration of the disease and the immediate effect of treatment are very similar to most of those related above, and, were it necessary, I could give at

least thirty more instances where this plan of treatment has proved equally successful, but for the purposes of this article I do not think it is required, as I merely wish to give an outline of the course usually adopted in ordinary cases of the acute form. I do not claim that in every instance this treatment will produce a certain cure, but so thoroughly am I convinced of its efficacy that I would not change it for the salicylic acid treatment, having had some experience of this drug, which I have tried in several cases, only to return to the old plan of starvation. I have seen its good effects in so many instances; in fact, relief has so invariably followed its use that I can almost positively promise a patient who consults me that he will be well again without fail within a week or, at furthest, two weeks after beginning treatment. I ask, can the supporters of any other treatment say more than that?

It might be objected that, in several of the cases reported, colchicum and opium with an alkaline remedy (acetate of potash) were given, that the treatment is only an old one slightly modified, and that the results obtained are directly traceable to these latter remedies and not to "starvation" at all. To this the answer is easy. The opium and colchicum are given merely for the temporary relief of the pain in the joints, and they are discontinued as soon as they have accomplished their object. The potash undoubtedly facilitates the patient's recovery, but all three are given as adjuncts only, for in cases 2 and 5 no medicine was given at all, and yet both patients made a remarkably quick recovery. Again, how many cases of acute rheumatism, even under the most favourable circumstances, recover in from six to ten days when treated by alkalies or colchicum and opium? It may also be objected that starvation can seldom be tried on the debilitated, the very young, or the very old. This objection is a valid one, but it fortunately happens that the disease is rarely seen in those under ten or over sixty. Total abstinence from food does not, as one might at first imagine, reduce patients suffering from rheumatism very much, nor do they, as a rule, object to it. I remember one case in particular where a female patient having been relieved in a very

few days by this plan, thought there could be no harm in having something substantial to eat notwithstanding her physician's positive orders to the contrary. A good meal of beefsteak, vegetables, and ale was soon prepared, and as quickly disposed of; but I shall never forget the expression of sincere repentance that passed over her pain-stricken countenance as she promised her doctor next day that she would not transgress again, and offered to do without food for an indefinite period, if necessary, rather than suffer such another exacerbation as her indiscretion had brought upon her.

Upon the *modus operandi* of starvation in this disease I have very little to offer. From the quick and almost invariably good results to be obtained by simple abstinence from food, I am inclined to the idea that rheumatism is, after all, only a phase of indigestion, and that by giving complete and continued rest to all the viscera that take any part in the process of digestion the disease is attacked *in ipso radice*.

In most of the cases that I have been able to investigate I have found considerable digestive irritation to exist before the attack set in. Given a number of persons exposed to wet or cold in any shape, some of them will escape altogether, some will have simple coryza, others bronchitis, or perhaps pneumonia, but the malady that concerns us most is almost certain to be reserved for the one who is suffering from indigestion; the congestion that the cold or damp has caused, in each instance seems to search out the individual's weak spot, and, in the case of those seized by rheumatism, my observation, and the good results which rest to the digestive organs gives in the disease, lead me to the same conclusion, viz., that the real trouble lies in the irritated or irritable viscera.

In addition to the essentials of the treatment which I have spoken of in the five cases given, there might be added that *locally* wrapping the oints in cotton wool, and sponging the whole body twice a day with lukewarm water, will be found very soothing to the patient and will help recovery.

An emetic should be administered in almost every case, but it should not be given indiscriminately, and never when the patient cannot readily stand it. If given at all it should be

an active one and antimonial, which, though somewhat depressing, is without equal for the relief that follows.

No food whatever should be taken after the emetic has operated for at least three days (longer if necessary), or until the pain in the joints has considerably subsided. Water or (if the patient prefer it) lemonade is allowed in small and repeated quantities, but starvation is to be regarded as a *sine qua non*. The return to the usual amount of food should be very gradual, and everything eaten during this time should be very digestible. Opium and colchicum are given for the temporary relief of pain, and should be discontinued when the desired effect is accomplished. The mixture of acetate of potash will be found useful, but it is not an essential part of the treatment. A pleasing feature of this method will be found in the rare occurrence of cardiac trouble. The treatment by starvation, if followed according to the rules laid down, will be found to realize all that has been claimed for it—a simple reliable remedy for a disease that has long baffled the physician's skill, and the frequency with which rheumatism occurs will give everyone a chance of trying its efficacy.

In making these statements it must not be forgotten that they apply to the acute form only, experience having proved that, when used in the chronic form of the disease, it exercises no marked remedial powers, and has no advantage over the remedies usually employed in such cases.—*Canada Medical Record*.

BELLADONNA AGAINST SCARLET FEVER.

Dr. J. C. Peters reported to the New York Academy of Medicine "three cases of scarlet fever occurring in one family, recovery taking place in each." To the fourth child in the same family belladonna was administered for the purpose of protecting him from the disease, but it was contracted notwithstanding, and was the only case in the family in which it proved fatal.

Dr. Peters remarked, that his experience in the use of belladonna as a preservation against scarlet fever had been large and unfavourable

In looking up the literature of the subject he had found that Hahnemann recommended $\frac{1}{\text{xx.} \frac{1}{\text{v.}} \frac{1}{\text{v.}} \frac{1}{\text{v.}}}$ of a grain of belladonna, stirred in a glass of beer or milk, as a preservative against the scarlet fever of Sydenham, which Sydenham himself declared would get well of itself, if not disturbed by the officiousness of meddling doctors. Against the scarlatina maligna, however, Hahnemann did not claim it to be preservative, but on the contrary regarded him as foolish who should so regard it.

[In one serious epidemic of scarlet fever, I employed belladonna very systematically as a prevention of anticipated attacks of the disease. I pushed the administration, in these cases, until I established the constitutional effects—dry fauces, dilatation of the pupil, and rash; the children thus treated, without exception, were my most marked and fatal cases.—E. B. S.]
—*N. Y. Med. Record.*

A CASE IN PROOF OF THE NON-IDENTITY OF VARIOLA AND VARICELLA.

BY SEYMOUR J. SHARKEY,

Resident Assistant Physician, St. Thomas's Hospital.

Thomas B—, aged five years, left the scarlet fever ward of St. Thomas's Hospital on Nov. 22nd, 1876, where he had been under the care of Dr. Bristowe. In the same block, and on the floor above, there were, during the child's stay in the hospital, several cases of small-pox. Since his discharge from the hospital he had never felt quite well, but had suffered from headache, slight pain in the back, and anorexia. His friends brought him back on Nov. 28th, with a vesicular eruption upon him, which was said to have appeared first on the legs, though it was then most profuse on the abdomen and back. The child was stated never to have had chicken-pox, and never to have been vaccinated, and there were no marks of vaccination upon him.

On admission, the eruption was not well enough developed to make a certain diagnosis between varicella and variola, and he was therefore isolated in a small ward on the same floor as the small-pox wards. Soon, however, the disease showed all the characters of varicella, and was pronounced to be so by Dr. Risdon

Bennett and by Dr. Bristowe. The patient was then removed to the floor below, and during the next few days fresh crops of vesicles appeared, which were vesicular from the first, had no induration around them, and dried up rapidly.

As small-pox was rife in London, and there were cases of the disease in the block, it was thought advisable to vaccinate the child at once. This was done in four places on November 30th. Four very fine vesicles resulted, which ran their normal course at first, but the areola was never properly developed round them. On December 7th—that is, on the eighth day from vaccination—the child became very restless, his sleep was much disturbed by dreams and apparitions; he had pain in the back, vomited several times, and was feverish. The vomiting was frequent and violent on the following day, and on the 9th of December a few papules appeared on the face, then on the arms; and on the 11th the face, arms, legs, back, and abdomen showed a profuse crop of papules which were clearly the early eruption of small-pox, the scabs of varicella being still present. The primary fever was very considerable, the temperature reaching 105° F., but as soon as the eruption appeared it dropped to 99°. The eruption developed in the ordinary way, and secondary fever of moderate intensity set in early, as shown in the temperature chart. The eruption was profuse, but not confluent. Convalescence was very tedious, and was interrupted by an enormous hard swelling on the left side of the neck beneath the lower jaw, which appeared to commence in the lymphatic glands, and subsequently suppurated. The child recovered, however, and was discharged from the hospital on February 10th, 1877.

This is a case of considerable importance, and one that should be put on record, and the paper recently read by Dr. Farquharson before the Clinical Society has led Dr. Bristowe to give me permission to publish it at once. It places beyond doubt the non-identity of varicella and variola, and shows that vaccination does not prevent the incubating poison of small-pox from producing a well-developed attack of the disease, although eight days have elapsed from the time of the operation. It also shows that

an individual may harbour at the same time the poisons of two infectious diseases, or at any rate the poisons of varicella and variola, each of which shall in due time produce a well-marked attack of the disease in which it originated. For, if we take twelve days as the usual period of the incubation of small-pox, and ten and sixteen days (Bristowe) as the extremes, the patient in question must have been infected by the poison of variola either when the eruption of varicella was out or during the time of incubation of that disease.—*London Lancet.*

DIALYSED IRON.

A preparation of iron has been recently introduced. It consists of the peroxide of iron in the colloid form held in solution in a small body of water: it is, in fact, a *soluble hydrate of iron*. It contains no trace of acid, the equivalent of acid being replaced by the equivalent of water by diffusion (dialysis). This preparation is the nearest approach to the form of iron contained in the blood, and as it has no irritant properties it will doubtless prove to be the most valuable of all the forms in which iron can be administered. We have already given the preparation an extensive trial. Although a strong solution, it has scarcely any taste and is taken readily by children. It does not constipate nor disturb the digestion, whilst at the same time it produces all the good effects we are accustomed to recognize from iron in the other forms in which we have been accustomed to administer it.

The *solution* may be given in doses similar to the muriated tincture, that is, ten to fifteen drops, or for children, about five drops. It may be given before meals, as it does not irritate the stomach.

It cannot be mixed with ordinary hard water, which causes it to flake or gelatinize, but it may be taken in distilled water or dropped on a piece of sugar. Not the least advantage of the dialysed iron is that it can be brought into contact with the teeth with impunity. It may be given with equal effect in the form of a *pill*, each pill being equal to ten drops of the solution, or as a *lozenge*, equal to two drops of the solution.—*Phil. Med. Times.*

Surgery.

TREATMENT OF RETENTION OF URINE.

BY JAMES L. LITTLE, M. D.,

*Professor of Surgery in the University of Vermont: Surgeon to St. Luke's and St. Vincent's Hospitals, N. Y.**

I have selected this subject because it is one that interests the practitioner of medicine as well as of surgery; both being often suddenly called upon to afford relief to a patient suffering from the agonizing torments resulting from a distended bladder. This, when successfully relieved, gives satisfaction both to the physician and to the patient, and is not equalled by anything which comes under our observation, except it be the mother who has just expelled her first-born after a tedious labour, without the benefits of an anæsthetic.

The treatment of retention depends, of course, to a great extent on the cause of the difficulty.

Retention caused by irritation of parts in the vicinity of the bladder, as, for example, an acute attack of, or following an operation for, hemorrhoids; or retention due to overdistension of the organ from neglect to pass the urine; or from the absorption of cantharides, or when it occurs during typhoid fever, paralysis, and other diseases, is easy of treatment.

The introduction of a silver or rubber catheter, of full size, is generally accomplished without difficulty. These cases do not call for any special remarks, except mentioning the one rule to be always borne in mind, namely, to use a full-sized instrument, say No 12, if it can be readily introduced into the external meatus, for large instruments always pass through the urethra into the bladder with more ease than those of smaller size. But when the retention is caused by mechanical obstruction, such as stricture, or enlargement of the prostate gland, the treatment is one that taxes all the resources of the physician or surgeon. The patient must be relieved; his sufferings are unbearable; his urine must be drawn off; no time must be lost, or serious, if not fatal, consequences will ensue.

It is well known that a patient who has a narrow stricture will go about for months and even years, passing his water in a small stream,

* Read before the Vermont State Medical Society.

with considerable exertion, never emptying his bladder completely, and still not suffer from retention. But such patients are liable after a "bout," or sometimes by simply taking cold, suddenly to find themselves unable to pass their water. Warm baths and hot fomentations may in some cases afford relief: but as a rule, when such patients call for their doctor, the bladder is so distended and the suffering is so severe, that instrumental interference is necessary.

The age of the patient, and a few words of his previous history, will at once enable the physician to suspect the existence of stricture. The introduction of a full-sized silver or flexible catheter, will enable him to determine positively the presence, as well as the locality, of the stricture.

If he fail to reach the bladder, it is a good plan to tell the patient to stand up and, making some pressure on the stricture, suddenly withdraw the instrument, telling the patient at the same time to make an effort to urinate. This little procedure, which was first recommended by Sir Benj. Brodie, I have seen succeed in many cases where I have been unable to introduce even the smallest instrument. If this fails, the next sized catheter should be tried, and then the next, until we reach the smallest size. These failing, recourse should be had to the small, conical bougie—*French*. And here let me say that, as a rule, the small French olive-pointed bougie is much more readily passed through a stricture than the sharp-pointed ones, which are so liable to catch in the lacunæ or on the sides of the stricture. These should be carefully introduced, and if the stricture is passed, on removal of the instrument the urine will follow. The urine will often flow alongside of the instrument without withdrawing it, if the patient is instructed to strain.

