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*A Monthly Journal of Medical and Surgical Science,
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(Index next page.)

Vol. XIV }
No. 6.

TORONTO, FEBRUARY, 1882.

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In the various forms of Dyspepsia, resulting in impoverished blood and deprived nutrition, in convalescing from the Zymotic Fevers (Typhus, Typhoid, Diphtheria, Small-pox, Scarletina, Measles), in nervous prostration from mental and physical exertion, dissipation and vicious habits, in chlorotic anaemic women, and in the strumous diathesis in adults and children, it is a combination of great efficacy and reliability, and being very acceptable to the most fastidious, it may be taken for an indefinite period without becoming repugnant to the patient. When Strychnine is indicated the official solution of the Pharmacopœia may be added, each fluid drachm making the 64th of a grain to a half fluid ounce of the Elixir—a valuable combination in dyspepsia with constipation and headaches. This compound is prepared with great care, and will be maintained of standard purity and strength.

DOSE.—For an adult, one tablespoonful three times a day, after eating; from seven to twelve, one dessertspoonful; from two to seven, one teaspoonful.

PREPARED BY T. B. WHEELER, M.D., MONTREAL, D.C.

D. W. KOLBE & SON,
Manufacturers of SURGICAL and ORTHOPÆDICAL INSTRUMENTS, ARTIFICIAL LIMBS, TRUSSES, ABDOMINAL SUPPORTERS, ELASTIC STOCKINGS, &c.
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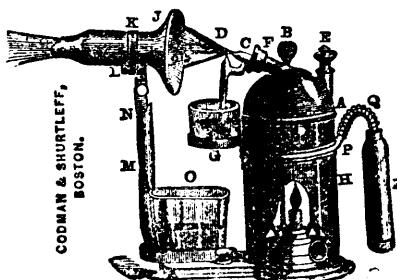
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APIOL is a specific for Menstrual disorders: it relieves Suppression, regulates the Periods, and prevents or removes the pain which accompanies them. It is without danger, even in cases of pregnancy. But the trade issues, under the name of APIOL products more or less adulterated; among others, a greenish preparation which physicians should reject. In a state of purity APIOL is an oleaginous liquid, of an amber color and denser than water. This is the character of that supplied by Drs. Joret and Homolle, the discoverers of this valuable emmenagogue, the great efficacy of which has been established in the Hospitals of Paris.

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The Complete Steam Atomizer. (Patented March 24, 1868.)

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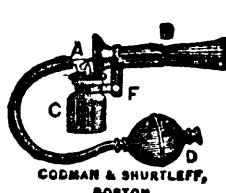
Every one is tested by hydrostatic pressure, to more than one hundred pounds to the square inch.

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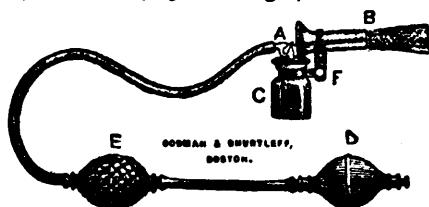


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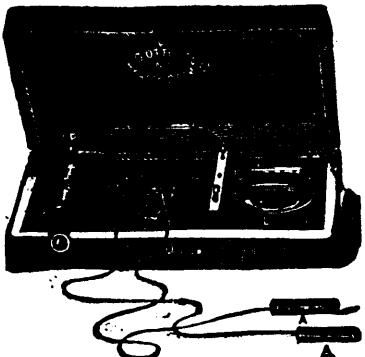
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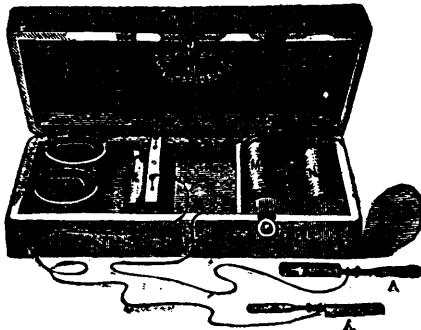
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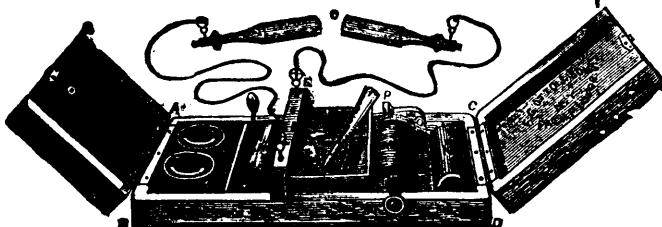


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Two channels into the bottle, one for the fluid to flow in, the other to admit the air to be pumped out.

The fluid can flow uninterruptedly, and the bottle exhausted at the same time.

The instrument is nickel plated, and put up in a handsome velvet-lined Morocco leather case, with three gilt seamless needles of different sizes.

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Consists of India rubber pump, one needle, the mounts nickel-plated, packed in Mahogany case.

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This article is intended to take the place of the ordinary Emp. Adhesive, on account of its superior quality and cheapness. It is pliable, water-proof, non-irritating, very strong, and extra adhesive. It is not affected by heat or cold, is spread on honest cotton cloth and never cracks or peels off; salicylic acid is incorporated with it, which makes it antiseptic. It is indispensable where strength and firm adhesion are required, as in counter-extension, or in the treatment of a broken clavicle. It has been adopted by the New York, Bellevue, and other large hospitals, and by many of our leading surgeons.

Furnished in rolls 5 yards long, by 14 inches wide.
" " 1 " 7½ "

Price by mail, per yard roll, 50 cts., 5 yards 40 cts per yard.

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IN RUBBER COMBINATION.

Recent analytical tests conducted by Prof. R. O. Doremus, of Bellevue Hospital Med. College, and J. P. Battershall, Ph. D., analytical chemists, New York, to determine the comparative quantities of atropine in Belladonna Plaster, prepared by the different American manufacturers, disclosed in each case that our article contains a greater proportion of the active principle of Belladonna than any other manufactured. Samples of the various manufactures, including our own, for this test, were procured in open market by the above named chemists themselves. In the preparation of this article, we incorporate the best alcoholic extract of Belladonna only, with the rubber base. It is packed in elegant tin cases, (one yard in each case), which can be forwarded by mail to any part of the country.

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We incorporate, by a cold process, the whole fly (best selected Russian), with the rubber base, which constitutes, we believe, the most reliable cantharidal plaster known. It is superior to the cerate, and other cantharidal preparations, the value of which is frequently greatly impaired by the excessive heat used in preparing them, which volatilizes or drives off an active principle of the fly. By our peculiar process, no heat is used.

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Superior to the best French makes; does not crack or peel off, or tear when wet. Can be removed without soiling the skin. Always reliable.

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LAMELS FOR INTERNAL ADMINISTRATION

Consisting of thin sheets, of uniform thickness, accurately divided into squares by raised lines, each square containing an exact dose of the Medicine with which the sheet is impregnated.

Issued in sheets, each consisting of 24 squares. Price 1s. 9d. per sheet.—The Lamels are TASTELESS when swallowed quickly with a little cold water.

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Consist of Small Discs (SQUARE), impregnated with Alkaloids, etc., and are put up in small boxes, each containing 25 Discs, price 2s. 6d.

The chief feature of these Discs is their instant solubility, by which hypodermic solutions can be immediately obtained of uniform and reliable strength ; they keep good for an unlimited period in their dry state, and are extremely portable.

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Comprise Minute ROUND Discs impregnated with a definite proportion of Alkaloids, etc., and are issued in small Tubes, each containing 100 Discs, 2s. 6d.

The little round Discs of soft Gelatine have the advantage of slowly softening and dissolving. The atropine, or other medicament gradually dissolves out, and is thus placed under the most favourable circumstances for absorption. Hence much smaller doses serve to produce a marked effect, by this form of application, than when drops are introduced.

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The most elegant, efficacious and convenient mode of Blistering. Tins, 1s. 3d.

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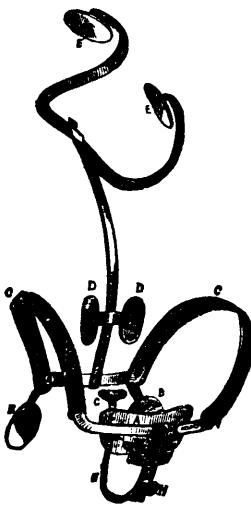
Fig. No. 8 is a comfortable support to the abdomen, but is not so effective as No. 8 in supporting the bowels, spine or chest.