If the stricture is small, and passed after great difficulty, it is always advisable to try and have the water pass in this way, and then to secure the bougie and let it remain in the urethra if possible for twenty-four hours, or even longer, if it produces no irritation. This is what Thompson calls continuous dilatation, and will often allow a bougie two or three sizes larger to pass in after withdrawal.

It might be well to state here, that it is

good practice to inject with a long-nozzled syringe, or through a gum catheter, as much sweet oil as the urethra will hold, before the introduction of the bougie.

In the majority of cases, the above treatment, if carefully pursued, will enable the surgeon or physician to reach the bladder, and thus relieve the patient.

I might state that on several occasions when unable to enter the bladder, I have succeeded in causing the patient to urinate by injecting a stream of warm water against the stricture through a gum-elastic catheter, with the extreme end cut off.

If we do not succeed in relieving the patient after a fair trial of the above means, we should at once resort to the aspirator. Here we have a sure and safe means for relieving the patient.

A small needle should be introduced a little above the pubes, after a small nick is made through the integuments, and by means of the aspirator the urine can be withdrawn.

In cases of stricture it will be seldom necessary to use this instrument more than once, a bougie readily passing through the stricture in a short time after the bladder has been completely emptied.

I had a case in St. Luke's Hospital where it was found impossible to pass a bougie until the bladder was emptied by the aspirator, and then the instrument was passed without difficulty.

From these results, I infer that emptying the over-distended bladder by aspiration relieves the congestion of the mucous membrane covering the stricture, and in that way permits the introduction of the bougie.

I have made up my mind hereafter to resort to the aspirator early in all cases where I am unable to completely empty the bladder by the urethra, or where I have difficulty in passing the stricture; using it, however, only when the bladder is full of urine.

Puncture of the bladder by trocar through the rectum, or above the pubes, should only be resorted to when it is impossible to obtain an aspirator; and in choosing between these operations, I should certainly prefer puncturing with a small-sized trocar and canula above the

pubes. This has been done with safety, and if the instrument used be small, it seems to me no harm can result; and it is easier and more comfortable to the patient than puncture by the rectum.

A few words in regard to the use of medicinal means. Diuretics should be avoided as they only increase the difficulty. Large doses frequently repeated of the mur. tinc. of iron, say 25 drops every half hour, were frequently resorted to with good results, in the New York Hospital while I was Resident Surgeon. The warm bath, warm fomentations, etc., have a relaxing effect, and are often serviceable.

RETENTION DUE TO ENLARGEMENT OF THE PROSTATE GLAND.

In about 12 per cent. of men living after the age of fifty, obstructive enlargement of the prostate gland takes place. In many cases this enlargement will go on without giving the patient much trouble, excepting that he passes his water much more frequently than he did at the age of thirty. Now, although he may pass his urine more frequently, it is well known that such patients rarely empty their bladders completely, a certain amount of urine, called "residual urine," remaining in the bladder. A patient in this condition is liable at any time to an attack of retention, and the surgeon or physician may be called in to afford relief. The age of the patient and a digital examination through the rectum enables us to make our diagnosis.

In many of these cases the silver catheter with the usual curve will fail to enter the bladder, being arrested at the entrance by the enlargement of the prostate, and we are called upon to use an instrument with a large curve. This should be used with great gentleness, especially when the point of the instrument is passing over the enlarged prostate. Force should never be used, for fear of injuring the prostate and giving rise to hæmorrhage into the bladder, or setting up an attack of cystitis; for as long as we can prevent inflammation of the bladder, our patient can be kept comfortable. When cystitis once begins in a patient with enlarged prostate, it rarely ever entirely disappears.

When retention takes place it generally lasts several days, and requires the frequent use of the catheter. At least three times in the twenty-four hours the instrument should be introduced, and I know of no better way of overcoming an attack of retention in these cases than to teach the patient to introduce a soft rubber catheter, and direct him to empty his bladder, say every three or four hours, without making any effort to pass his urine in the natural way, and not waiting until he feels like passing it. After following out this treatment for a day or two, he then may try to pass it without the instrument, and he will generally succeed.

Where great difficulty is encountered at the entrance of the bladder with the silver instrument, Mercier's catheter may be tried, but I have found no trouble so far in introducing the flexible soft rubber instrument. Well oiled and gently introduced it passes along the urethra without producing much pain, and patients can readily learn to use it without danger of injuring themselves.

I will at this point call attention to the paper of Dr. Van Buren, of New York, on "Plea for the Treatment of the Consequences of Obstructive Enlargement of the Prostate by Early Use of the Catheter," published in the *New York Medical Journal* for July, 1874. In this paper he advises that in order to prevent the serious consequences which arise from obstructive enlargement of the prostate, the patient be taught the use of the catheter, and then give up emptying his bladder in the natural way, relying entirely upon the catheter during the remainder of his life. In that way patients with this disease can go on (he says) for years without trouble. One case he quotes of a man of seventy, hale and hearty, who had used a catheter three times a day for thirteen years. Another case where it had been used twenty years.

Other instruments have been invented for entering the bladder easily in cases of this kind: *Squire's* vertebrated catheter, Mercier's silver and gum catheter combined, etc. In cases where it is impossible to get in an instrument, the aspirator may be resorted to.

The rough use of the catheter in these

cases of retention is frequently the cause of the cystitis which makes the remainder of the patient's life truly miserable, attacks of retention taking place more frequently, and the introduction of any instrument, excepting the soft rubber catheter, frequently aggravating the difficulty. When cystitis has taken place, carefully washing out the bladder, so as to remove the decomposed urine mucus and pus, together with diuretics to dilute the urine and render it less irritating, are the chief indications for treatment. The old way of washing out the bladder through the double catheter, has been superseded by a much more convenient and less painful plan.

For internal treatment I have found the infusion of *triticum repens*, one ounce to the pint, with *gaultheria* leaves, to answer a good purpose. Balsam of *copaiva* in emulsion, 15 to 20 drops, will often act like magic in clearing up the urine, and the old prescription of henbane and liq. potassae is also worthy of trial. Fl. ext. *hydrangea*, in half drachm doses three times a day, is also of great service.

Drachm doses of fl. ext. ergot or hypodermic injection of ergotine have also been recently highly recommended.—*The Hospital Gazette*.

CLINICAL LECTURE ON SOME CASES OF DISEASED KNEE-JOINT.

BY S. MESSENGER BRADLEY, F.R.C.S.,

Surgeon to the Manchester Royal Infirmary; Lecturer on Practical Surgery at Owens College, &c.

The cases before you are examples of some of the most common, but important, diseases of the knee-joint, viz.: simple synovitis, suppuration within the joint, abscess in the immediate neighbourhood of the articulation, ulceration of cartilage, articular osteitis, and pulpy degeneration of the synovial membrane and adjacent structures. That is to say, we have instances of disease affecting each, and in some cases all, the structures which enter into the formation of the joint; and, in forming an opinion upon any case of diseased knee, this question of site is a very important one. Indeed, *situation* and *diathesis* are the two most important matters to be decided; thus, *e.g.*, in this case of simple synovitis, the *situation* of the disease, revealed

by the shape of the affected joint, at once establishes the fact that there is effusion *into* the joint; a little further examination shows that the bones, and cartilages, and ligaments are unaffected, and that the synovial membrane is the sole seat of disease. Then, regarding his general appearance of health, his strong even teeth, his healthy skin, we rapidly decide that here is a man free from any special *diathesis*; and, these two points decided, we at once conclude that this case of simple synovitis in a healthy subject will, with proper treatment, shortly be cured, and the joint be perfectly restored to its *status quo ante*. How different would the prognosis be if the same disease, caused in the same way, occurred in this strumous lad. It is highly important, indeed, that you understand that all, or almost all, the diseases here illustrated may occur in an otherwise healthy subject; or, on the other hand, may be associated with a rheumatic, gouty, syphilitic, or strumous habit—when it becomes a much more important matter to treat the general diathesis than the local manifestation thereof. In the rheumatic, or gouty, or syphilitic habit, after such general treatment, you may hopefully proceed to any operation upon the joint itself deemed necessary; but, in the strumous, you must proceed more cautiously, and in regard to one operation, I mean excision, you are, in my opinion, not justified in resorting to it at all.

Let us now examine these cases a little in detail.

This little humpbacked man is evidently of strumous habit, and has suffered at some time or other from caries of the dorsal spine. He was admitted into the infirmary with a large and painful right knee, the leg bent at right angles, but not ankylosed. There is manifest effusion into the joint, and some of the fluid removed with the aspirator we found to be purulent; yet, although we have here suppuration into this great joint, and the man is of so unfortunate a habit, there is wonderfully little constitutional mischief; the temperature is normal, the pulse is quiet, and the tongue is clean. What is to be done? Constitutional treatment, of course, "goes without saying"; but locally what must we do? I believe the

best treatment here is to make an incision four lines in length along the inner border of the patella, and then, by means of a Higginson's syringe, to distend the joint with a solution of carbolic acid in water (1 to 30), according to the plan suggested by Callender for the treatment of abscesses. Having done this, seal up the small wound with collodion (no drain-tube being inserted), and put the limb on a back splint. I have found this plan succeed in such cases, and it is certainly always well worth trying; for the alternative of freely laying open the joint, with the hope of securing ankylosis in the straight position, is not only a much more formidable procedure, but also not in the least more likely to succeed than the simple method of distension. If either or both these plans fail, and fail they often do, then, in my opinion—reasons for which I will give you more fully by-and-by—you have only one alternative, and that is amputation; excision being an unjustifiable operation in such cases.

The next case to which I draw your attention is one of abscess in the cellular tissue about the joint, and was sent into hospital as one of disease of the joint itself; but that such is not the case, I will proceed to show you. First, you perceive there is no *effusion* within the joint, by the absence of the characteristic swelling beneath the suberureus or by the sides of the patella; next, the movements of the joint being quite normal and painless, you infer that the ligaments are unaffected; the bones do not in any way differ from those of the opposite side, nor is there any pain on squeezing the femoral condyles or tibial tuberosities, or on forcing the patella backwards, nor does the patient suffer nocturnal exacerbations, whence we conclude that the articular ends of the bones are sound; on pressing the articular surfaces together, no grating sensation is produced, by which we know the cartilages are intact. In a word, all the main joint-structures are healthy; and this fluctuating swelling is external to the articulation. Being quite out of the way of important vessels or nerves, without more ado I open it with this bistoury, and, as you see, give exit to a quantity of pus. I now distend the sac in the usual way, introduce a small vulcanite drain-tube, which I

prefer to the ordinary India-rubber ones, because, unlike the latter, they do not collapse on pressure by the bandage; and now, I think, we shall be justified in predicting a rapid restoration to perfect health.

Here we have a typical example of ulceration of the encrusting cartilage. This man has no pain in his knee, no effusion into the joint; but, when you press the patella back and move it from side to side, you feel a distinct bony grating, owing to destruction of the layer of cartilage. Too much, I think, is made of diseased articular cartilage. Certainly, in regard to treatment, this is true. It may ossify, it may atrophy, it may disappear, and unless the contiguous bone become affected, very few, if any, symptoms appear, and very little damage is done. As matter of fact, however, this implication of the bones is the rule and not the exception; such, *e. g.*, was the case with Helen T., whose knee-joint I excised about eighteen months ago. For a long time, she had no symptoms beyond bony grating, then pain manifested itself, especially at night; and this proving quite intractable, in spite of active and long-continued treatment, the joint was resected, when we found much diseased bone beneath the eroded cartilage. I may for a moment dwell upon this case to say that, by some, it would be regarded as a successful example of excision of the knee, inasmuch as the bones united, the pains ceased, and the woman got about again; but, to my mind, it is not satisfactory; the limb is shortened, she is soon tired, and, after walking a short distance, has pain; she would be better off with a good stump and a wooden leg.

This little boy and girl are illustrations of another very common disease of the knee; I refer to articular osteitis. You can see at a glance that there is no effusion into the joint, and may also note that in both the leg is flexed at a right angle with the femur, and that subluxation backwards of the tibia exists, caused by the continued pull of the hamstring muscles. No sinuses have yet formed, and the enlargement of the bones, though manifest enough, is not extreme. Subjectively, we have pain on pressure and nocturnal exacerbation, with muscular spasm. Both little patients, too, have a

pained and wearied look, very sad to see in young children, and both are losing flesh. The osteitis, in such cases as these, is generally set up by some unlucky blow or fall; and if this blow chance to alight upon a strumous soil, the osteitis will probably proceed to general arthritis; yet, if we see cases like this at an early date, we may hope for a happy issue out of the trouble by long-continued rest. Gentleness and quiet are, indeed, our most potent aids in treatment; and after a time, when all inflammatory action is at an end, we may endeavour to restore the limb to a straight line, and overcome the subluxation by very gradual extension. If, by long-continued flexion, the hamstring tendons hamper us in their contraction, there is no objection to dividing any such constricting band with a tenotome.

And now, gentlemen, in the last place, I call your attention to this strumous lad, who has been in the infirmary for the last month with white swelling, *tumor albus* of the knee. He tells me that, before he felt pain, he noticed a difference in the shape of his two knees; on the affected side, the furrows on each side of the patella filled up, and soon after he began to feel pain at times and limped in his gait. Seeing this, his mother, wiser than most, brought him to the hospital, where he was at once admitted. The joint is generally enlarged, and, if we could look into it, we should find the cavity encroached upon as much as the tissues outside, owing to a villous thickening of the synovial membrane. Pressure gives little pain, and there is no increase of pain at night. Now, if this lad had been allowed to run wild a little longer, he would have limped more and more as the joint became more and more painful. The leg would have become flexed, and by-and-bye abscesses would have formed and opened around the joint. These would, perhaps, dry up after a time, leaving sinuses, with a temporary improvement of the health; then fresh abscesses would form, and the lad, emaciated and reduced by constant pain and discharge, would at length die, death being possibly preceded by an amyloid degeneration of the viscera, a condition not unfrequently superinduced by long-continued suppuration. By treatment, however, we may rationally hope

to avert so calamitous a termination. The limb is placed upon a splint, both ankle and knee being immobilised, and after all inflammatory symptoms are reduced by rest and ice-bags, counter-irritation will be employed under chloroform in the shape of the actual cautery. Under this treatment, the pain will probably disappear and the swelling subside; in the latter stages, pressure will be employed by strapping over Scott's dressing. In the meanwhile, we give cod-liver oil and plenty of milk, two quarts daily, and, above all, exercise much patience; for these cases require a long time, a year perhaps, to effect a perfect cure. It may be indeed that, despite all our efforts, the destructive action progresses. Pyrexia announces the constitutional sympathy; the joint becomes larger, softer, and more tender; abscesses repeatedly form; and the joint becomes filled with pus and broken-down tissue. If such a fate await this poor boy, I shall open the joint on one side of the patella, and hyperdistend the synovial cavity with a one in thirty solution of carbolic acid. Should this plan fail to arrest the mischief, I should at once proceed to amputate the thigh, when, in all probability, you would find that, in a few weeks, the lad would be up and about in a vastly improved condition of general health.

I cannot but warn you against excision in such cases, although the operation is advocated by some surgeons even in the young. I confess to a strong impression that excision of the knee is, under nearly all circumstances, a bad operation, and one which will sooner or later fall into a deserved desuetude; for, after all, what is the end and object of every operation? Surely this: to cure your patient with as little risk as possible, as soon as possible, and with the best results as to utility of parts as possible. Now, how does excision of the knee fulfil these requirements? It seems to fulfil none of them. It is a more risky operation than amputation; it is an infinitely more tedious operation than amputation in the after treatment; and as to results, however pleasant it may sound to save a leg, I would very confidently back the first casual dozen one-legged men against any picked twelve men with excised knee-joints in a walking, or a jumping, or a climbing match. Look

at our recent experience of this operation—at least, take my own. Within the last eighteen months, I have excised the knee-joint five times; in two cases, after a long and tedious effort at repair, I was compelled to amputate; the other three have still their legs on, but what are they worth? The best of them cannot go half a mile without pain and trouble; and the worst of them, this poor fellow before you, has been lying convalescing (!) here for the last six months, with the grand result of just being able to lift his leg in one piece off the bed. If things go as merrily as hitherto, he may hope in another six months to make the tour of the infirmary flags, when, if he have the good luck to fall down and break his stiff leg, I shall not hesitate to advise him to allow me to substitute a wooden-peg for his own very indifferent member. Whatever be the ultimate fate of this much bepraised operation of excision of the knee, depend upon it that, in cases of strumous arthritis, the game is at no time worth the candle.—*British Medical Journal*.

PIECE OF NUTSHELL IN AIR PAS-
SAGES OVER THIRTEEN YEARS.—
RECOVERY.

BY J. W. LUSE, M.D., CLEVELAND, OHIO.

EDITORS OHIO MEDICAL RECORDER:—*Gentlemen*:—I was called upon to treat a child, son of George and Phoebe McFarlin, of Townsend township, Sandusky county, Ohio, in February, 1864. The boy was two years and two months old, and was suffering from an attack of bronchitis, with hard breathing and suffocation. The parents supposed the child had inhaled a small piece of the shell of a hickory nut. The proper remedies to allay bronchial irritation were administered with but temporary effect. Other physicians were called from time to time with similar results. The child's life was finally despaired of, as it was supposed the left lobe of his lungs was entirely destroyed. But on Tuesday, June 5th, 1877, after a lapse of thirteen years, three months, and seventeen days, he coughed up the piece of nutshell, which measured almost seven-sixteenths of an inch in length, and five-sixteenths of an inch in width, from point to point, in the shape of a cross, rough on the extremities and curved length-ways.

SEMI-ANNUAL REPORT IN PRACTICAL
DERMATOLOGY.

BY HENRY G. PIFFARD, M.D.

LOCAL TREATMENT OF PSORIASIS.—Mr. Cottle (*Lancet*, Sept. 30, 1876) recommends a solution of india-rubber, made by dissolving half an ounce of india-rubber in eleven and a-half ounces of chloroform. He has found it useful in chronic cases of psoriasis, where there is an excessive formation of dry scales, especially in the neighbourhood of the joints. The crusts and scales being removed, and the absence of grease insured by wiping the parts with ether, and the skin dried, the solution is applied with a brush, and the application renewed as often as is needful to maintain a continuous covering over the affected skin. He has met with more rapid recovery in these cases by this application than by the ordinary local measures. He thinks the same treatment is applicable to some cases of chronic eczema.

TREATMENT OF ERYSIPELAS.—Dr. Charles Bell (*Edin. Med. Jour.*, August, 1876) believes that the failure which many experience in the use of the muriated tincture of iron in erysipelas, is due to the fact that it is not usually employed in sufficient doses. He recommends that it shall be given in twenty drop doses, every two hours, day and night. When thus used, he says, that it is a certain and unfailing remedy.

TREATMENT OF ACNE.—Chantry (*Lyon Med.*, June, 1876) uses with benefit iodide of sulphur in the severer forms of rosacea acne. He gives it in pills, each containing 0.03 (gr. ss.) iodide, and 0.12 (gr. ij.) extract dulcamarae. Locally he uses:

R	GRAMMES.
Potasse sulphid.....	
Tinct. benzoin	aa. 4. (ʒi.)
Aquæ	100. (ʒiii ss.)

A dessert spoonful is added to a glass of warm water and applied twice a day. (We have seen decided benefit follow the internal use of iodide of sulphur on indurated acne, but have rarely been able to employ it in doses exceeding 0.005 to 0.001 (gr. 1-10—1-6) without producing gastric disturbance. Externally in the form of ointment it has been used for many years.

TATTOOING OF NÆVI.—Sherwell (*Archives of Dermat.*, April, 1877) "takes a number of fine sewing needles, first sharpening and somewhat roughening their cutting edges with a fine flat file, at and for a short distance from their points, and then by means of heavy sewing machine silk, well waxed, wrapped around the upper two-thirds of each in turn, and all together, forms a fascies-like bundle, the points being somewhat less than an inch apart." When prepared, he takes a saturated or 50 per cent. solution of carbolic acid, or a 25 per cent. solution of chromic in a shallow vessel, and dipping the points of the needles therein, makes a series of punctures into the skin of the affected region. After the usually slight bleeding ceases, he wipes off the part with a little alcohol and quickly applies several layers of collodion. (The method here detailed is simpler than that of Squire, noticed in our last Report, and is probably as effective.—*Archives of Clinical Surgery*.)

THE AUTOMATIC METHOD OF REDUCING LUXATIONS OF THE HIP.

In October last there was admitted to Dr. Crosby's wards in Bellevue Hospital a typical case of dorsal luxation (the toes resting on the opposite instep, there being very marked rigidity present, and abduction being entirely impossible), but which had been diagnosed as one of fracture of the neck of the femur within the capsule, by a physician outside, and treated as such for about thirty hours previous to admission. Under these circumstances, he resolved to at once adopt the following plan. The patient, having been placed on his back upon a blanket spread upon the floor, was thoroughly anesthetized, in order to obtain complète muscular relaxation, and the legs were flexed at a right angle upon the thighs, and the thighs similarly flexed upon the pelvis, for the purpose of removing the strain from the ileo-femoral or Y ligament. Dr. Crosby then placed his hands under the calves of the legs, quite near the knees, and, raising the pelvis a short distance from the floor, made very slight adduction of the affected limb,—when in about half a

minute from the commencement of the manoeuvre he had the satisfaction of feeling the head of the bone slip into its normal position. He explained that in this procedure the patient was made to perform the reduction himself, a sort of *jelo-de-se*, as he termed it; the weight of his body supplying the extension, while the counter-extension was made by the operator, who performed simply the office of a post, though an intelligent one, to be sure. The method was first described to him by a friend of his in Vermont, Dr. J. G. Allen, who had hit upon it accidentally about two years ago, while in the act of lifting a patient suffering from this dislocation, so as to get him into a suitable position for performing the usual manipulations attempted for the reduction of the deformity. Since then he has adopted the same course, with equal success, in two other similar luxations; so that Dr. Crosby's makes the fourth case in which the procedure has been employed. So far as Dr. Crosby has been able to ascertain, these are the only cases in which it has ever been done. In Dr. Bigelow's admirable monograph on luxation of the hip (a copy of which, strange to say, he found it difficult to lay his hands on in New York) he has found that the same position was used in a number of instances there recorded, but the method pursued was always different from that which he had ventured to call the automatic.—*Phil. Med. Times*.

CANADIANS ABROAD.—In the list of the medical degrees conferred at the University of Edinburgh on the 1st of August, we notice the names of the following Canadians:—*Doctor of Medicine*: Robt. Alex. Gibbons, Canada, M.B., and C.M., 1874; marked as being worthy of competing for the Dissertation Prizes. *Bachelor of Medicine and Master in Surgery*: Alfred Joseph Harvey, (B.A., McGill,) Newfoundland; John Oke Horden, Canada; Andrew Walker Herdman Lindsay, (B.A., Dalhousie,) Nova Scotia; Arthur Charles James Rudd Lundy, Canada; Jno. Stewart, Nova Scotia. The M.D. was conferred on 33 gentlemen (of M.B. standing), and the M.B. on 105: M.B. and C.M., on 98.

Midwifery.

EXPERIENCE IN PUERPERAL ECLAMPSIA.

BY A. J. JESSUP, M.D.,
Of Westtown, New York.

In my experience of eclampsia in the puerperal state, I have observed the following facts:—

1. There has always been albuminuria, or, more strictly speaking, uræmia; although undiscovered, from lack of thoroughness in examination.
2. In a majority, the convulsive seizures occur between the fifth and seventh month of utero-gestation.
3. That a firm fibre, with an adipose temperament, are the class, *à priori*, in which we would most frequently expect convulsions.
4. When setting in after labour, with complete or nearly complete suppression of urine, death is inevitable.
5. As a nearly exceptionless rule, when labour has declared itself, empty the uterus as soon as practicable, no matter at what period of pregnancy occurring.
6. When there is no declared action of the womb, refrain from interference, unless at full term, when, if convulsions persist, empty the uterus.
7. Almost always when occurring prior to full term, the life of the fetus is destroyed; occasionally this happens at full term. These results being due to convulsions or blood-poisoning to the fetus, or both.
8. When conditions are favourable, extract blood largely.
9. Chloroform must always be an adjuvant to venesection, or, when the former is not practicable, give to control the fits; the method will be mentioned further on, when mentioning cases.
10. The use of some free evacuant to bowels, skin, and kidneys, is most imperatively demanded, the object being, as far as possible, to unload the blood of the poisonous principles, the elements of the urine.

My object in this report is merely to give the aspects and mode of management of my

cases, and not to enter into a pathological history of the disease; to offer them to your readers as my quatum toward the aggregate of experience in this interesting affection.

CASE 1.—Mrs. J. Reported by Dr. J. H. Thompson, May 28th, 1870, in the *Medical and Surgical Reporter* of that date. Patient was my wife; the main peculiarity in treatment was the extraction of blood from the temporal artery, owing to the excessive œdema of the arm concealing the veins, and rendering venesection impossible, together with a concurrent dislocation of the humerus, caused by a fall from her couch during the first convulsion.

CASE 2.—Patient was the same lady, aged twenty-eight, at full term July 13th, 1871. Fits occurred at full term, after delivery. Albumen first seen at sixth month; urine was tested daily up to day of confinement, showing increasing proportions of albumen, until it became nearly solid in the test tube; kept up a thorough dietetic, diuretic, and moderately laxative treatment, which, however, did no more than prevent anasarca, and kept up a moderate flow of urine, without relieving the renal oppression. A consultation was proposed, with the view of bringing on premature delivery, but was objected to by patient; she preferred to assume all risks, in the hope of having a living child. Here we cannot too much admire the heroic unselfishness of mothers, who prefer to hazard life itself rather than forego the prospect of maternity and all its hallowed affection, which extends even to the child yet unborn. After a tedious labour of nine hours, tedious from rigidity of the os, was delivered of a still-born child at full term, weighing eight pounds. One half hour afterward seized with clonic convulsions, affecting chiefly head, face, and arms. Pulse feeble, 140; weak; skin cold; countenance purple; there did not seem power in the feeble heart to propel the blood to the surface, therefore venesection was without results. Two medical friends saw her, agreeing that her condition was one of uræmic oppression of the nerve-centres. The slight convulsions were warded off by chloroform, and, indeed, they formed no material element in her danger; she remained semi-comatose during the night, arousing at intervals, taking cold water

freely; no urine; bowels would not respond to jalap, elaterium, or two drops of croton oil. On using the catheter obtained about one-half ounce of urine, very dark, of the consistence of molasses; no more secreted while she lived. There seemed no response from the nerve-centres of organic life, to any stimuli employed; pulse, seven hours after first convulsion, was beyond computation; coma complete. The final scene ended fifteen hours after the first fit, and twenty-seven hours after commencement of labour. Toward the end congestion of the lungs was present very markedly.