ABDOMINAL AND SPINAL
SHOULDER AND LUNG BRACE.

FIG. 8.

No 8 is a general and grateful support to the hips, abdomen, chest, and spine, simultaneously and by itself alone, is ordinarily successful; but when not so particularly in spinal and uterine affections, the corresponding attachments are required.



ABDOMINAL AND SPINAL
SHOULDER AND LUNG BRACE.

FIG. 8.

THE IMPROVED BODY BRACE.

FIG. 3.



THE BANNING

Truss and Brace Company's

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OR

Mechanical Support

Has the unqualified endorsement of over five thousand of the leading medical men of this country and Europe, and has been adopted by them in their practice

PRACTITIONERS

report to the Medical Journals and to us that cases of

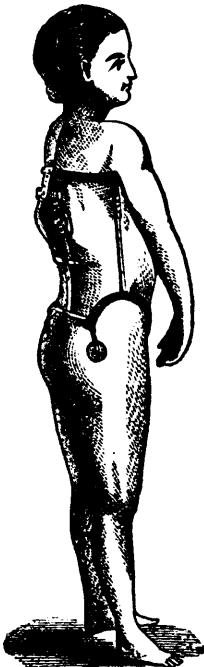
Hernia, Spinal Deformities and Uterine Displacement.

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Yield Readily to our System of Support.

AN EXPERIENCED PHYSICIAN IN ATTENDANCE FOR CONSULTATION.

HOW TO MEASURE FOR ANY OF THESE APPLIANCES
1st. Around the body two inches below the tips of hip bones.
2nd. Around the chest, close under the arms.



3rd. From each armpit to corresponding tip of hip bone.
4th. Height of person. All measures to be in inches.
Measure over the line, drawing the measure moderately tight.

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NO OTHER OFFICE OR ADDRESS.

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NO. 19. — THE IMPROVED REVOLVING SPINAL PROP, for sharp angular curvature, or "Pott's Disease" of the spine. Recent and important improvements in this have led to its adoption by the most eminent physicians.



* * * * * Sugar-coated Pills are more soluble than
gelatine-coated or compressed pills.—*Prof. Remington's paper read before
American Pharmaceutical Association, Boston, 1875.*

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WARNER & Co's Pills are unequalled for their medicinal qualities, as the best materials enter into their composition, and the utmost care is used in their manufacture. An experience of twenty-two years, with careful attention and study, has enabled us to achieve results otherwise unattainable.

We claim the art of Sugar-Coating, which avoids drying the mass so hard as to render it insoluble and inert.

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We would particularly invite your kind attention to our make of

PILLS OF SOLUBLE BI-SULPHATE OF QUININE,

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FORMULÆ AND THERAPEUTICS.		PER 100
		MEDICAL PROPERTIES. Doses. Each.

AQUE,	{ Chinoidin, 2 grs. Ext. Col. Co. $\frac{1}{2}$ "} Ol. Pip. Nig. 1-5 " Ferr. Sul.	Antiperiodic.	2 to 4	75
ALOES, U. S. P.	{ Pulv. Aloes Socot, 2 grs. " Saponis, 2 grs.	Stimulating Purgative. Directed to lower portion Alimen'y Canal	1 to 3	40
" COMP. (Pil. Gent Comp.)		Tonic, Purgative.	2 to 4	40
" ET ASSAFETID.	{ Assafetida, $\frac{1}{2}$ grs. Pulv. Saponis, $\frac{1}{2}$ grs.	Purgative, Antispasmodic.	2 to 5	40
" ET FERRI,	{ Pulv. A. oea Socot: $\frac{1}{2}$ gr. Zingth Jam: 1 gr. Ferr. Sulph: Exsic: 1 gr. Ext. Comi, $\frac{1}{2}$ gr.	Tonic, Purgative.	1 to 3	40
" ET MASTICH:	[See Pil. Stomachice].	Stimulating Purgative.	1 to 2	50
" ET MYRRHÆ.	{ Pulv. Aloes Socot, 2 grs. U. S. P. Myrrha, 1 gr. (Cret. Stigmat, $\frac{1}{2}$ gr.)	Cathartic, Emmenagogue.	3 to 6	50
" ET NUC. VOMICA.	{ Pulv. Aloes Soc: 1 $\frac{1}{2}$ grs. Ext. Nuc. Vomica, $\frac{1}{2}$ gr.	Tonic, Purgative.	1 to 2	50
ALTERATIVE,	{ Mass. Hydragr, 1 gr. Pulv. Op. $\frac{1}{2}$ gr. Pulv. Ipecac., $\frac{1}{2}$ gr.	Alterative, with tendency to Mercurial Impression.	1 to 2	50
AMMON. BROMID, 1 gr.	Pulv. Aloes Socot,	Sedative, Alterative, Resolvent.	1	75
ANDERSON'S SCOTS.	{ Sapon. Hispan. " Fruct. Cologynth. " Gambogia, Oleum Anini.	Cathartic.	2 to 5	
ANTHELMINTIC,	{ Santonin, Calomel, II, 1 gr.	Anthelmintic.	1 to 2	1