This mode of death from uræmia is mentioned by Alonzo Clark. Here was a case in which the nerve-centres, brain, medulla, and all the ganglia of organic life were overwhelmed by the blood-poison everywhere present throughout the tissues, supplied by the vitiated fluid, whose deadly effects were observed even on the fetus in utero, failing, as I believe, to support the life there, on account of its poisonous ingredients. Being insufficient to supply the medulla and par-vagi, they, in their turn, failed to stimulate the heart and lungs, as evidenced by the damming of blood on the right side of the heart, and slowness of the respiratory actions. By the breathing during the last twelve hours of life, it would seem that the par-vagi were insufficient, by their inhibitory function, to keep up normal respiration, the character of the breathing being thus: becoming slower and at longer intervals, until scarcely perceptible, then there would come a deep gasp, then the process repeated as before; as if nature required to be supplemented by the voluntary act in order to re-establish her function, which, when removed, respirations came faint, and fainter, until the vital function seemed almost submerged by the letheal tide, before a voluntary effort would come to temporarily restore the function, until final congestion and insensibility marked impending dissolution.

Another effect of this blood state is shown in the failure of the sympathetic to respond to cathartic action, the kidneys to diuretic, resulting in engorgement, congestion, inflammation, and final suppression of secretion.

The skin acted profusely, but only by a wa-

tery exudation, without smell or colour, and valueless as an outlet of poisonous materials.

I have dwelt thus long upon this case, because of the deep personal interest, and also hoping to throw some light upon those physiological and pathological actions of which I have seen no adequate explanations in the writings or teachings on the subject of uræmia, and hoping they may aid in throwing some light on the phenomena of other cases of this disease. I pass on to Case 3, merely hinting that those gentlemen who claim never to have lost a case of eclampsia, who are drawn up in battle array against those who have, should consider that it is their good luck, and hoping that, should the time come when they will meet one of these helpless cases, they may feel more charitable to their more unfortunate brethren.

Puerperal eclampsia; primipara, 7 months, æt. 22, with delivery by craniotomy. E. T.; called December 31st, 1874; of robust physique, in seventh month; being absent, Dr. Whitaker was called, both being present at 3 p.m.; had had four convulsions a few days previously; complained of headache, vertigo, and general malaise; with the doctor's help withdrew 28 ounces from the arm; at 4.30 p.m. a fifth fit occurred; kept her under chloroform until one hour had passed; the sixth fit occurred. The doctor left; I kept her under anæsthetic nearly continuously for three hours, giving thirty grains potassium bromide every thirty minutes, and half grain morphia, subcutaneously; not repeated; no more convulsions, urine highly albuminous; prescribed inf. dig. with an active purge.

January 1. Pulse, 90; temperature, 98; had rested well; bowels had acted freely; urine normal in quantity, albuminous.

From this date until January 6th was about the house; on the evening of this date was taken in labour, with some pains until 8th, when they began more actively; on being called, was again absent; Dr. Whitaker saw her; found os would admit two fingers; gave a full dose fl. ext. ergot; left. When I saw her the os was as large as a half-dollar; uterus seemed in a state of tonic contraction, with rigid os. Feeling certain that the ergot was acting badly, and having some anxiety that my patient should

do well, having passed through one siege of eclampsia, I regretted the dose having been given; however, it would do no good to lament, so I tried every known method to relax the rigid os without avail. At 2 a.m. the same night, the pains continuing severe, without further dilatation, patient becoming exhausted, with a wild look in her eyes, what I most dreaded happened, one of the most severe, long-continued convulsions I ever witnessed; bled to 16 ounces; chloroform; a second fit occurred in thirty minutes. I kept her fully under chloroform; sent for Dr. Whitaker and Dr. Haynes, who, arriving, agreed with me that, as it was unsafe to attempt delivery with forceps, we should proceed to deliver by craniotomy at the earliest possible moment, as we had grave reasons to fear a third convulsion like the last. Dr. Whitaker gave the anæsthetic; Dr. Haynes aiding by supporting abdomen, I proceeded to perforate; guarding the lips of the os by the fingers of the left hand, I succeeded in breaking down the cranium and delivering. Uterus contracted well; patient, after some fever and debility, made a good recovery. There was no doubt about the life of the child being extinct; motion had not been felt for more than twenty-four hours past.

I do not remember having heard of a case where craniotomy was required from such a cause. This case required immediate action; delivery must be had without delay, all the medical men present agreeing that the brain could not withstand the pressure of another convulsive seizure.

CASE 4.—Puerperal uræmia, with impending eclampsia. A. Mc—, aged 27; primipara; adipose; plethoric; had always had perfect health; had been suffering with headache, with abdominal pains, referable to region of the stomach, and nausea, for one week previous to my visit. I was called on account of a violent and persistent headache. She described pain "as if caused by a nail being driven over right eye." I tested urine, and found it highly albuminous. While engaged in this, patient called me to the bedside. She sat up, saying that she could see but half of my face, while the supra-orbital pain became so intense as to cause her to cry out with agony. Without

losing a moment, I took blood without stint, not caring for measurements. I bled until she fell over on the bed, fainting, in all a large wash-basin, nearly full—about three pints. This relieved the intra-cranial pressure, as also the pain and defect of vision. The usual evacuants, with sedatives, were prescribed. At the end of three days I was summoned to attend her in miscarriage, death of the fetus having taken place, and, of course, the uterus proceeded to expel the foreign substance. This must have been a result of uræmia. This case will also illustrate the necessity of extreme caution in dealing with pregnant primiparæ. We should examine the symptoms with extreme care, to the end that we may be enabled to step between the patient and danger or death, and so happily ward off either.

Propos. Since we have so powerful an agent for relief, when used in proper cases, it would be well to remind those physicians who, in following modern fashions too much, neglect this important therapeutic agent, that in seeking a substitute in chloral, veratrum, aconite, and other deadly agencies, they are handling two-edged swords, which oftener sever the "silver cord" than relieve disease, and would call their attention to the report of a case from the pen of W. H. Parrish, in the *Reporter*, February 23rd, 1876, Case 3. The treatment there needs no comment.

CASE 5.—Mrs. DeG., age 23, primipara, full term, of delicate frame but healthy; albuminuria; venesection, twelve ounces. In this case chloroform controlled fits easily (as indeed it did in all of my cases subsequent to venesection). Labour set in three days after, with the birth of a healthy child.

I will conclude with a description of the method which I have found most useful in administering chloroform.

The fits generally recur at exactly equal intervals. For instance, if the first two are fifteen minutes apart, they will continue to recur at the end of each fifteen minutes; if half-hour apart, one hour, and so on, unless the order of succession is broken by your efforts to subdue, or some change takes place in the phase of the attack. The practical application of this observation will be appreciated when giving chlo-

reform; it would be unwise to keep a patient under chloroform from hour to hour, so my plan is to watch the clock, and when the time approaches when we may certainly expect a convulsion, I bring the patient fully under, keep her so until the time is past, then discontinue until the next, and so on, when, after four or five hours of such treatment, your patient will be secured for a considerable time, say twenty-four or forty-eight hours, from a recurrence of the fits; generally the period of immunity persists until the onset of labour. There is one little caution needed. We will suppose you have controlled three fits; in doing so you have broken the order of their regularity. You then relax your vigilance, and are surprised by a fourth.

Now, to make sure that there shall be but one fit after I enter the house, I pursue the method as above, with the further watchfulness of commencing the anæsthetic at the slightest signs of restlessness, staring, etc., which signs are generally the premonitions of a convulsion. Such a plan, followed for several hours, will, as remarked above, save your patient from the added risk of even one convulsion. Adjuvants, as mentioned above, will carry your patient on, until labour supervenes. If it has set in the uterus must be emptied as soon as practicable.—*Med. and Surgical Reporter.*

A YOUNG MOTHER.—An esteemed and entirely trustworthy correspondent has furnished us with the following facts touching a case which came under his observation. As an instance of early maternity, the case is one which certainly vies with any case on record: The girl first menstruated when ten years and six months of age. She became pregnant at eleven years and six months, and was safely delivered of a male child January 19th, 1875. The reputed father of the child was, at the time, a hopeful of fourteen years of age. The child is still alive, but not very strong or bright, although the promising parents are doing as well as could be expected.—*Detroit Journal.*

Hydrobromic Acid is highly spoken of in tinnitus aurium.

OBESITY AND AMENORRHOEA OF YOUNG WOMEN TREATED BY MILK DIET.

M. Tarnier was consulted some time ago by a young woman who had been suffering from albuminuria. She was very fat and had not menstruated for several months. He ordered only the vigorous employment of a milk diet; some months later he saw her again, and was surprised to find her quite slender in form, and presenting all the appearance of health. She had followed his directions to the letter, and the amelioration of the symptoms had been rapid. First the albumen disappeared from the urine, and then the precocious obesity disappeared. Menstruation was gradually re-established as she grew thin, and her periods had begun to occur at normal intervals. Shortly afterwards Tarnier ordered milk diet to a young woman who was very obese, and in whom there was absolute suppression of the menses. She had no albuminuria. The patient lost flesh rapidly, and menstruation was perfectly re-established. These cases possess much practical interest. Milk diet must be classed among the alterative medications, but it has the advantage of being well borne by the stomach, and of not disturbing the general health. In treating albuminuria with milk, M. Tarnier orders: For the first day, one quart of milk with two portions of food; for the second day, two quarts of milk and one portion of food; for the third day, three quarts of milk and one portion of food; for the fourth day and afterwards—four quarts of milk and no food at all.

In the treatment of obesity it is not necessary to adhere so vigorously to the milk diet; a small quantity of the ordinary food may be allowed. The patient may take the milk in such quantities, and at such times, as she likes, provided she takes the requisite quantity per diem. The duration of the treatment will vary in different cases. If diarrhoea set in, it is a sign the treatment is not well borne. When the desired effect begins to show itself, it continues even after the treatment is suspended.—*Jour. de Med. et de Chir., Vol. 47.—N. Y. Medical Record.*

Cases in Practice.

A CASE OF VESICAL CALCULUS.

BY J. E. GRAHAM, M.D.

Toronto General Hospital.

Wm. Davie, aged 38 years, labourer. When about eight years of age (living at that time in Suffolk, England) was troubled with pains in glans penis and stoppage of stream while urinating. This continued for about three years, when it disappeared almost entirely under appropriate measures. The next attack of any consequence was when he was 17 years old, but this also succumbed to treatment. Has had several similar recurrences since then; never been entirely free from pain and symptoms since disease first appeared. Came to Canada in 1857. Last attack, which is the worst he has ever experienced, came on about end of April, 1877. He attributes its severity to a strain received at work. Was obliged to take to his bed. Symptoms: Pain across lumbar region of back, and down right hypochondriac and right lumbar regions, and in hypogastric region.

Pain of a burning, smarting character. While urinating stream stops suddenly, and only proceeds on changing position. Can pass but a few drops at a time. Stone was found on examination, measuring —

First crushed May 18th, and ascertained to be phosphate of lime. After operation, complained of a good deal of pain about hypogastric region. Passed water continually, a few drops at a time, tinged with blood, and containing some pus. Bladder syringed out daily with tepid water. Inflammatory symptoms subsided. Second crushing attempted May 26th; unable to detach any fragment. After operation: pain in vesical region, and passage of urine laden with blood and pus; bladder washed out daily with solution of salt or nitric acid, \mathfrak{ss} to a pint. Difficulty in introducing catheter past neck of bladder. May 30th, blood entirely disappeared from urine, but pus still present. Complains of weakness and chills, which he says have troubled him for some time, coming on at stated periods. Anorexia, aphonia, pulse 120. June 1st, pulse normal, complains of weakness and chills, fol-

lowed by apyrexia. Suddenly taken worse about 6 p.m., and died at 11 p.m. same night.

Post-mortem, June 3. Round tumour below and behind pubes, very hard. On removal found to consist of bladder contracted close down on calculus. Calculus, $2\frac{1}{2}$ inches long and 2 inches in breadth, weighing \mathfrak{ziii} . \mathfrak{zvi} . In appearance and shape like a fair-sized hen's egg, surface yellowish white, and tolerably smooth, except at one side, where the fragment, removed at first crushing, had left a denuded roughened surface of about three-quarters of an inch in length and one-half inch in breadth, showing strata of calculus. Bladder contracting and pressing calculus close beneath pubis, prevented introduction of catheter. Base of bladder full of fragments of calculus of various sizes, some being very sharp and pointed. Coats of bladder very much hypertrophied. Kidneys: left kidney strawberry colour, cirrhotic, contracted to about one-fourth its normal size. Tissue $\frac{3}{4}$ degenerated, and very friable. Right kidney: tumour felt on right side, extending from the tenth dorsal to the third lumbar vertebrae. On examination, found to be the capsule of right kidney distended with coagulated blood. Kidney itself much hypertrophied, being about $1\frac{1}{2}$ times the normal size towards inferior portion of cortical portion, a small aperture about one eighth inch in diameter, through which blood had escaped. Tissue of kidney degenerated. Colour darker than normal. In hilus, calculus found about $1\frac{1}{2}$ inches in length and three-quarters inch in breadth at broadest part, weighing $1\frac{1}{2}$ oz, very irregular in shape, and of same composition as vesical calculus. Liver not examined.