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ANTI-BILIOUS, (Vegetable) { Pv. Ext. Coloc. C. 2½ grs. } -----	Cholagogue Cathartic.	2 to 8	60
ANTI-CHILL, { Chinoidin, 1 gr. } -----	Antiperiodic. Applicable to ob-	1 to 2	1 00
{ Ferri Ferrrocyan 1 gr. } -----	stinate intermitents.		
{ Ol. Piper. Nig. 1 gr. } -----			
{ Arsenic, 1-20 gr. } -----			
ANTI-DYSPEPTIC, { Strychnia, 1-40 gr. } -----	Applicable where Debility and	1 to 2	1 00
{ Ext. Belladonna, 1-10 gr. } -----	Impaired Digestion exist.		
{ Pulv. Ipecac, 1-10 gr. } -----			
{ Mass. Hydrast. 2 grs. } -----			
{ Ext. Col. Co., 2 grs. } -----			
ANTIMONII COMP. U. S. P. [See Pil. Calomel Comp.] -----	Alterative.	1 to 3	40
APERIENT, { Ext. Nuc. Vom. 2 gr. } -----	Aperient Tonic.	1 to 2	85
{ " Hyoscyam. 2 gr. } -----	Nerve Stimulant.	1 to 2	40
ASSAFOETIDA, U. S. P. 2 gr. -----	Nerve Stimulant.	2 to 4	40
" COMP. { Assafetida, 2 grs. } -----	Tonic and Nerve Stimulant.	2 to 5	40
{ Ferri Sulph. Extic. 1 gr. } -----			
ASSAFOETIDA, ET RHEI, { Assafetida, 1 gr. } -----			
{ Ferri, 1 gr. } -----			
BISMUTH, Subnit. 3 grs. -----	Tonic, Laxative, Nerve Stimu-	2 to 4	75
" Subcarb. 3 gr. -----	lant.		
BISMUTH et Ignatiae, { Bismuth Sub. Carb. 4 grs. } -----	Sedative, Antiperiodic.	1 to 5	75
{ Ext. Ignatiae Amara, ¼ gr. } -----	Sedative.	2 to 5	75
" et Nuc. Vomica, { Bismuth Sub. Carb. 4 grs. } -----	Sedative, Antiperiodic, Tonic.	1 to 2	1 50
{ Ext. Nuc. Vomica, ¼ gr. } -----	Sedative, Tonic.	1 to 2	1 50
CALOMEL, ½ gr. -----	Alternative.	1 to 3	40
" 1 gr. -----	"	1 to 3	40
" 2 grs. -----	"	1 to 3	40
" 3 grs. -----	"	1 to 3	40
" 5 grs. -----	"	1 to 3	40
" Comp. (Plummer's) 3 grs. { Calomel, Oxyacuph. Antimony, Guaiacum Resin. } -----	Alternative, Anti-Rheumatic.	1 to 3	40
" ET OPII, { Calomel, 2 grs. } -----	Cathartic, Anodyne.	1	85
{ Opium, 1 gr. } -----			
" ET RHEI, { Calomel, ½ gr. } -----	Mild Purgative.	1 to 3	75
{ Ext. Rhei, ½ gr. } -----			
{ " Coloc. C. ½ gr. } -----			
{ " Hyoscyam. 1-6 gr. } -----			
CAMPHOR ET EXT. { Camphor, 1 gr. } -----	Anodyne. Cerebral Stimulant.	1 to 2	50
HYOSCYAMUS, { Ext. Hyoscyamus, (Eng.) 1 gr. } -----			
CATHART. :Comp., U. S. P. { Jalape, 1 gr. } -----	Cathartic.	2 to 4	50
{ Pulv. Gambogia, ¼ gr. } -----			
" " Vegetable, { Calomel, (Podophyllin, Ext. Colocynth, Virgin Scammony, Aloes, Soap & Ginger. } -----	Cathartic.	2 to 3	50
{ Ext. Coloc. Comp. " Jalap, 1 gr. } -----			
" " Imp. { Podophyllin, Leptandrin, 3 grs. } -----	Cathartic.	2 to 4	50
{ Ext. Hyoscyamus, Gentian, Ol. Menth. Pip. } -----			
{ Pulv. Aloes Soc. " Rhel Opt. } -----			
CHAPMAN'S DINNER PILLS, { Gum Mastich. } -----	Stimulating Laxative.	1 to 3	60
CHERI OXALAT. 1 gr. -----	Nerve Tonic.	1 to 3	1 00
CHINOIDIN, 1 gr. -----	Tonic, Antiperiodic.	2 to 4	40
" 2 grs. -----	Tonic, Antiperiodic.	2 to 4	50
" COMP.: { Chinoidin, 2 grs. } -----	Tonic, Antiperiodic.	1 to 2	1 00
{ Ferri Sulph. Extic. 1 gr. } -----			
{ Piperina, ½ gr. } -----			
CINCHON. SULPH. ½ grs. -----	Tonic, Antiperiodic.	1 to 3	75
{ Pulv. Res. Scammony, 1 gr. } -----			
COCCIA, { " Soc. Aloes, 1½ grs. } -----	Hydragogue—Cathartic.	2 to 4	90
{ " Colocynth, ½ gr. } -----			
{ Potass. Sulph. ½ gr. } -----			
{ Ol. Cervopyl. ½ gr. } -----			
{ Pulv. Aloes Soc. 1 gr. } -----			
COOK'S, 3 grs. { " Rhel, 1 gr. } -----	Purgative.	2 to 4	50
{ Calomel, ½ gr. } -----			
{ Sapon. Hispan. ½ gr. } -----			
COLOCYNTHIDIS COMP. , 3 grs. { Ext. Coloc. Comp. } U. S. P. -----	Purgative.	2 to 5	80
COLOCYNTH ET HYDRARG { Pulv. Ext. Coloc. Comp. 2 grs. } -----			
ET IPECAC, { Pulv. Hydrarg. 2 grs. } -----	Cholagogue Cathartic.	1 to 3	75
COLOCYNTH ET HYOSCYAM. { Ext. Coloc. C. 2½ gr. } -----	Gentle Laxative.	1 to 2	75
COPAIBAE, U. S. P., 3 grs. -----	Alterative to Mucous Mem-	2 to 6	50
" ET EXT. CUBEBAE, { Pil. Copasae, 3 grs. } -----	brane.		
{ Oleo-resin, Cubebe, 1 gr. } -----	Alterative to Mucous Mem-	2 to 4	80
COPAIBAE COMP. { Pil. Copao, Resin Guaia. } -----	brane.		
{ Ferri Ct. Oleo-resin Cubebe, 1 gr. } -----	Alterative to Mucous Mem-	2 to 4	80
DIGITALIS COMP. { Pulv. Digitalis, 1 gr. } -----	Arterial Sedative.	1 to 3	50
{ Sapo. Hispan. 1 gr. } -----			
DIURETIC, { Soda. Carb. Extic. 2 grs. } -----	Diuretic, Antacid.	1 to 3	50
{ OL. Baccs. Junip. 1 drop. } -----			
DUPUYTREN. { Pulv. Glaucia. 3 grs. } -----			
{ Hydg. Chlor. Corros. 1-10 grs. } -----	Specific Alterative.	1	50
{ Pulv. Opif. ½ gr. } -----			
{ Ergotin. 1 gr. } -----			
EMMENAGOGUE, { Ext. Hemphore. Nig. 1 gr. } -----	Active Emmenagogue, Tonic.	1 to 3	1 40
{ Aloes, Socot. 1 gr. } -----			
{ Ferri Sul. Exa. 1 gr. } -----			
{ Ol. Sabine. ½ gr. } -----			

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TORONTO.

THE CANADA LANCET,

A MONTHLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

VOL. XIV. TORONTO, FEB., 1882. No. 6.

Original Communications.

PoISONING BY STRAMONIUM.

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

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[Read before the Medico-Chirurgical Society, Montreal.]

Instances of poisoning by the various parts of the Jamestown weed are sufficiently uncommon to make them worthy of record. In the following case I was, fortunately, able to watch the patient throughout the whole illness.

At half-past six on the evening of the 17th of September last I was sent for hurriedly to see a little girl, aged five, who was said to have been poisoned by eating castor oil seeds. On my arrival at the house I found, from the mother, that the little patient had been in perfect health previous to her present illness, which had come on suddenly at five o'clock, and within twenty minutes after eating, as was then supposed, part of a castor oil seed capsule. I also learned that she first complained of great dryness in her throat and burning at the roof of the mouth, and had asked for a rag and a cup of water to wash her tongue. The child since then confessed, that she wanted the water to wash off the remains of the poison which she thought she felt in her mouth. Shortly afterwards she complained of being very thirsty, but seemed unable to swallow the water that was offered her. She then said she was sick at the stomach, but did not vomit, although she made several efforts to do so. The child's mother, noticing for the first time, that there was something wrong with the child's eyes, and that her face was flushed, told her to lie down, which she did and soon fell asleep. Fifteen minutes afterwards she awoke, complained of pain or burning in the pit of her stomach ; got up from the sofa on which she was lying and tried to walk

across the room, but was unable to take more than two or three steps without falling, and yet she did not complain of giddiness or of ringing in her ears. Twitching of the muscles of the forearm and leg was the next symptom noticed, soon after which she became delirious. In the early stage of the delirium, she frequently protruded her tongue as if it felt hot, or to indicate a desire for water. When I saw her, an hour and a half after eating the seeds, she was lying on her back apparently unconscious, delirious, and in convulsions, making every now and then an attempt to catch with her hands imaginary objects in the air. Her eyes were bright and glistening ; the conjunctivæ red and injected, and the pupils widely dilated and insensible to light. The delirium was of the "busy" kind ; she would talk rapidly and incoherently for a time and then break out into laughter. This might be succeeded by a short fit of crying accompanied by an expression of terror on her face ; or she would suddenly start back as if some object were about to fall on her. On several occasions this state of fear was brought about by some one approaching or stooping over her, and she twice appeared to attempt to strike one of her sisters who came near the bed. The convulsions were general ; the twitchings of the hands and feet being plainly marked throughout. The skin of her whole body was dry, felt hot and was of a deep bright scarlet color. The temperature was normal, the pulse small and accelerated, but owing to the convulsive movements of the child's body I was not able to count it accurately. Her breathing was interrupted but not rapid. These symptoms did not of course indicate poisoning by castor oil seeds, and I had little difficulty in identifying one of the supposed *ricinus* capsules shown to me with the thorny fruit of the *datura stramonium*. It appears that a neighbor, ignorant of the poisonous properties of the plant, had cultivated it for the beauty of its flowers, and having thrown several of them, "gone to seed," over his fence on to the sidewalk, they were observed and taken possession of by some children playing close at hand. My patient being one of the number, and having a predilection for original investigation had eaten part of one. As the poison had been taken on an empty stomach, and as it was probable that some of the soft albuminous pulp surrounding the seeds had been eaten as well as the seeds themselves, I concluded that the former

had been mostly absorbed and that the latter had passed into the small intestines. Added to this the insensible condition of the patient and the difficulty with which she swallowed, I decided not to make any persistent effort to bring on vomiting, but administered at once a strong purgative (of calomel and rhubarb, I think,) and followed it up by a large rectal injection of linseed tea and castor oil. She had in consequence of this several copious motions from the bowels. They seemed to relieve her, and with the last one, during the night, she passed three or four half digested stramonium seeds. At 7 30, and every subsequent hour until midnight, I administered 5 grs. each of chloral hydrate and potassic bromide, with a view of controlling the convulsions, but I think they produced little or no effect. At 1 a.m. I gave her a hypodermic injection of $\frac{1}{10}$ gr. of muriate of morphia, intending to repeat it if necessary. I was not obliged to inject a second quantity, for in three quarters of an hour afterwards she fell into a troubled sleep which lasted until 10 a.m. next day. At 11 a.m. she was still nervous, with a red flushed face, twitching hands and widely dilated pupils—but perfectly conscious and able to give an account of how she obtained the stramonium capsules. The nervous and other symptoms passed off during the day but the mydriasis lasted all that day, the next night and part of the following Monday, when she seemed as well as ever. As far as I can learn by watching the evacuations and questioning the patient, and the children that were with her, she probably ate about half a dozen seeds and about the same bulk of the pulpy matrix in which they were imbedded. Even where comparatively large quantities of the plant are taken, people usually recover from the poison. Woodman & Tidy give an interesting *résumé* of datura poisoning cases in their work on Toxicology. A boy, aged 7, ate a quantity of green seeds and after serious symptoms got well. Seven children, between 6 and 9 years of age, took each ten seeds and all recovered. A little girl ate 3jss. of the seeds, and a boy, aged 4, a tablespoonful, and yet both recovered. However, Christison mentions a case where a decoction of 125 seeds was taken and death was the result in seven hours. So, too, there is a case recorded in the London "Medical Gazette," (vol. xv. page 320) in which 100 seeds were eaten by a child 2 years old and death resulted in 24 hours.