Had always been accustomed to drink pretty heavily.

In Suffolk district, England, calculus is very prevalent. Grandfather's brother's family very subject to it, but is the only one of his branch that ever had it.—*Reported by Mr. Burton.*

Mr. Simon (in the *Chicago Medical Journal and Examiner*) states that he instantaneously cured a case of hiccough, which had lasted twenty-six hours, by the inhalation of three drops of nitrite of amyl.

WOUND OF THE FEMORAL ARTERY BY A PISTOL BULLET—LIGATION— DEATH THIRTY-ONE HOURS AFTER.

BY R. ZIMMERMAN, M.D.

Toronto.

George Rennardson, aged 47, was shot by his son on the evening of June 27th. I saw him a few minutes after the injury, and found that the bullet had entered the upper and front part of the right thigh about one inch below Poupart's ligament, and exactly over the course of the femoral vessels. When I arrived, the hæmorrhage, which had been profuse, had completely ceased, as far as one could judge from external appearances. The man was very weak, and complained of great pain in the leg, which was exceedingly tender. A swelling, apparently due to blood clot, could be felt under the skin around the wound. There was no pulsation in the femoral, popliteal, or posterior tibial arteries. I applied a compress and spica bandage very firmly over the wound, and gave morphia hypodermically to ease the pain and vomiting, both of which were severe. Dr. Cassidy, who had been sent for at the same time as myself, now arrived, and we appointed to see the patient together early in the morning. About 5 a.m., I was obliged to repeat the morphia hypodermically. At 9 a.m., Dr. Cassidy met me, and we found that the limb was still pulseless below the wound, very cold, and much swollen between the groin and the knee. Fearing internal hæmorrhage and gangrene of the leg, it was decided to cut down upon and ligate the wounded vessel, which I accordingly did at 10 a.m. Present—Drs. Cassidy, Greenlees, Cameron, Grasett, Teskey, and Cowan. On reaching the deep fascia and withdrawing my finger, which I had passed into the wound, the blood gushed out. Digital pressure over the femoral artery readily controlled this, and the femoral vessels being exposed, ligatures were placed round the femoral artery above and below the wound, which was situated about one inch below Poupart's ligament, and had perforated the artery. The ball was not visible, and it was not considered desirable to search for it. Very little blood was lost during the operation, although there was some difficulty in passing the upper ligature on account of the pressure

that had to be kept up on the artery. The edges of the incision were brought together by wire sutures and the patient placed in bed, the limb being wrapped in cotton wool and surrounded again with hot bottles. The patient rallied well from the chloroform, and was pretty comfortable during the day, although exceedingly weak. At 4 a.m., on the 29th, I was sent for, and found him dead. At the *post-mortem* a conical pistol bullet was found lying on the capsular ligament in front of the head of the femur: it was flattened on one side. The artery was wounded immediately above the profunda, so that one ligature was above, the other, below the origin of this vessel which was not seen during the operation. Had collateral circulation been established the blood would have travelled through the branches of the profunda to the wound and profuse secondary hæmorrhage must have occurred. The collateral circulation to the leg being thus cut off, even if the secondary hæmorrhage were controlled in time, gangrene of the leg would have been almost inevitable. Transfusion and amputation of the leg at the hip-joint might have given him a chance for life. It is probable that syncope, from the great loss of blood, and subsequent coagulation of the blood effused into the tissues about the wound, averted an immediately fatal termination. A large quantity of coagulated blood was found extending along the vessels up into the abdomen and down the thigh. All the organs of the body were healthy, though almost bloodless.

LARGE SCROTAL HERNIA IN A YOUNG CHILD; OPERATION FOR RADICAL CURE BY WOOD'S METHOD.

Under the care of Mr. Wood, King's College Hospital.

On Saturday last Mr. Wood operated on a case of large scrotal hernia, in a child aged three years. The case presented several points of interest. The appended remarks have an additional value, inasmuch as they give the results of Professor Wood's most recent experiences.

The case was congenital, and no truss was of any avail. The abdominal opening was large enough to admit easily two fingers direct, and

very lax. The coverings of the sac were thin and delicate. The case required delicate and careful manipulation from the great tendency of the bowel to rush into the sac under the least strain. The rupture could be returned, and kept up most easily by holding up the little patient's legs and pelvis. The fingers of the assistant were then placed over the hernial opening, while the preliminary incisions were being made. The sutures were then placed securely, and the loop of wire tightened up and twisted, with the effect of entirely closing up the hernial aperture. Pressure was then made by a pad and spica bandage, and the child's knees drawn up and held securely together by a roller.

In his remarks after the operation, Mr. Wood stated that he had now operated in more than 200 cases, but few of them were so young as this case, for the reason that it was found difficult to control one so young during the critical period just after the operation. This case, however, was so severe and uncontrollable, and so certain if left in its present state to disable the patient for life, that an exception was made to the above rule. With reference to the supposed danger of peritonitis, Mr. Wood said that of the three deaths which had occurred in his hands out of the 200 cases, only one was from peritonitis, but even this was found to arise on the opposite side of the abdomen to that operated on, and to have started from a knuckle of bowel which had evidently been in the sac before the operation, and pressed upon by the truss. No inflammation was found in or near the sac operated on. He had found symptoms of peritonitis in not more than 10 out of the whole 200, and then it was usually slight, and confined to the parietal peritoneum. The chief thing was to choose only healthy subjects for the operation, and to be careful to provide a free escape for any discharge which might occur. Usually the after-discharge was very scanty, and consisted chiefly of serum, which crusted the wound. The wire should not be disturbed till a week or ten days had elapsed, and both the doubled ends had ulcerated into the same track or channel. Adhesion and granulation would by this time have matted together and made adherent the enclosed and

twisted sac and parietes of the canal. In a severe case the adhesions usually remain for some time delicate and tender, and require support from a well-fitting truss till they are firmly consolidated. In a small and favourable case, however, the sides of the inguinal canal become blended together over and around the spermatic cord, and the natural valvular functions which prevent rupture are restored and maintained. As far as he could follow the numerous cases, he found an average of cures of about 70 per cent. Some had been shown from time to time in the theatre of King's College Hospital after a lapse of eleven, fourteen, and sixteen years; remaining (one under severe tests) perfectly well, and requiring no truss after the first twelve months.—*London Lancet.*

ACUTE ABSCESS OF THE TONGUE (UNILATERAL); RECOVERY; RE- MARKS.

Under the care of Mr. Bellamy, Charing-Cross Hospital.

Suppuration of the tongue in any form is a rare condition, but unilateral suppuration particularly so. It is a disputed question whether the seat of inflammation is in the muscular tissue or in the interfibrillar cellular tissue. It should not be forgotten that the cellular element in the tongue is scanty, and is disposed in very delicate lamellæ, especially towards the middle portion of the organ—the seat of abscess in this instance. The seat of the swelling is somewhat important anatomically in regard to the differential diagnosis of cancer. The case here recorded was, it will be seen, in all probability the result of the introduction of some septic material immediately beneath the mucous membrane, in which the lymphatics form a very free network, terminating in the submaxillary, infra-sternomastoid, and pre-thyroid ganglia, which were involved.

The patient was a child aged seven, who presented herself with a very painful unilateral swelling of the right half of the tongue, which was much furred. It was said that the tumour—which was so large as to render protrusion of the organ impossible—came on suddenly; but examination disclosed a small jagged cut on

the under surface of the central portion of the tongue. It would almost appear that some particle of decomposed food had been lodged in the wound. The tumour involved the entire dorsum of the one side, being clearly limited by the central line. A plunge of a lancet evacuated a large quantity of pus. It was clearly shown that the abscess was in the proper substance of the tongue, and the limiting effect of the septum upon the diffusion of the pus was well exemplified. The topography of this septum could be easily demonstrated as being strong and thick mesially and posteriorly, gradually becoming thinner towards the tip, where the swelling seemed to involve both sides of the organ. Mr. Bellamy called attention to the fact that the trunk of the ranine artery is liable to lie loose in the sac of a lingual abscess, and would give great trouble if divided; and, moreover, that, owing to congestion, the venous system of the tongue becomes enormously enlarged and the free inosculation increased, consequently severe hæmorrhage may be the result of an ill-directed "slash" into a lingual abscess.—*London Lancet.*

EXPERIMENTS TO SHOW THE PRESENCE OF MERCURY IN MOTHER'S MILK.

A number of investigations have been made recently to settle the much-vexed question as to whether the presence of mercury could really be shown in the milk of a mother to whom mercury had been given. The investigations made in Judakowski's laboratory, after Schmeider's method, demonstrated the presence of mercury, putting the matter beyond all doubt. The amount of the mineral was very small, and the reason why it had not previously been demonstrated was because the quantity of milk used in the test had been altogether insufficient. *Rundschar.*

Dr. Bryan, of Louisburg, Kansas, records in the *St. Louis Medical and Surgical Journal* for July, a case of gestation prolonged to four hundred and forty-two days. He states that the facts can be established beyond cavil.

India-rubber caps to feeding bottles, toys, etc., sometimes contain enough oxide of zinc to make them a source of danger.

Original Communications.

MODERN OTOLOGY.

BY R. A. REEVE, B.A., M.D.

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(Read in part at the meeting of the Canadian Medical Association, held in Toronto, August, 1876.)

Fifty years ago this part of the domain of medicine was quite uncultivated, and the rankest empiricism prevailed. Indeed, the two chief aids to the study and treatment of aural disease have been given to the profession within the last twenty-five years,—the otoscope or ear-mirror, by Troltsch, in 1855; and the "air-bag" for inflating the tympanum, by Politzer, in 1862. During the past two decades rapid strides have been made in the knowledge of the ear and its diseases, and to-day otology takes honourable rank with the sister department of ophthalmology. To pass in review those points of aural medicine and surgery which are of the most practical importance is the purpose of the present paper. The indirect examination of the ear by the mirror, and the speculum,—a short conical or funnel-shaped tube of metal or hard rubber,—has supplanted the *direct* method by Kramer's bivalve or handled speculum, formerly in vogue, which was, at best, an inefficient and rather painful process. With the ear to be examined turned away from the source of illumination, the speculum gently inserted into the mouth of the meatus and the light reflected from the mirror into it, one can scan at a glance the meatus and drum-head; and can also readily determine the presence or absence of foreign bodies, cerumen, polypi, &c.; congestion, perforation, curvature, &c., of the drum-membrane; and, to a certain extent, the condition of the tympanum. With the mirror attached to the forehead band, and both hands free, one can manipulate forceps in the meatus or cauterize granulations without giving pain, or evacuate pus from the middle ear by incision of drum-head, or remove polypi, &c. In fact, the introduction of the ear-mirror has revolutionized aural surgery, and its use enables one to avoid difficulties that were once very perplexing. It is no longer in order to

prescribe frequent and forcible syringings for the removal of cerumen that is not present, or to blindly grope for foreign bodies which have already escaped from the meatus, or possibly never entered it.

The Politzer apparatus—a large rubber bulb or bag with a rubber tube ending in a nose-piece attached to its nozzle—is very serviceable in diagnosis and prognosis, as well as treatment, to determine the patency of the Eustachian tube, the mobility of the membrana tympani, presence of perforations, &c. It is used as follows: a sip of water is taken, the nose-piece is put into one nostril, and both nostrils are tightly closed; then, as at a given signal, a nod *e.g.*, the patient swallows, the bag is suddenly and forcibly compressed. The air rushes up the Eustachian tubes, distends the middle ears, and causes an outward movement of the drum-heads. This procedure often effects a very marked relief of subjective symptoms and a decided improvement of the hearing. In cases of acute inflammation, after the acute stage has passed, it clears the tube and middle ear of secretions and restores the normal position and mobility of the drum-head, and also by preventing adhesions tends to preserve the functions of the tympanum. The periodic use of the air-bag is indispensable in the insidious progressive deafness (chronic aural catarrh) secondary to naso-pharyngeal catarrh, where the calibre and patency of the Eustachian tube are lessened and its functions otherwise impaired, and the drum-head is becoming stiff and abnormally concave. The Politzer method is no less valuable in the sub-acute and chronic aural catarrh of children, upon whom, moreover, the Eustachian catheter cannot be used. It is also useful in the cleansing of the middle ear prior to applying remedies, by forcing the secretions into the meatus, from which they can be removed by the douche or syringing; and also after instillations of medicated solutions to secure their proper entrance into the tympanum through perforations. In view of the commonness of ear disease and the great utility of the air-bag in its treatment, it is an additional merit that its use requires no special skill. It is now frequently put into the hands of the laity.