These different terminations may be foreseen if it be known whether the poison has been swallowed in the form of concentrated extracts or tinctures, or if merely the seeds have been taken. The one is the poison encapsuled, the other in solution.

The most interesting questions that arise in connection with this case refer to the detection of the poison, and I have endeavoured, with more or less success, to answer some of them. Would the urine of a person poisoned by so small a quantity of thorn-apple seeds and pulp give sufficient evidence of the nature of the poison?

And again, having proved the agent in question to belong to one of a certain class of vegetable poisons, have we any means of determining exactly from what plant it is derived?

To decide the first question I had preserved the first urine passed by the child after seeing her. This, voided at 10 a.m. on Sunday, and amounting to about $\frac{5}{6}$ vi., was treated for me by my friend Mr. Bemrose as follows: liquor sodæ was added until the mixture became distinctly alkaline. This was shaken up with $\frac{3}{4}$ ij. of ether, and on standing the supernatant liquor was removed by means of a separator. This process having been repeated three times the ethereal solutions were mixed and allowed to evaporate spontaneously. The solid residue was now dissolved in pure water acidulated with hydric chloride. Again, liquor sodæ was added and the resulting alkaline solution twice washed with ether. On evaporating the second ethereal solution there remained a thin film of nearly colorless, odorless, amorphous matter to which on the 29th of October, I applied the following test: I put one-half of the evaporated residuum into my left eye at 1.30 p.m., the introduction being followed by some smarting, tingling and lachrymation which, however, passed off in half an hour. At 3 p.m. I found the pupil dilated to its fullest extent and at midnight it was still in that condition. In the morning the dilatation was not so marked, and it gradually diminished until the pupil became normal 36 hours after the introduction of the agent. The chemical tests for those active principles that dilate the pupil are very unsatisfactory, so much so that the microscope is usually appealed to in preference. In this instance there was not enough of the agent to test it chemically, even if it were desirable. The remaining half of the film was dissolved in sulphuric acid and allowed to crystallize and at

the same time, for purposes of comparison, a weak tincture of stramonium was put through the ether process and similarly treated by means of hydric sulphate. The crystals obtained from the urine, though few in number, are well shown under the microscope, and allowing for the difference in the strength of solutions from which they were obtained the single prismatic crystals and clustered groups of needles on one slide will be readily identified with those of the other. Although the evidence obtained by the methods of which I have just spoken—the first giving proof of the patient's having taken a mydriatic poison and the latter demonstrating its existence as a crystallizable alkaloid or salt of an alkaloid, and showing its crystalline form—though these matters are settled, I do not consider it by any means positive proof of the exact nature of the vegetable poison; and for these reasons: In the first place it is not definitely decided by authorities what the shape of daturia crystals is, or even whether the alkaloid is not found in more than one crystalline form. Both Guy and Taylor say it is usually found in long colorless four-sided prisms and clusters of needles—just the condition of things you will observe under the two microscopes here—but Taylor ("On Poisons," page 743) mentions a case where the daturia assumed the form of pentahedral or polyhedral plates, instead of quadrangular prisms. Hyoscyamia and atropia, both of which dilate the pupil, have been found in one or other of these shapes.

But a far more serious argument against the assumption that the microscope is capable of determining the vegetable origin of mydriatic crystals is our positive lack of knowledge concerning the nature of the active ingredients of the poisonous solanaceæ. It is not yet definitely settled, for instance, whether daturia is the only active alkaloid in the thorn-apple, or indeed whether daturia is not simply hyoscyamine or a modified form of atropia itself. Attfield thinks it is either identical with or a modification of atropine. E. Schmidt in the journal of the Berlin Chem. Society for May. '81, asserts that the seeds of stramonium contain not only daturine but atropine and hyoscyamine. Ladenburg, in the same periodical for Sept. '80, says that hyoscyamine and atropine, though readily convertible, the one into the other, are decidedly different, but wherein this difference lies has not yet been discovered. Regnault and Valmont, giv-

ing the results of an extensive examination of these alkaloids in the *Journal de Pharmacie et de Chimie* for July '81, conclude as follows: the atropine of medicine is a mixture in variable proportions of two isomeric crystalline alkaloids possessing the same therapeutic properties. One of these is atropine (*a*) (the atropine of Ladenburg)—the other atropine (*b*) or preferably atropidine, which is the hyoscyamine of Ladenburg. Atropidine exists in such abundance in belladonna that it forms about two-thirds of the crystalline atropine of the (French) codex. It is the crystalline alkaloid of all the mydriatic solanaceæ and of *duboisia myoporoides* and has been improperly named duboisine and datuinæ.

I think it must follow from these considerations that until we are better acquainted with the exact chemical and physical properties of their active principles, an examination of the urine alone will fail to determine which plant, in a given case, has been the source of the poisonous alkaloid,—and that although the symptoms, chemical and physiological tests, together with the microscope, may serve as valuable corroborative evidence from a medico-legal standpoint, the finding of the parts of the plant in the intestinal canal, or in evacuations therefrom, is the very best proof one can have.

THE ADMINISTRATION OF CHLOROFORM.

BY A. B. ATHERTON, L. R. C. P. & S., EDIN.,
FREDERICTON, N.B.

As there is no subject of more importance to every medical practitioner than the best means of guarding against the danger of death from chloroform, I may be pardoned for referring to the discussion which occurred at the last meeting of the Canadian Medical Association, in which the majority of the speakers seemed to favor the opinion that *syncope* was in most instances the cause of the fatal issue. I at that time took the position that such was not the case, but that it was generally due to *asphyxia*, and that one reason why the stoppage of respiration was not noticed was, that too much attention was bestowed on the pulse. Of course I do not mean to affirm that the heart is never seriously at fault in death from chloroform, but I do say that, in at least nine cases out of ten,

when trouble arises with persons who have no marked disease of that organ, the trouble comes from some interference with respiration. Nor can I now recall a single instance in which anything alarming occurred unless the *breathing* was at fault.

We all know that in many cases, the respiration under chloroform administration is carried on so noiselessly, that without the closest scrutiny in a good light it may become embarrassed and cease without one's notice. Again, the respiratory muscles sometimes act so as to cause movements of the chest walls, while the air is prevented from entering the lungs by closure of the larynx. And if one is not well on his guard, such action may be mistaken for good respiration, and the patient be allowed to go on till secondarily the heart ceases to beat and death occurs, which is then naturally attributed to syncope. In the 1877 edition of Erichsen's surgery, page 22, it is stated that Lister believes "that many of the deaths from chloroform in which the heart has been said to stop first were cases of this kind." I have often suspected too, that the very natural desire to escape blame has sometimes materially aided the microscope in detecting some fatty degeneration of the muscular fibres of the heart, which one sees frequently reported as having been found at the autopsy.

I have had my attention very forcibly directed to this subject since the late meeting of the Association, by a circumstance which occurred a few weeks ago in my own practice, and which is in part my reason for again addressing you in regard to the matter. I was operating on a patient while a younger member of the profession was holding the chloroform towel, and just as I finished the operation I noticed that respiration was not going on well, and it was with a good deal of difficulty that it was re-established. The Dr. remarked to me that he had hold of the pulse all the time, and that it had pulsated all right; and I doubt not he spoke the truth, for as soon as I dare take the time to examine it, I found it strong, full, and regular.