Though the Eustachian catheter,—a slender tube of about six inches in length, slightly curved at one end, and preferably of hard rubber, introduced through the nostril—yields the palm to the Politzer method for the convenience and wide range of its application, its great value is fully established, not only as an efficient adjunct of the air-bag, but for the direct treatment of the Eustachian tube and tympanum by vapours, astringents, &c. The tuning-fork is now generally used in diagnosis and prognosis. If the shank of a vibrating tuning-fork be placed on the vertex or forehead, the vibrations are heard most distinctly by the ear whose drum-membrane is thickened, or meatus or Eustachian tube obstructed; and it is not well heard by the healthy ear unless the meatus be closed. In pure nervous deafness (disease of labyrinth) it is not heard under any circumstances. The rhinoscope is, in some cases, a necessary supplement to the other appliances, furnishing the means of deciding, by ocular inspection, the condition of the posterior nares, vault of pharynx, and mouths of Eustachian tubes. The ear-tube is also employed, and is sometimes useful in auscultating the tympanum during its inflation. The examination and record of an ear case are not considered complete unless the hearing power be tested by the watch and voice; the rule being, to note the furthest distance at which they can be distinctly heard by each ear in turn. A very useful appliance is the aural douche, with which the meatus and drum-head (or middle ear) may be irrigated by a continuous stream of warm water, pure or medicated. It acts on the principle of the siphon, and can be extemporized by using a pitcher, basin, &c., as the reservoir into which is placed one end of a long piece of narrow vulcanized tubing, leaded or weighted; the other end, armed with a small blunt nozzle of bone, hard rubber, &c., being placed in the mouth of the meatus. A receptacle is placed closely under the auricle, and on raising the vessel a little above the head a gentle stream enters the ear. A gallon or more of liquid may be allowed to flow at one sitting, and this may be repeated at short intervals or *p. r. n.* Its use is generally attended by marked and speedy relief of pain, more especially in the so-called

ear-ache of children. For the thorough cleansing of the ear, the syringe is preferable to the douche, but unless the former be carefully used some distress and, at times, annoying vertigo are apt to be caused by the forcible entry of fluid through perforations into the tympanum. It is not unworthy of notice that pure warm water should, with few exceptions, be used, and the nozzle of the syringe should always be rather blunt-pointed, so as to avoid the risk of injuring the sensitive meatus; and the old glass or metal article should be discarded for the more handy bulbous form. A large hard-rubber or metal piston syringe is sometimes required for the removal of impacted wax; and a little device, that is sometimes essential to success (also in the use of the mirror), is the straightening of the meatus by traction upon the auricle. The value of *early* local depletion by leeching is now widely recognized, in aborting inflammation, subduing pain, &c.; and the congestion of the meatus and tympanum is most effectually relieved by applying the leeches just in front of, or within, the meatus.

As the physiological and pathological anatomy of the ear became better known, the old-time nomenclature of its diseases gave way to a simpler and more rational classification; which, somewhat abridged, is as follows:—

I. AFFECTIONS OF THE EXTERNAL EAR.*—Diffuse inflammation (*otitis externa*); circumscribed inflammation (*furuncle*); inspissated or impacted cerumen; *eczema*; polypi; vegetable fungous growths (*otitis parasitica*); foreign bodies.

II. AFFECTIONS OF THE MIDDLE EAR OR TYMPANUM.—Acute aural catarrh (*otitis media catarrhalis acuta*); chronic aural catarrh (*otitis media catarrhalis chronica*); acute suppurative inflammation (*otitis media purulenta acuta*); chronic suppurative inflammation (*otitis media purulenta chronica*)—the so-called “otorrhœa,”—with its complications or sequelæ, viz: polypi, exostoses, mastoid disease, curies and necrosis, paralysis, pyæmia, and cerebral abscess.

III. AFFECTIONS OF THE INTERNAL EAR OR LABYRINTH—*Otitis Interna*.—Hæmorrhagic, serous, plastic, and purulent *otitis interna*.

Affections of the external auditory meatus may generally be readily diagnosed with

* The external ear includes the auricle and external auditory meatus; the middle ear—the *cazum tympani* with its membrane, the mastoid cells, and eustachian tube; the internal ear—the vestibule, semi-circular canals, cochlea, and auditory nerve.

the mirror. They are of less moment and of much less frequent occurrence than those of the tympanum, and are much more amenable to treatment. The meatus being mainly a bony canal, lined with periosteum and integument, richly supplied with nerves and vessels, and in close relation to important parts, the special indication is to abort inflammation by prompt and free local depletion, the use of the douche, scarification of the meatus; early incision of furuncles; sudorifics, anodynes, &c.

The accumulated experience of the profession conclusively shows that the safest and best mode of removing foreign bodies, inspissated cerumen, &c., from the meatus is by syringing with warm water—persistent and prolonged, if necessary, and with the affected side dependent;—and that forceps, probes, &c., should be used with great care, and generally only as a last resort, and then under illumination by the mirror.

A somewhat interesting feature is the recent recognition within the auditory meatus, of vegetable fungus or mould (*aspergillus*, commonly): tough, whitish or blackish flakes, so closely adherent to the meatus and *membrana tympani* as to necessitate the use of the forceps for their removal, together with subjective sensations of pain, tinnitus, and vertigo in an ear free from suppuration, are suspicious indications. The microscope decides the question. A cure is effected by the frequent removal of the fungus and the instillation of such parasitocides as alcohol, acid carbolie, calcium hypochlorite, hydrargyri perchloride, &c.

That much misconception has prevailed in regard to the pathology of disease of the middle ear, is shown by the established use of such misnomers as “ear-ache” and “otorrhœa.” Nowadays, the one is properly regarded as merely a graphic expression for a prominent symptom of acute inflammation, and the other but the sign of a more or less serious morbid process. The intimate relation between the naso-pharynx and the tympanum has fortunately become recognized, and it is no longer thought doubtful that pharyngitis is the most prolific source of ear disease. Tubal catarrh, catarrh of middle ear and hypertrophy and sclerosis of its lining membrane, rigidity of

the ossicles and drum-head, and a sunken or collapsed state of the latter from external pressure—owing to non-supply of air to the tympanum from partial closure of the Eustachian tube,—subjective noises (tinnitus); and deafness, frequently profound: these are the train of results (chronic aural catarrh) that sooner or later follow a recurrent or confirmed nasopharyngitis; as surely, indeed, as does “abscess” of the middle ear occur in the angina of scarlet fever or measles. Hence the systematic treatment of the nares, pharynx, and Eustachian tubes by the application of astringents, caustics, &c., by nebulizers, insufflators, syringes, gargles, and catheters, has become an integral part of the therapeutics of aural surgery. And it is to be hoped that ere long, through the medium of the profession, the laity will learn that “throat deafness” is none the less certain and serious in its effects because, as a rule, of an insidious and painless character; and that the “stupidity,” thick speech, snuffing, and excessive expectoration, of multitudes of naturally bright children are due to a common cause, a neglected naso-pharyngitis, with resulting tubal and aural catarrh, deafness and “dullness,” and that by timely attention these sources of parental grief and annoyance may generally be made to disappear simultaneously. It is, perhaps, not out of place here to remark that the indiscriminate and self-appointed use of the nasal douche by the myriad sufferers from “catarrh” is injuring many ears, through the inflammation excited by the forcible entry of fluid into the tympanum, caused by the act of swallowing. An intermittent stream of moderate force directed into the open nostril from an enema syringe, or the use of a posterior nares syringe (of which Warner’s is about the best), would be much safer and equally effectual.

The increased responsibility devolved upon the family physician by the advances in otology deserves notice. He is generally in a position to detect aural diseases in their incipient stages, when they are especially amenable to treatment, and long before the integrity of the organ is beyond recovery. Even the casual reference to the presence of subjective noises (tinnitus) should arouse his suspicions, for tinnitus indicates irritation of, or pressure upon, the

labyrinth, and is a common symptom of aural catarrh, often an early one. If, again, in a case of scarlet fever, *e. g.*, it is found that in spite of leeching (if such can be borne), douching, use of air-bag, and treatment of angina, &c., the aural complication is rapidly running into the suppurative form, then a timely puncture or incision of the drum-head (as by a cataract needle with long shank) will evacuate the pus accumulating in the middle ear,—which generally finds vent by spontaneous perforation, ulceration, and loss of the membrane; and following this up by frequent cleansing of the ear by Valsalva’s or Politzer’s method and douching, and the instillation of astringent solutions, as, *e. g.*, sol. zinci sulph. 1 to 5 grs. ad ζ i., *ter die*, and in a few days, if need be, by sol. argent nit. 20 to 80 grs. ad ζ i., daily,—the middle ear can be restored to a healthy state, the perforation becoming closed and the hearing recovered, in from two to six weeks. Whereas, when such cases are neglected and allowed to become chronic, we can never predict—to quote the late Sir William Wilde—“when, where, or how, they will end.” They will, most probably, eventuate at least in loss of part of the drum-head, and adhesion, in whole or part, of the remnant to the promontory, &c., and in permanent impairment of the hearing. It is to be hoped that the laity will soon learn the impropriety of leaving “running” ears to dame Nature for their healing, for the dangers of a do-nothing course are amply attested by the innumerable instances in which, in constitutions vigorous in spite of the drain upon them, the hidden spring continues its foul discharge for ten, twenty, thirty years, deafness supervening, with its attendant disabilities, or possibly premature death from secondary cerebral abscess, &c.

What are the pathological conditions and import of the so-called Otorrhœa (*otitis media purulenta*)? We must premise that the middle ear is, in most cases, the seat of the disease—not the meatus, as is commonly thought. Consider the anatomy and relations of the tympanum: the *cavum tympani* is lined by a modified mucous membrane continuous with that of the Eustachian tube and mastoid cells, which is virtually a periosteum; it is traversed by the facial nerve and contains the delicate ossicles

and tympanic muscles; posteriorly are the mastoid cells, anteriorly the Eustachian tube; the brain lies on its roof,—which, by the way, is often so thin as to be a mere skylight, with the dura mater for a curtain,—its inner wall is in contact with the labyrinth and the internal carotid artery, and its floor rests upon the arch formed for the internal jugular, while the mastoid cells are in close proximity to the lateral sinus; and the bony walls of both the tympanum and cells are traversed by blood-vessels, which form ready channels for transmitting purulent infection to the jugular vein and lateral sinus, &c.

The various morbid conditions to be found are as follows:—The drum-head partly or wholly lost by ulceration, with caries or necrosis of one or more ossicles or ankylosis; the mucous membrane of the tympanum vascular and granular or studded with polypoid granulations; bunches of granulations due to and hiding a localized necrosis or caries; the meatus plugged by a polypus, around which is oozing thin fetid pus the more solid part of which is retained in the tympanum as a putrid, cheesy mass; necrosis of some part of the bony wall and sinuses leading to diseased cells; sub-periosteal thickening of the external meatus (exostosis); and in some cases periostitis of the mastoid, caries, necrosis, fistula, &c. Implication of the mastoid is a grave and not uncommon complication of disease of the middle ear: pain, tenderness, and swelling, at once indicate external periostitis, while frequent and painful exacerbations occurring in the course of a suppuration of long standing, or deep-seated pain which does not succumb to leeching, &c., point to internal periostitis, caries, &c.

The significance of *otitis media purulenta*, in one aspect, is shown in the record* of seventy-five cases of cerebral abscess, by Drs. Gull and Sutton, of which twenty-five, or about thirty-three per cent., were directly traceable to chronic suppurative processes in the middle ear—a higher percentage than from any other cause. Roosa, in his valuable work on the ear, tabulates forty cases in which death ensued from secondary meningitis, pyæmia, and cerebral abscess, caused by ear disease. But no tables can convey the disability resulting from the loss of hearing—a dead weight in the race of life—with its reflex effects on mental development and material success.

(To be continued.)

* Reynolds's System of Medicine

Formularies.

TINCTURE OF PHOSPHORUS.—Dr. Emerson, N.Y.

Phosphorus	6 centigrammes.
Absolute Alcohol	10 grammes.
Glycerine	24 “
Alcohol (at 90°)	4 “
Essence of Peppermint	2 “

Dissolve the phosphorus in the absolute alcohol and glycerine, and flavour with the alcohol and essence of mint. Solution is complete, and the liquid remains perfectly clear. This preparation is employed in two-gramme doses every three or four hours, in the treatment of neuralgias.—*Trans. Am. Neurol. Assoc.*

RUSSIAN DROPS.—Niemeyer.

Æthereal Tinct of Valerian	8 grammes.
Wine of Ipecac	4 “
Laudanum (Sydenham)	1 gr. 30 centigs.
Essence of Peppermint	5 drops. Mix.

This remedy is recommended to allay the obstinate vomiting of cholera. Ice internally, with Seltzer water, and Bordeaux or Champagne wine.—*L'Union Medicale.*

SEDATIVE CLYSTER.—Aran.

Chloroform	1 to 2 grammes.
Pulverized Gum Arabic	8 grammes.
Yolk of Egg	No. 1.
Water	125 grammes.

An enema, designed to allay the painful element of various affections, such as hepatic and nephritic colic, cystitis, etc. The water may be replaced by an infusion of chamomile, or a decoction of poppies.—*L'Union Medicale.*

ANTIRHEUMATIC DRAUGHT.—N. Gueneau de Mussey.

Salicylic Acid	5 grammes.
Bicarbonate of Soda	3 “
Julep gommeux	120 “

Make a draught, of which a tablespoonful will be given every three hours in acute articular rheumatism. The pains usually become less acute when the patient has taken two or three doses.—*L'Union Medicale.*

OINTMENT FOR ECZEMA.—O. Will.

Salicylic Acid	2 to 4 grammes.
Axungia	30 grammes. Mix.

This ointment is recommended in the eczematous affections of the head and face, and has been very successful in a large number of cases.—*L'Union Medicale.*

Translations.

THE DANGER OF ACTIVE REMEDIES IN CASES OF RENAL LESION.