It is sometimes asserted, when one of these unfortunate deaths from anaesthetics occurs, that no *one* man should attempt to do any operation and at the same time give the anaesthetic. Now, while this may be possible in hospital practice, or in a large city, it is practically out of the question in country districts, and often so in small towns. How can it be expected that every time a dentist

or practitioner of medicine requires to administer an anaesthetic, he must call in the assistance of another skilled person to aid him? It is not always the case that medical men are so very friendly that they can call upon each other at a moment's notice for such services, and even if such were secured, it would generally be difficult to obtain from the patient an extra fee for them. And here it is that the advantage of attending to the respiration alone, shows itself more conspicuously even than in cases where a second man can be had to assist one. We can readily use our *eyes* to observe the breathing occasionally, while a tooth is being extracted or some other minor operation performed, but we could not so well spare a *hand* to feel the pulse.

Finally, at the risk of wearying your readers or of appearing egotistical, let me adduce some arguments in favour of the operation of opening the windpipe as a *dernier resort* in cases of chloroform poisoning. In all such cases, where the less severe means have failed to bring the patient back to a condition of safety, it is of course of the utmost importance that no time should be lost in the application of our remedies; and on this account I maintain that tracheotomy (or laryngotomy as the case may be) is preferable to the application of boiling water to the chest or the use of the battery. For it is not always that hot water can be had at a moment's notice; neither is a battery often going by the patient's side, nor is it always even present or in good working order. Then, again, as in the case reported by me in the number of the LANCET for June, 1881, the assistance of a second person who can start your galvanic apparatus is frequently not at your immediate command. Furthermore, is not the lividity you get in chloroform asphyxia of such a pale whitish character that it may easily be mistaken for syncope, and lead one to neglect the use of a remedy for the restoration of breathing because he thinks it is the heart that needs to be excited to action. I know that in my own case the colour of the man's face was much like the pallor one gets in the last stage of diphtheritic croup, or perhaps more like that of death itself; and I am quite sure that I could not have told from *it* whether his case was one of asphyxia or syncope, until I made the incision in the neck and found a copious flow of venous looking blood from the wound.

It may be urged against the operation, that in the first place, every one can not be trusted to undertake it ; secondly, that a tracheotomy tube (like the boiling water or battery) is not always at hand ; and thirdly, that it is too serious an operation to be often or hastily done. In answer to the first objection, let me observe that it is almost always (if not always) in persons beyond the age of early childhood that trouble occurs, and in such the windpipe is generally easily reached. As to the necessity of a tracheotomy tube, it could in my own case have been dispensed with as a pair of forceps to hold open the wound for a moment or two till breathing became good through the mouth was all that was really needed. If, however, artificial respiration should be required, a suture in each lip of the wound in the trachea could be utilized to ensure the free ingress and egress of air, and that too without the assistance of a second person to draw forward the tongue or lower jaw, as would be necessary in an ordinary case. Finally, as to the serious character of the operation itself, every one knows that *per se* it is neither dangerous to life, nor does it lay a person up for a long time. I operated on my patient on Saturday morning, and on Monday afternoon he walked a mile, crossing the river on the ice, and on the following morning got on board the train and went home, a distance of more than 100 miles. In a few days the wound was quite healed.

Taking everything into consideration then, I submit that in no case of threatened death from an anaesthetic should we neglect, as a last resort at least, to try opening of the windpipe, and if need be, artificial respiration through the opening. For it may be that in spite of the drawing forward of the tongue or jaw, the free entrance of air may be prevented by spasm of the larynx or some other obstruction.

EXOPHTHALMIC GOITRE TREATED BY ERGOT.

BY J. STEWART, M.D., L.R.C.P. AND S., EDIN.,
BRUCEFIELD, ONT.

[Read before the Canada Medical Association at Halifax.]

CASE I.—Miss W., aged 35, when seen for the first time in June, 1875, complained of a severe pain in each eye ball, with dimness of vision. She

also complained of palpitation of the heart, and enlargement of her neck.

Past History.—She says she enjoyed excellent health up to her first menstrual period, which took place when she was only 11 years of age. She lost a great quantity of blood at this time. From her twelfth to fourteenth year the catamenia were irregular—sometimes once a month, sometimes once in four or five months. From this time up till the present she had menstruated very regularly every six weeks. She had been troubled with palpitation of the heart for eight years. Seven years ago she had pneumonia, followed by acute rheumatism. The latter assumed an intermittent character.

Family History.—Her father died at 60, from typhoid fever ; mother at 45 from paraplegia, due, it was said, to softening of the cord. She lost a brother from dysentery, one from cerebo-spinal meningitis, a third from consumption, and a fourth was accidentally killed. Her only sister died from consumption. She is the sole survivor of a large family.

The history of the present attack dates from the month of October, 1874, when she began to be wakeful and nervous at night. After these symptoms had lasted for six weeks her eyes were noticed by a friend to be more prominent than usual. At this time her eyes were very painful. The pain was deep-seated, and extended back to the occiput. Her neck was enlarged and she had a constant inclination to swallow. Shortly after the appearance of the latter symptom she says the neck increased rapidly in size, and she was troubled very much with throbbing in it.

Present Condition (June, 1875.) There is a very marked prominence of both eyeballs, and abrasion of the cornea—this latter evidently due to the inability of the lids to cover the corneæ. There is a marked enlargement of the thyroid body, especially of its right lobe. The pulse is said never to be below 120, and on the least exertion it beats as high as 150 or 160. A systolic murmur, loudest over the base of the heart, is heard. Belladonna was given to her at this time for about two months, and seems to have had some effect in diminishing the exophthalmos, but with little or no effect on the other symptoms. During a visit to the United States she stopped the belladonna and took strychnine, and in such doses as to cause severe symptoms of poisoning. She was not benefitted in the least by

the strychnine, and on her return to Canada I put her under ergot, commencing with ten minim doses of the fluid extract three times a day. She was not taking this long before it was apparent that there was quite a diminution in size of the thyroid and less protuberance of the eyeball; but it was on the pulse that the beneficial effect was first seen. From a pulse constantly at about 140 it was reduced in a few weeks to about 100 to 110. This improvement continued steadily until the pulse came down to between 80 and 90. Simultaneously the eyeballs lost their prominence, and the thyroid underwent great diminution in size. She continued taking the ergot for a year, the dose of which was increased to fifteen minims three times a day during the last three months of this period. At the present time (July, 1881,) she is perfectly free from all symptoms of her troublesome affection.

CASE II.—Mrs. M., aged 32, married, two children, youngest aged 18 months. When first seen, in June, 1880, she presented all the characteristic symptoms of exophthalmic goitre in a pronounced degree, including the want of spontaneous movements between the eyelids and eyeballs.

Her family and previous history are unexceptionable. It was four years ago that she felt the symptoms of her present trouble in the shape of nervousness, weakness, and palpitation of the heart. For six weeks previous to the appearance of these symptoms she was much worried mentally, and overworked physically in nursing a child who had been ill with bronchitis and catarrhal pneumonia. It was soon afterwards noticed that her eyeballs were more prominent than they naturally were. Her husband "wondered why she stared so at him." About the same time appeared enlargement of the neck, principally on the right side. She continued in this state, now better, and now worse until I saw her in June of last year. Her pulse was constantly found to be 120, and on the least exertion it ran up to 150 and over, and she complained of great palpitation of the heart. She had been taking iron and digitalis for months, but without the least sign of improvement. She was ordered fifteen minim doses of the fluid extract of ergot, three times daily. She had not been long under this treatment when it was found that the pulse had been reduced to 100, and there was less palpitation of the heart. She could undergo exertion better, and expressed herself as feeling much

improved. The next symptom found improved was the motions of the eyelids, which now followed the eyeballs, but still tardily. Then came reaction of the eyeballs and later diminution in the size of the thyroid body. She continued taking the ergot until three months ago, when she expressed herself as feeling so well that she thought it was unnecessary for her to continue the treatment any longer. On examination at this time the pulse was 80, there was no exophthalmos and the thyroid was normal in size. At the present time she is in excellent health, and no symptoms of her former trouble are to be detected.