It is now rather a long time since this curious symptom—viz: the impermeability of the kidney to odours, in albuminuria was remarked; thus it is that in these patients the absorption of turpentine or of asparagus does not give rise to the usual characteristic odour in the urine. Dr. Beauvais had even pointed out the fact, as sufficing, for himself, to establish the existence of Bright's disease. When this defect of elimination is produced by active remedies, as opium, belladonna, etc., serious accidents may occur, hence the conclusion that these substances become poisons, even in small doses, in cases of renal alteration. M. Chauvet has fully demonstrated this fact in his thesis, by the observations which he has collected, and has shown at the same time by experiments that the mode of elimination of certain remedies is greatly modified by kidney disease. Take the sulphate of quinine, for example, its elimination by the kidney in healthy subjects commences twenty-five minutes after its ingestion, and lasts three or four hours; moreover, there is found in the urine more than a quarter of the amount ingested. In persons whose kidneys are affected, on the contrary, the sulphate of quinine delays a much longer time in showing itself in the urine; its elimination may continue for eight hours, and the total quantity eliminated varies between one-tenth and one-fiftieth of what was taken. These experiments were made upon a large number of different subjects.

The bromide of potassium, whose elimination is completed twenty hours after withholding the remedy in a healthy subject, lasts thirty or forty days in one whose kidneys are diseased.

Analogous results have been observed with the iodide of potassium, whose elimination otherwise is much more rapid.

M. Chauvet reports also two cases in which rapid and most serious mercurial intoxication occurred, produced by the absorption of Van Swieten's liquid in very moderate doses in the first case, and by a cauterization with the acid

nitrate of mercury in the second. In these two cases Bright's disease was found at the autopsy; the kidneys, acting only very imperfectly, had not been able to sufficiently eliminate the mercury, hence the fatal results.

English authors, who have well observed this susceptibility in albuminuric patients, advise the disuse of mercurials in patients affected with Bright's disease, salivation occurring more rapidly in them than in the normal state.

The author again cites two other observations, in which accidents occurred from small doses of opium and atropine. In the former death resulted, in the latter—subsequent to an instillation of atropine for an iritis—symptoms of atropia poisoning occurred; the patient dying later, tubercular kidneys were discovered.

From the totality of these facts it results then that diseases of the kidneys render toxic, even when administered in small doses, certain active remedies, and that before ordering these it would be prudent to examine carefully into the state of the urinary secretions. Moreover, an important fact from a medico-legal point of view, in an examination relative to poisoning by the alkaloids and the medicines called active, one ought rigorously to note the condition of the kidneys, since, as has been seen elsewhere in an analogous case, a medicinal dose may cause death under particular circumstances.—*Journal de Medecine et de Chirurgie Pratiques.*

ON THE ABSORPTION OF MEDICINES THROUGH THE MUCOUS MEMBRANE OF THE VAGINA.

Dr. E. W. Hombuyer, of Franzensbad, has made several experiments to prove to what extent medicines were taken up through the mucous membrane of the vagina. The experiments were made in the following way.—Two tampons of clean cotton-wool, soaked in the solution of the substance, were introduced into the vagina through Ferguson's Speculum, after which two dry tampons were afterwards introduced. The tampons were allowed to remain for twenty-four hours. The urine examined for the medicinal substance was drawn with the catheter, so that it could not possibly be mixed with the substance in its passage out.

The persons on whom the experiments were tried were women from twenty to thirty years of age, in whom the vaginal mucous membrane was intact. The trials made in Prof. Peck's clinic gave the following results: iodide of potassium, used in a fifteen per cent. solution, was found in the urine two hours after its application, and was found in the same fluid twenty-four hours after the tampons had been removed. Ferrocyanide of potassium, in a five per cent. solution, was found in the urine three hours after application, and twenty-four hours after removal. Ferricyanide of potassium was used, and could be traced in the urine as ferrocyanide. Salicylic acid, dissolved with sodium phosphate, was found in urine three hours after application. Bromide of potassium, in a six-per-cent. solution, was found in urine three hours after application.

Iron was tried, in form of lactate and citrate, but was not found in the urine. It could not, however, be found in any quantity after the medicine had been taken into the stomach. Iron is found in the ash of normal urine, but it never appears to be present in the form of salt in solution. Lithium, in the form of chloride, was used, and was found in the urine two hours after its introduction. These experiments prove that medicine can be taken up through the vaginal mucous membrane. This fact may be of use to those engaged in gynecological practice, and also in cases when it is desirable not to give it by the stomach.—*Rundschau*.

POISONING BY SALICYLIC ACID.

A case of poisoning by salicylic acid has been reported through the *Central Medical Times*, as having occurred at Przegląd-Tekarski, in Posen. It has also been discussed in the Medical Society of Posen.

In February, 1876, a peasant was seized with acute rheumatism, which manifested itself in the left knee and ankle joints. The physician, in order to lessen the severe pain, gave him a hypodermic injection of one-sixth of a grain of morphia, and ordered for him six powders of salicylic acid,—one to be given every hour,—each powder containing about 13 grs. of the acid. Immediately after the first pow-

der, the patient began to perspire profusely, and continued constantly to increase perspiring. The patient's strength diminished so rapidly that his wife hesitated to give the fourth powder. The patient insisted on taking it, however, and immediately afterwards was seized with headache and vomiting, which continued during the whole night. He then became unconscious and groaned loudly. This state of unconsciousness only left him for a moment, when he turned to the doctor crying, "My head." All means used for his resuscitation were useless, and the patient died forty hours after he had taken the first powder. No *post-mortem* was made. It is not at all possible that this was a case of inflammation of the brain in connection with the rheumatism. All the symptoms indicated poisoning. By later investigations it was found that the salicylic acid used was old, and had undergone chemical change. This was evidenced even by the taste and smell. Stricker advises that the salicylic acid should always be examined as to its purity, and that the crystalline form alone should be used. If this rule had been followed in the above case, it is more than probable that it would have terminated favourably.—*Rundschau*

TREATMENT OF CHRONIC PSORIASIS.

Dr. Castells calculates that he has obtained forty-five cures of chronic external psoriasis by the following treatment.—He directs the patient to take a bath—with the view of causing the scales to drop off,—or of placing them in such a condition that they may be readily removed by the nails alone: once the skin is free, he touches all the red spots which have been covered by the scales with acetic acid; this quickly produces a marked sensation of heat, which only lasts about half-an-hour. Sometimes a single application suffices to obtain a cure; but at others it is necessary to make five, six, or seven, allowing at least twenty-four hours to elapse between each application, since by neglecting to do so we run the risk of producing a severe inflammation. In the larger number of the cures related by Dr. Castells, other remedies had been employed without any beneficial result.—*Revista Beunos Ayres*.

From Lyon Medical.

INDICATIONS FOR OPIUM AND FOR DIGITALIS
IN ASYSTOLISM IN VARIOUS DISEASES
OF THE HEART.

Two patients in M. Gubler's ward presented, —the one, a good example of the efficacy of opium in asystolism in certain diseases of the heart, especially when the lesion is situated in the aortic orifice; and the other a specimen of the cases in which opium would rather be pernicious, whilst the preparations of digitalis have been found to answer very well. (We omit the narration of the cases, being merely typical examples—the one of double aortic affection, the other mitral regurgitant.) The conclusion deduced is: "Thus opium would rather be pernicious in mitral affections of the heart, whilst it is often useful in disease of the aortic orifice. Dr. Huchard, who was the first to publish these facts in the *Journal de Therapeutique*, has invented a rather ingenious theory to explain them. According to him, opium produces congestion of the nervous centres, and digitalis, on the contrary, produces a local anæmia of them. But asystolism may occur in two opposite ways: Either from defects of nervous incitation of the preumogastrics, the result of an insufficient supply of the nutritive and exciting fluid to the encephalon, or, on the contrary, from what the ancients would have called *oppressio virium*. In aortic lesion, whether consisting in stenosis, or in insufficiency, the arterial circulation becomes enfeebled, and the various organs, at the same time, receive less red blood: this then is the case for the employment of opium, which increases the supply of blood to the brain."

In mitral lesions, on the other hand, it is the return of venous blood which is interfered with; the viscera, and notably the encephalon, are full of it. Digitalis ought to succeed.—*Gazette des Hospitaux.*

In the *Revue de Therapeutique Medico-Chirurgicale* mention is made of a death having occurred from attempts to dilate a narrowed os uteri by means of sponge tents. Peritoneal effusion, and an abscess containing an ounce and a-half of pus beside the neck of the uterus, were found *post-mortem*.

TREATMENT OF PRURITUS VULVÆ.

Dr. Castellir has employed with success in this very troublesome affection, whether the woman be pregnant or not, the following treatment.—

1st. Tepid lotions of an infusion of mallows.
2nd. The application, three or four times a day, of an ointment composed of

Calomel 1 to 2 drachms.
Camphor 1 scruple.
Starch, in an impalpable
powder $\frac{1}{2}$ drachm.
Sweet Lard 1 ounce.

Sometimes he adds 10 or 12 drops of laudanum.—*Revista de Ciencias Medicas.*

ANTI-ASTHMATICAL CIGARETTES.

Belladonna Leaves	5 grammes.
Stramonium "	5 "
Digitalis "	5 "
Sage "	5 "
Tincture of Benzoin	40 "
Nitrate of Potassium	75 "
Water	1000 "

A decoction is made of all the leaves. Filter and add the tincture of benzoin and nitrate of potassium. Into this liquid separately are immersed sheets of blotting paper. At the end of twenty-four hours these sheets are dried and cut into squares about four by three, which are rolled into cigarettes.—*N. G.*, in *L'Union Medicale*.

EXAMINATION OF URINE FOR BILE.

BY OTTOMAR ROSENBACH, M.D.

On account of the uncertainty and the short duration of the reaction introduced by Gmelin's as a test for bile, the author has introduced a new process, which is exceedingly useful for demonstration and is altogether a most satisfactory test. The urine containing bile is first filtered through clean white filtering paper, the latter will remain coloured intensely brown. The filtering paper is then taken and a drop of concentrated slightly fuming nitric acid is applied to its inner surface. The part touched by the acid is first yellow, then yellowish-red with a border of violet, then on the extreme periphery an intensely blue ring shows itself, finally the whole surface becomes emerald green.

The test ought to be made before the filtering paper becomes quite dry, as the colours will be exhibited more intensely.

The different colours as described remain sometimes for hours, so that they can be readily demonstrated to a class. The ordinary colouring matter of the urine will give no such reaction as that described.

From *Union Medicale du Nord-Est.*

SUBCUTANEOUS INJECTION OF DEFIBRINATED BLOOD—CURE.

BY DR. SCHMELTZ DE SCHLE-TADT.

This observation clinically demonstrates that Karst (of Kreuznach) was not deceived in prophesying, from his experiments on rabbits, that subcutaneous injections of blood would (one day) be made in cases of profound anæmia in man. Schmeltz operated upon a man who had arrived at a state of extreme weakness, with hectic fever and alarming thoracic symptoms. He introduced beneath the skin forty grammes of defibrinated human blood, divided into eight injections of five grammes each. The blood-swellings were absorbed at the end of two days. The patient recovered strength with considerable rapidity. This operation is certainly harmless, and it is probable that it will be able to render essential services; true, it is not known what quantity of hæmoglobuline is absorbed, and what quantity remains in the tissues at the point of injection. Later experiments will doubtless show this.—*Gaz. Med. de Strasbourg.*

From *Gazette Medicale de Strasbourg.*

The same author (Dr. Schmeltz) records in the *Gaz. Med. de Strasbourg*, for June, a case of pelvic peritonitis, followed by obstinate vomiting and collapse, cured by subcutaneous injections of sulphuric ether. After describing the case up to the occurrence of collapse he goes on to say, "In spite of the means usually employed in such cases, we were totally unable to set up reaction; this condition lasted the whole of the following night. The next morning all consciousness was lost, and death seemed imminent. I then made a first hypodermic injection of fifteen drops of sulphuric ether, according to the

directions of M. Verneuil. The prick was not felt, and yet in half a minute after the patient began to stir and to utter a faint cry. An hour afterwards another injection also of fifteen drops was given, followed in about a minute by another and a little stronger cry. Towards evening our moribund patient revived." The case subsequently did uninterruptedly well.

Apropos of this case, Dr. Schmeltz observes: "I believe that injections of ether are harmless; in fact an Englishman, Dr. Macan, has lately injected eight grammes of it at once, and shortly after four grammes more (acetic ether), a thing which I would be altogether inclined to do in urgent cases, such as after *post-partum* hæmorrhages."

At the *Societe de Medecine de Strasbourg* the following remarks were made upon the two foregoing cases:

"Prof. Boeckel says he regards the use of hypodermic injections of defibrinated blood as rational in cases in which transfusion appears to be indicated. It is known, in fact, that blood globules injected directly into the circulatory current are there for the most part rapidly destroyed and eliminated from the system. It is not then to this essential part of the blood exclusively that we must refer the results obtained by transfusion, and we may admit that the elements of which the serum is composed—elements eminently fitted for absorption—play some part in the useful effects which have been observed in these cases.

"As for hypodermic injections of ether, he has used them for some time, without having always obtained very marked results from them; only, instead of sulphuric ether, he employs nitric ether, which, on account of its slighter volatility, is more convenient to handle. M. Herrenschmidt has recourse to subcutaneous injections of Hoffman's Anodyne (in doses of one-half to one gramme each) in severe collapses, when the administration of stimulant medicines is no longer possible, or is useless. These injections are usually followed by a certain return of the natural powers, but these effects have always been very transient."

THE CANADIAN
Journal of Medical Science,

A Monthly Journal of British and Foreign Medical
 Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending their addresses to the corresponding editor.*

TORONTO, SEPTEMBER, 1877.

CANADA MEDICAL ASSOCIATION.

NEW BUILDING OF THE WINDSOR HOTEL,

WEDNESDAY, 12th of September, 10 a.m.

After the President's Address the following Papers will be read:—Crime and Insanity, by Dr. J. Workman, Toronto; Ovariectomy, by Dr. Rosebrugh, Hamilton; Vital Statistics, by Dr. A. B. Larocque, Montreal; Pernicious Anæmia, by Drs. Osler and Bell, Montreal; Addison's Disease, by Dr. G. Ross, Montreal; On large doses of acetate of lead in *post-partum* and other hæmorrhages, by Dr. J. Workman, Toronto; Gastrotomy and Ovariectomy, by Dr. E. Robillard, Montreal; Embolism of Central Artery of Retina, by Dr. Buller, Montreal; Excision of Knee, by Dr. Fenwick, Montreal; Two Cases of Tricuspid Stenosis, by Dr. Howard, Montreal; (1) Optical Defects, (2) Nasal Polypus, by Dr. R. A. Reeve, Toronto; Cause and Development of Epithelioma of the Eye, by Dr. A. Alt, Toronto; The Various Forms of Wounds and their Appropriate Treatment, by Dr. W. Canniff, Toronto. The Economic Aspects of Public Sanitation, by Dr. Playter, Toronto. Reports will be read by the Chairmen of the following Committees: Surgery, Dr. Richardson, Toronto; Obstetrics, Dr. Ross, Toronto; Medicine, Dr. Ross, Montreal; Medical Literature, Dr. Howard, Montreal; Climatology, Dr. Marsden, Quebec; Therapeutics, New Remedies, etc., Dr. Fulton, Toronto; Necrology, Dr. Osler, Montreal.

Gentlemen intending to read Papers will oblige by at once notifying the General Secretary, mentioning the titles thereof, in order that they may be added to this list.

A. H. DAVID, M.D., Ed.,

Gen. Sec., Canada Medical Association.

"O! would some power the giftie gie us,
 To see ourselves as others see us."

Our contemporary has an article in his last issue entitled "Putting on the Cap," which is about the richest thing in journalism we have ever met with, and we feel sorely tempted to place the whole thing before our readers that they may see how the cap does fit.

It appears that our banter in reference to "boy professors" sent the probe so deep that our "cotem." responds to the touch, loses his temper, and very unadvisedly acknowledges the whole corn, and then in the flurry of excitement makes himself ridiculous by trying to put his cap on our head.

It is very evident to all who are not wilfully blind, that while the cap fits our cotem. to a T, the shoe pinches him rather severely.

DEATH OF DR. DEWAR.—We regret to have to record the death of Dr. Dewar of Port Hope, who has long been known as a prominent and hard-working member of the Ontario Medical Council. As a practitioner, he occupied a high position in the estimation of both the profession and the public; and as a member of the Medical Council, he was ever most energetic in trying to raise the standard of medical education in Ontario. His loss will be severely felt.

DIALYSED IRON.—Wyeth's dialysed iron is a preparation largely used in the States and abroad in cases where iron is indicated. By reference to our advertising columns full information will be obtained regarding this very valuable addition to the *Materia Medica*. Messrs. Perry Davis & Son and Lawrence, of Montreal, are agents for Canada, and will send a bottle to any physician sending his address.

VICTORIA MEDICAL FACULTY.—We have it on very good authority that negotiations have been going on for some time between the Montreal School of Medicine and Surgery (now affiliated with Victoria College, Cobourg) and the University of Laval, Quebec, with a view of the former becoming the Montreal Medical Faculty of the latter. It is believed that the negotiations will shortly be brought to a satisfactory termination.—*Canada Medical Record.*

AMERICAN PHARMACEUTICAL ASSOCIATION.—The Twenty-Sixth Annual Meeting will be held in Toronto, on September 4th, 5th, 6th and 7th, 1877. Many papers of interest will be read. Messrs. Seabury and Johnson, of New York, Lazell Marsh and Gardiner, McKesson and Robbins, F. A. Reichardt, Powers and Weightman, and other prominent pharmacists from the States will add to the attractions of the meeting by an exhibit, in their special lines, of goods. Mr. H. J. Rose, of Toronto, the Local Secretary, will be happy to give any information to those interested.

We have received a note from Dr. Geikie denying the existence of any antagonism between himself and Dr. Hodder, in reference to his election to the Medical Council. We are sorry if common report has so libelled him, but we gave it as we heard it.

JOURNALISTIC.—The *Canada Journal of Dental Science* has been revived. W. G. Beers, L.D.S., is the editor and proprietor. It is published quarterly at \$1 per annum, and it is intended to issue it monthly next year if properly supported. We wish it all success.

CANADA MEDICAL ASSOCIATION.—Arrangements have been made with the Grand Trunk and Great Western Railroads and the Steamboat lines for return tickets at reduced rates. Members wishing to go to Montreal by boat and return by train will have to pay the full fare.

W. F. EVANS & Co.—JEWELLERY, WATCHES.—We wish to call attention to the advertisement of W. F. Evans and Co., of 95 and 97 South Clark St., Chicago. Their *Romaine Gold* wares, both from their price and quality, are sure to command a large sale here and elsewhere. For fuller information see advertisement.

"TWO BLACK CROWS."—Two medical journals, each published by a member of a Medical School; one is claimed to be "the independent organ of the whole profession," the other is said to be "nothing but a School organ." Can our readers tell us which is which?

Mr. Simon is to have a testimonial: it is to take the form of a marble bust, to be presented to the College of Surgeons.

John Wishart, M.B., has been admitted a member of the Royal College of Surgeons, England.

The death of Professor Nathan R. Smith, of Baltimore, is announced. He is well known as the inventor of the Anterior Suspending Splint for fractures of the leg.

The eighth Annual Meeting of the American Association for the Cure of Inebriates will be held at Chicago, Illinois, September 12th, 1877. Important papers will be read and business transacted.

Dr. Bathurst Woodman, one of the staff of the London Hospital, and author of one of the best works on medical jurisprudence, died last month. He was yet but a young man.

Edmund St. G. Baldwin has been admitted a Licentiate of the Royal College of Surgeons, Edinburgh.

BOOK NOTICES.

Transactions of the Eleventh Session of the Medical Association of the State of Missouri, 1877.

Analysis of Seven Hundred and Seventy-four Cases of Skin Diseases, treated at the Demilt Dispensary in 1876, with Cases and Remarks on Treatment. By L. DUNCAN BULKLEY, A.M., M.D.

University of Bishop's College Seventh Annual Announcement of the Faculty of Medicine, Montreal; Session, 1877-78.

Case of Aneurism of the Hepatic Artery, with Multiple Abscess of the Liver. By GEORGE ROSS, A.M., M.D., and WILLIAM OSLER, M.D., L.R.C.P., London. Read before the Medico-Chirurgical Society of Montreal.

A New Method for the Quantitative Determination of Sugar in the Blood. By F. W. PAVY, M.D., F.R.S.

On the Physiology of Sugar in Relation to the Blood. By F. W. PAVY, M.D., F.R.S. Communicated to the Royal Society.

A Simple Mode of Cleansing the Nasal and Pharyngo-Nasal Passages. By THOMAS F. RUMBOLD, M.D., St. Louis, U.S.

Removal of Hardened Secretions from the Nasal Passages. By THOS. F. RUMBOLD, M.D., St. Louis, U.S.

Fourth Annual Report of the Managers of the State Inebriate Asylum, Binghampton, New York, 1876.

Births, Marriages, and Deaths.

On the 14th inst., at the residence of the bride's brother, by the Rev. E. H. Dewart, assisted by the Rev. J. C. Gourley, of Mount Vernon, Indiana, R. S. Moore, M.D., of Mount Vernon, Indiana, to Bessie H., youngest and only surviving daughter of the late Richard Williams, Esq., of this city.

On the 31st inst., at St. Mark's church, Niagara, by the Very Reverend Archdeacon McMurray, Watts S. Lansing, son of General Lansing, to Agnes Maud, daughter of T. H. Watt, M.D., all of Niagara.

In this city, on the 3rd inst., John Hostetter, M.D., M.R.C.S., England, aged 44 years and 6 months.

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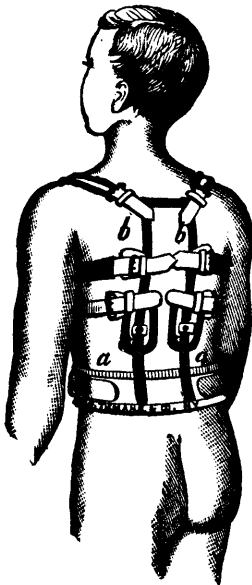
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One Gent's Watch Chain, retail price.....	\$1 00
One pair Engraved Sleeve Buttons, retail price...	75
One Stone-Set Scarf Pin, " " "	75
One set (3) Spiral Shirt Studs, " " "	75
One improved shape Collar Button, " " "	50
One heavy plain Wedding Ring, " " "	1 25
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- One heavy band Engagement Ring.
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- One Ladies' Long Guard or Neck Chain.
- One engraved Miniature Locket for the above.
- One Gent's Heavy Link Watch Chain.
- One Lake George Diamond Stud.

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- One Ladies' Neck Chain and Charm.
- One Ladies' Heavy Guard Chain for Watch.
- One set Pin and Ear Rings, Amethyst.
- One extra fine Miniature Locket.
- One Cameo Seal Ring.
- One very heavy Wedding or Engagement Ring.
- One Gent's heavy Watch Chain with Charm.
- One pair Pearl Inlaid Sleeve Buttons.
- One Lake George Cluster Pin.
- One pair (2) heavy band Bracelets.

The retail price of the articles in each sample lot amounts to exactly ten times the price we ask for the lot; for example, our \$1.00 lot retails for \$10.00; our \$5.00 for \$50.00.

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To any one sending us an order for the above lots by express to the amount of \$15.00, we will send FREE one Solid Gold Romaine Hunting-Case Watch, Gents' or Ladies' size, warranted to keep perfect time and look equally as well as a \$100.00 gold watch. By mail post-paid, \$15.50. This is our BEST OFFER TO AGENTS, and is worth a trial, as the watch alone will sell or trade readily for from \$20.00 to \$50.00. Gents' or Ladies' Watch alone, \$7.00 or \$8.00, with a heavy Gent's Gold Pattern Vest Chain and Charm, or Ladies' Opera Chain with slide and tassel.

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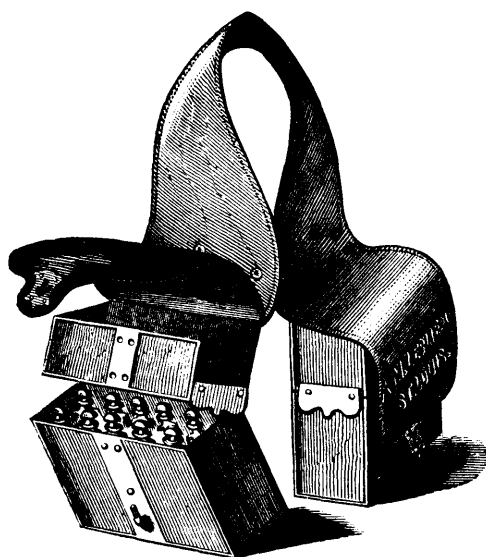
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- One extra cut Cameo Seal Ring.
- One Arizona Solitaire Stud.
- One set Amethyst or Topaz Pin and Ear Drops.
- One Ladies' Chemise Button.
- One Plain Ring, stamped 18 K.

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- One Ladies' Opera Chain, with slide and tassel (retail price \$5.00.)
- One Gent's heavy Watch Chain, with Curb charm (retail price, \$5.00).
- One Ladies' heavy long Neck Chain.
- One elegant Chased Miniature Locket for above.
- One set Cameo Medallion Pin and Ear Drops.
- One pair (2) heavy Chased Band Bracelets.
- One Gent's Solitaire Diamond Stud.
- One Gent's Cluster Diamond Pin.
- One pair Amethyst or Onyx Sleeve Buttons.
- One set (3) Studs to match the above.
- One elegant heavy set Cameo Seal Ring.
- One Massive Band or Wedding Ring.
- One new "patent" Collar Button.
- One Ladies' Chemise Button.
- One Amethyst or Topaz Ring, (extra finish).



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CITY OF MONTREAL,

ON

Wednesday, 12th Sept., 1877.

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General Secretary,
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MONTREAL, August 1st, 1877.

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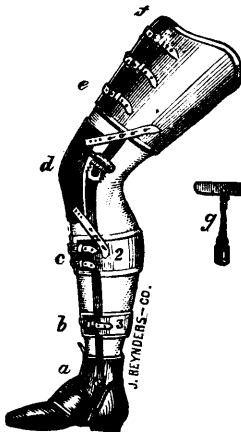
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Total quantity of soluble salts, 20-002 grains, consisting of	
Chloride of Sodium	0-179 grains.
Sulphate of Soda	1-213 "
Bicarbonate of Lime	10-725 "
Bicarbonate of Magnesia	6-875 "
Aluminium	0-225 "
Silica	0-723 "
Iron	a trace.

Toronto General Hospital, Nov. 4, 1875

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