CASE III.—Mrs. S., aged 29, married, five children, youngest aged five. Consulted me in January of the present year, complaining of weakness, violent palpitation of the heart, and oedema of the lower extremities. Family and previous history good. Six months previously the first symptoms of her present trouble showed themselves. She commenced to feel weak, and her heart beat violently on the least exertion. The eyeballs became protuberant and she complained of having much pain in them. The thyroid enlarged very rapidly. When first seen the enlargement was very extensive, and she was greatly annoyed from "an almost constant beating in her neck and noises in her ears." She expressed herself as unable to go upstairs, on account of the violent palpitation and a sense of suffocation. The exophthalmos was extreme enough to prevent the lids from protecting the corneæ, and the latter, in consequence, were found abraded. Von Graefe's symptom was well marked. The pulse was found to be 140 and irregular. A loud systolic murmur, having its maximum intensity in the cardiac region, was heard. The lower extremities were oedematous. She commenced taking fifteen minim doses of the fluid extract of ergot three times daily, but in a few days this treatment was interrupted by a severe attack of pneumonia, from which, however, she made a good recovery. She has been taking the ergot now for about five months, and is still continuing it. She was examined on the 22nd of July, and it was found that she had much improved. The exophthalmos and goitre are both much less. She is not troubled now with pain in the eyeballs, beating in the neck or noises in the ears. Her pulse is 88, and active exercise has not any more influence in increasing it than it has in the normal state. The

œdema of the lower extremities has disappeared, but the mitral murmur still persists. She says that she feels well, and does not consider herself an invalid. When this patient first came under observation an unfavorable prognosis was given, on account of the severity of the symptoms, and the complication with what then appeared to be an organic disease of the heart, but judging from the late intermittent character of the murmur is likely functional. The pulse is still irregular and presents evidence of high tension.

A fourth case of exophthalmic goitre has come under my observation, but its onset was so sudden and its duration so short, I consider that the ergot which was given had but little to do with the result. It occurred in a girl, aged 18, who received a very violent shock in witnessing the sudden death of her brother, who was considered to be at the time convalescent from a mild attack of diphtheria. The disease made its appearance in this case in one night, and when seen the following day she presented a good example of a typical exophthalmic goitre. In about ten days all the symptoms had disappeared.

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GENERAL RULES FOR THE GUIDANCE
OF EXPERTS IN CASES OF SUSPECTED
POISONING.—CIRCULAR OF THE MIN-
ISTER OF GRACE AND JUSTICE.

*Translated from Rivista Sperimentale di Frenia-
tria e di Medicina Legale, Reggio Emilia,
Italy, 1881.*

BY JOSEPH WORKMAN, M.D., TORONTO.

"The Commission constituted by Royal Decree of 11th April, 1880, for the purpose of studying the very grave questions related to evidence in alleged crimes of poisoning, and to the special characteristics of cadaveric poisons, has, in accordance with my request, suggested certain general rules which should be observed by the Judges and the experts, in order that the most important elementary facts, from which the proofs of the crime may be inferred, may not be lost.

"I now hasten to summarize these rules, to which I request the attention of the Attorney-General of the King, and the Judges.

"The Commission has deemed it proper to state primarily that it is of the greatest importance,

as soon as the first suspicions of poisoning have arisen, that with all possible care and diligence, all the most particular facts relating to the progress and the morbid symptoms preceding death should be collected; for whilst the memory of these is fresh it is not difficult to succeed in this, but at a later period it is unusual to do so, unless incompletely and by means of ambiguous depositions, in consequence of which the judge is deprived of a very important criterion as to the true character of the case.

"I regard it as his duty to recommend, with the utmost insistence, the adoption of such measures as may secure the better selection of medical experts to be entrusted with the first operations, exacting in them such guarantees of capability for the performance of their special work, as cannot be possessed, and indeed are but indistinctly possessed in general, by those who have attained to the doctorate in medicine and surgery. This is an error of omission in the primary researches which may result in irremediable loss of proof of the actual crime, and may open the way to the most unjust conclusions.

"Having premised so much I now submit the most important recommendations which, in the opinion of the Commission, should be considered by the magistrates and the expert dissectors; it is, however, to be understood that those ulterior proceedings, which the progress of the studies on the generic proof of poisoning, and chiefly on the fact of the formation of cadaveric poisons, which may appear necessary, are to be reserved, as well as the others which the peculiar characteristics of the cases may suggest to the said experts.

The Instructions to Experts.

"1st. The inspection and the section of the body should be made as soon as at all possible after death. Not only should the cavities of the thorax, abdomen and cranium, but also the vertebral canal be opened. The conditions of each viscera and tissue, and of the blood ought to be diligently examined, and the aid of the microscope should be availed of when necessary.

"2nd. For the preservation of the viscera and other substances to be subjected to chemical examination, well closed glass vessels, new, with ground stoppers, and not before used for any purpose whatever, and washed out with water and alcohol mixed, are to be employed.

"3rd. To the viscera and other substances placed in these vessels, there should be added as much alcohol as will, in excess, cover the solids. For liquids to be preserved half a volume in excess of that of such liquids will suffice, provided the alcohol be of the strength of 95 to 98 per cent; but if the strength be lower about one-fourth additional will be necessary.

"4th. Only chemically pure alcohol is to be employed, that is to say, previously redistilled, and deprived of every foreign substance.

"5th. In every case not less than half a litre of the alcohol employed is to be preserved separately in one of the glass vessels described, for the controlling chemical researches.

"6th. In another of the glass vessels the entire brain and spinal cord will be preserved.

"7th. In a third, both lungs, the heart, spleen, kidneys, and the urinary bladder (after being emptied of its contents), and as large as possible, a quantity of blood from the centre of the heart and the great vessels, will be placed. In this vessel may also be preserved the matters which have escaped into the thoracic cavity.

"8th. The urine is to be preserved separately in a fourth vessel.

"9th. After application of proper ligatures the stomach and the small intestines are to be removed, successively opened, and their contents put into a fifth vessel, in which the stomach and intestine themselves shall also be placed, not, however, until after having instituted on each a most diligent examination, in order to discover whether there are any anatomo-pathological alterations; this intimation will also apply to every other viscera and organ. In this vessel the matters gathered from the abdominal cavity, when there are such, may be preserved.

"10th. In like manner is the large intestine with its contents to be treated, and to be preserved in a sixth vessel, and in case of the exhumation of a body, the excrement or deposit that may be found on the bottom of the coffin, may be placed in the same vessel.

"11th. In a seventh vessel the entire liver will be preserved.

"12th. A good portion of the muscles detached from the body, so as to avoid as far as possible including any of the adipose panniculum of the skin, will be placed in an eighth vessel. When

it may happen that there is not at command a vessel of the required size, two may be employed instead of one. This observation will also apply to the substances mentioned in No. 7.

"13th. In special instances of the presence of traces of blisters, sores, fistulous sinuses or wounds, which may have been the possible passages of poison entrance, a portion of the tissue of the part should be removed, and preserved in another vessel. Particular parts injured in the buccal cavity and the pharynx, may indicate the nature of the suspected poison.

"14th. There should, in case of exhumation, be preserved in another vessel a sample of the earth surrounding the coffin, when the nature of the suspected poison may suggest the advisability.

"15th. Lastly, the dissecting expert is recommended to use the precaution of making deep and numerous incisions into the parenchymatous viscera and the muscles, before placing them in the vessels, so that the alcohol may readily penetrate them as far as possible.

"I commend to the judicial authorities this highly important subject, and I feel convinced they will not fail to conform to the recommendations and precautions above indicated.

"Firm. Il. Ministro,

"T. VILLA."

"ROME, 20th Feb., 1881.

Remarks:—We imagine that but few of our readers will aver that the preceding instructions of the Italian "Minister of Grace and Justice" (God save the mark!) fall short in exigent minutiae. Though many of the suggestions (or commands) seem to be very appropriate, we fear the carrying of them into effect will be attended with more difficulty than the framers of them may have forecast. We certainly should not have so much faith in their technical observance in this country as to advise the introduction of the whole of them by our Attorney-General, unless he should bring up his ministerial courage to that measure of "Grace and Justice" towards medical experts, which hitherto he has not been able to reach. The editor of the *Rivista Sperimentale* informs us that he was not favoured by the Minister with a copy of the instructions, but by a legal friend, who wrote to him, stating, amongst other matters, that he considered the tariff of fees allowed to experts too low.

Here, then, was a *rarissima avis in terra*, a lawyer advocating better pay to doctors. We wish we could import a few of his feather into this Canada, under the hope that they would multiply, and teach our songsters of the bar, the bench and the legislature, a better style of music, and a higher order of grace and justice towards our body.

LACERATION OF THE CERVIX.

BY J. E. BROUSE, M.D., BROCKVILLE, ONT.

Never having seen, in any of our Canadian medical journals, a case reported of the above lesion, I cannot avoid believing that the great importance of the subject is not fully recognized by the profession in Canada; for if it were, there would scarcely be a monthly issue that would not contain a history of one or more cases. I do not expect to awaken much interest by the present communication, only hoping to induce at least a few of the profession to give this, not infrequent accident, more earnest attention.

The celebrated gynaecologist, Dr. T. A. Emmet, was the first to point out this lesion and to institute the operation for its repair. I have had the privilege of seeing Dr. Emmet operate on at least one dozen women for restoration of the cervical canal, and can bear witness to the great and, in the majority of cases, entire relief given. Dr. Emmet states, in his work, that 32.80 per cent. of all women who had passed under his observation and had been impregnated were found to have laceration of the cervix; and it has been fully demonstrated that nearly, if not, all cases of mis-called ulceration (erosion in reality) of the os, with profuse leucorrhœa and enlarged mucous follicles occurring in women who have borne children, have their origin in this lesion. It is only in very recent years that laceration has been diagnosed from ulceration and the early stages of epithelioma and corroding ulcer, and the mistake is yet only too common, for are we not constantly hearing of women who are the victims of ulceration of the womb when there is in reality no such disease of a non-malignant nature? I attended a lady the past year who was told by her previous medical attendant, who treated her for several weeks with Chian Turpentine at \$5.00 an ounce, that she had cancer of the cervix, (he diagnosed it

by the smell of her breath) when she had merely a slight laceration with erosion and was cured in six weeks.

It is not needful for me to enlarge on the importance of diagnosing and treating this lesion, as anyone who has read the works of either Emmet or Thomas cannot fail to be deeply impressed with the fact that it is a most prolific cause of nervous disease and neuralgia in child-bearing women.

October 15th, 1881, I was consulted by Mrs. T—, who gave the following history:—Age, 34; seven years married; has had four children; no miscarriages. First labor protracted, instrumental delivery; second labor easy; third, instrumental. The fourth, which occurred in August, 1880, was extremely rapid, and followed by a larger blood discharge than usual, the flow continuing quite freely for three weeks. Does not remember at what age menses first appeared, but was regular from the first, and had no pain before, during or after periods. Is always unwell while nursing. Since her last confinement, her health, which up to that time had been good, has become very bad indeed. She has neuralgic pains all over the body, at times of so severe a character as to drive her nearly distracted. Often the pain is dull and aching, as though she had been beaten. The menses are not as regular as formerly, coming on more frequently and lasting from five to seven days. She now has great pain in sides, hips and legs before, during and after the flow. Her complexion is pale, dark under the eyes; face has a worn, tired appearance.

On examination, found the uterus low down in the vagina, the fundus lying in the hollow of the sacrum, and the cervix lacerated bilaterally to vaginal junction, much everted, and eroded with mucous follicles enlarged. A profuse discharge, of a dirty grey appearance, bathed the cervix, the everted lips of which were fully two inches wide. On passing the probe, the uterine cavity was found to be two and one-fourth inches in depth, and when the cervical flaps were brought into position, by a tenaculum in either one, the depth from os to fundus was three and one-half inches. The preparatory treatment was at once begun by applying Churchill's tr. iodine to the erosion twice a week, and ordering the use of copious hot water injections night and morning in the recumbent posture, at the same time endeavoring to improve the gen-

eral health as far as possible by appropriate medication.

Nov. 15th, the erosion having healed I operated for the restoration of the cervical canal, assisted by Dr. Vaux, of Brockville, Dr. Jackson giving the chloroform, and my nurse bringing the parts into view with Sim's speculum. She took the chloroform kindly, and although under its influence one hour, not more than half an ounce was given. I need not describe the operation, merely stating that it was done as it is so clearly and admirably detailed by Dr. Emmet. The case progressed without the slightest bad symptom, and after the second day the vagina was washed out with carbolized warm water night and morning. The sutures were removed Nov. 23rd, but she was kept in bed, not even allowing her feet out, for fear of cellulitis, for two weeks longer. When the parts had firmly united and all tenderness on pressure gone, I passed the sound and found the depth from os to fundus to be two and one-half inches.

Before the operation there being no *cul de sac* for a pessary to lie in, it was not possible to keep the uterus in position, but now there was no difficulty in doing so, and she went home Dec. 15th wearing a nicely fitting Smith pessary and very much improved, not only in general health, but in all her nervous and neuralgic troubles. I have not heard from her directly since, but her husband told a neighbor of his that she was better than he thought it were possible for her ever to become.

That the bad results arising from this lesion may be, in a great measure, prevented, I have no doubt, were more care taken in cleansing the vagina with warm carbolized injections every day after confinement for at least three weeks, at the same time keeping the patient in bed. But so long as the acrid lochial discharge is allowed to flow over and constantly bathe the torn cervix, it is impossible for repair to take place, and when the lochia cease the woman is usually allowed to get up, and the womb, being large and heavy, gradually falls lower and lower, crowding the torn cervix on the vaginal walls, thereby producing eversion and effectually preventing union. Then follow in due course those functional nervous disorders and neuralgic troubles which render the lives of so many of our fruitful women a burden to themselves and an anxiety to their friends.

Correspondence.

ELECTRICITY IN SPASMODIC STATES.

To the Editor of the CANADA LANCET.

SIR,—I wish to offer a few remarks in reference to the article of Dr. A. M. Rosebrugh, in the last issue of the LANCET (p. 129), in so far as the same relates to the use of electricity in the treatment of spasm. The conditions of Writer's cramp and wry neck are there especially referred to, as well as spasm in general, with sundry details from leading writers as to the mode of application, etc., conveying to the reader the impression that electricity has really been proved to be a curative agent in spasmodic states.

The facts are, on the contrary, that electricity has proved a noted failure in this very class of cases; for the proof of which no better evidence can be asked than the following from J. Russell Reynolds, M.D., F.R.S., in his "Clinical Lectures on Electricity," p. 102. He says: "The forms of spasm in which electricity has been most commonly used are torticollis, a spasmodic condition of the muscles of the neck on one side; writer's cramp, and so-called histrionic spasm of the face. It is said that such cases have been cured, but my own experience has been unfortunate in regard to them. I have tried electricity again and again, in every individual form, but I have never seen it do any good. I have tried battery currents, direct and indirect; I have tried faradization weak and faradization strong, with wet sponge and dry; I have used static electricity also, and each form of electricity persistently. I have not given up because the treatment has done no good at first; but I do not know one single instance in which it ever seemed to do the smallest good." The same eminent observer, writing of chorea says: "In my judgment, the less one says in the present state of knowledge about chorea and its treatment by electricity, the better will it be for therapeutic science." (*Ib.* p. 82.)

In view of this strong testimony, the question will arise, how it is that Drs. Beard and Rockwell, and Dr. Bartholow can have been referred to so pointedly by Dr. Rosebrugh, in apparent support of a doctrine the very opposite? As regards the former, it may be said, that at the time their book was written, they were endeavouring to raise the

use of medical electricity from obscurity and even opprobrium into general favor; they entertained glowing anticipations of its future usefulness when methodically applied; and it was perhaps pardonable, if in isolated sentences, they appear to have drawn on those anticipations. But in reality they have bestowed very little commendation on the use of electricity in the treatment of spasm, and in the cases they furnish, they do not profess that a single one has really been cured by it. The few cases they have to offer were "improved" or "benefitted" etc., which might be accounted for by rest and the other concomitants of treatment. Writing of "muscular contractions" and their treatment by electricity, they say: "The prognosis is usually unfavorable for all, except the rheumatic cases."

As for Dr. Bartholow and his assertion, as stated by Dr. Rosebrugh, that "there is no fact in regard to galvanism more conspicuous than its power to allay spasms," I can do no better than quote, for the benefit of the readers of the *LANCET*, the estimate placed by the *N. Y. Medical Record* (September 3rd, 1881), on "our prolific author's latest production"—his treatise on electricity: "But even the student should not too implicitly rely on the positive assurance of the value of electricity in the numerous diseases for which it has been recommended. He should remember that the present book emanates from an optimist in all matters therapeutical. No one of course would to-day wish to dispute the great utility of electricity in some conditions of organic disease or functional disturbance. But one rises from the perusal of Dr. Bartholow's treatise with the conviction that the author expects rather more from electricity than would seem to be justified from well authenticated facts."

This, I think, is all that it is necessary to say in justification of the position here taken. What has appeared to render these remarks necessary is probably due to an oversight on the part of Dr. Rosebrugh, whose error, if such it be, passed muster before so astute and learned a body as the Toronto Medical Society (before whom the paper was read).

Yours, etc.,

THOMAS W. POOLE, M.D.

LINDSAY, Jan. 5, 1882.

Selected Articles.

FOUR CASES OF HEPATOTOMY.

August 15, 1880, Miss E. G., æt. 37. Between 1870 and 1872 she broke down in health, suffered from obscure symptoms of which she can now give no very clear account, but which were referred, by three practitioners, to the spine. In 1872 she consulted the late Mr. Carden, of Worcester, who diagnosed some hepatic mischief, but gave no decided opinion. In 1873 she had a severe inflammatory attack, the symptoms of which were regarded as being due to diaphragmatic pleuritis. That illness continued three weeks. Since then has never been well, suffering from bilious attacks, swollen legs and feet, dyspepsia, inability to walk and great mental depression. She asserts that the right leg has always been more swollen than the left. In 1876 her friends noticed an alteration in her size, she had to have her dress let out, her breathing became interfered with, and an enlargement on the right side became apparent. This increased slowly till 1879, when it was evident that the whole of the right chest and abdomen were enormously increased in size, but it was not till February of this year that any attempt at diagnosis seems to have been made, and the opinion then seems to have been that the enlargement was due to malignant tumor. In July she came under Dr. Pike's care, and he diagnosed it as a case of hydatids of the liver. Dr. Pike and Mr. Dawson aspirated the tumor August 11, and withdrew a few teaspoonfuls of clear serum, enough to establish the correctness of the diagnosis of multiple hydatids even though they coulc find no scolices in it. On the 15th I found her in such a condition that it was evident death from suffocation and exhaustion was imminent. She was propped up in bed to relieve her breathing, and was vomiting incessantly. Was extremely emaciated, had a hay-like odor of her breath, pinched features and yellow skin, and all the symptoms of extreme exhaustion. The hepatic dulness extended from the third rib down to umbilicus, crossing the middle line to the left all the way for about two inches, and much more at the lower margin. The whole of the right side was occupied by the tumor, no air was entering the right lung, the left was greatly interfered with, and the heart was pushed much over towards the left. Below the right ribs distinct fluctuation could be obtained over the tumor. I had no hesitation in proposing abdominal section. August 16, performed the operation; Dr. Pike gave ether. I made an incision four inches long and about two inches to the right of the middle line, beginning at the edge of the ribs, and inclining slightly inwards towards the umbilicus. Having carefully secured all the bleeding points, I opened the peritoneum,

and found that there was no adhesion of the liver to the wall, and that I had exposed healthy liver tissue. Into this I passed a large sized aspirator needle, and evacuated a few teaspoonfuls of clear serum. Removing the needle I passed my knife into its track, and made an opening large enough for my forefinger. I then found that the layer of liver tissue was from half an inch to three-quarters thick. I then fixed a pair of Kœberle's catch forceps on each of the margins of the wound in the liver, and asked my assistant gently to draw them up as I enlarged the incision. This I did to the extent of about three inches, and the moment I freed my finger, myriads of transparent globes of all sizes, from a pea to an orange, shot out, covered the table and floor, and were afterwards picked off the floor all over the room. When the tension was relieved, I dug them out with a large silver gravy spoon, and this process took much more time than the whole of the rest of the operation, and during its performance, Mr. Harmar most skilfully prevented any cysts entering the peritoneal cavity, by keeping the flaps of the liver close against the abdominal wound. Finally, I perceived that my gravy spoon was causing some haemorrhage from the inside of the cavity which had no kind of lining membrane, and I had to leave a considerable quantity of cysts in the cavity. In the cut surface of the liver, two bleeding points gave me some anxiety, but I closed them temporarily with Kœberle's forceps, and finally secured them in the stitches. These I applied by a common short needle and piece of silk in the continuous method, fastening the wound in the liver, through the whole thickness of the tissue, to the wound in the abdominal wall, so as effectually to close the peritoneal cavity; I then fastened in a wide glass drainage tube eight inches long. The quantity of hydatid cysts evacuated was estimated at two gallons.

Patient rallied well and seemed to suffer nothing from shock. Her sickness ceased immediately after the operation and did not return, and her breathing became at once relieved, so that she could lie flat on her back, or on either side.

I saw her again on the 19th, without a bad symptom, eating well, entirely free from pain, and with the hepatic dulness contracted to almost normal limits. A large number of cysts had come through the tube daily with the discharge, which was finally tinged with bile. Dr. Pike washed out the cavity twice a day with weakly carbolized water. Fragments of cyst continued to come away for about a month, and now (October 17) there has been hardly any discharge at all for a fortnight, and nothing remains but a sinus.

Dr. Pike notes that one day during the syringing out of the cavity, she had a sharp, sudden pain passing round from right to left. This lasted some three or four hours, and after that about half

a pint of bile was passed from the wound, and the pain gradually ceased. The patient herself writes that she feels now quite well, and is able to walk about alone, not quite eight weeks after the operation.

I have only to say that Listerian precautions had no share in the success of the operation. All their formalities were carried out with the assistance of plain cold water, and a spray of about one in a hundred, which most of the time was not on the wound. Since then I have employed water only for the spray, without carbolic acid at all, and my results have been quite as satisfactory as with Listerism.

2. J. D., æt. 56, Feb. 5, 1881. Dr. Hadley favoured me with the following notes: He saw J. D. August, 1879, when he had an attack of severe illness which was regarded as due to the passage of a gall-stone. In January, 1880, a large tumor was discovered occupying the whole of the epigastrium, right hypochondrium, and extending downwards into the right iliac region. The tumor had an indistinct fluctuation. During 1880 the patient became greatly emaciated, passed generally clay-colored stools, and frequently had his urine deeply tinged with bile. In December, 1880, the cyst seemed to find an opening into the intestine, for the tumor became greatly diminished in size, and the patient passed large quantities of brick-red fluid from the rectum. After this discharge the cavity seemed to refill in a few days, and the process was repeated at intervals. In January, 1881, the process of emptying seemed to cease, and it was proposed to tap the cyst, but on account of the presence of intestines all over the front of the tumor it was deemed more prudent to have an exploratory incision made. Feb. 6, I performed the following operation, the ether being administered. I made an incision about three inches in length over the tumor in the axis of the right rectus muscle, and about three inches to the right of the middle line, beginning about two inches above the level of the umbilicus. The peritoneum was easily reached, but there I found intestines and omentum glued everywhere over the surface of the tumor, and I had to exercise much care in dissecting them off so as to clear a part of the cyst about two square inches in area. There was, however, no adhesion between the parietal layer of peritoneum, and the subjacent intestines. I then passed my small sized trocar into the tumor and evacuated seven and a half pints of dark bilious colored fluid. When the cavity was emptied completely I enlarged the opening made by the trocar so as to admit two fingers, and came at once upon a loose mass which I removed, and which proved to be a slough of liver tissue weighing about one ounce. I then stitched the edges of the wound in the liver to those of the wound of the abdominal wall, and fixed in a glass drainage tube. The cyst was

clearly the liver itself which had been distended into a shell with apparently a pretty uniform thickness of about half an inch. The fluid removed was carefully examined by Dr. Saundby, the pathologist to the Woman's Hospital, and found to consist of nearly pure bile mixed with pus.

No effort was made to conduct the treatment upon Mr. Lister's principles. The glass drainage tube was left in for about a fortnight, and then a piece of rubber tube replaced it. The temperature and pulse curves were almost normal, patient's appetite rapidly improved, and March 30th there was very little discharge from the drainage tube, and he had gained 14 pounds in weight in seven weeks. (P.S.—He has gained 42 pounds since the operation, September 16).

3. L. B., æt. 25. She had been married four years, but had never been pregnant. Her illness began with a sudden attack of pain at the seat of the swelling, in September, 1880, and since then the tumor had steadily grown. The nature of the tumor was doubtful. It was in the position of the right kidney, was movable but had an attachment above, which suggested an origin from the liver. No distinct fluctuation could be discovered in it. February 9, I made an abdominal section, and found it to be a hydatid tumor of the liver, which had no adhesion to the abdominal wall. I opened the capsule, which consisted of a layer of liver tissue, about one-fourth of an inch in thickness, and scooped out the hydatids with a dessert spoon. They were of various sizes, from a pea to a small orange, and amounted in all probably to a pint and a half or two pints. I was very careful to cleanse out the deep cavity in the liver very thoroughly, and Mr. Harmar very skilfully kept the edge of the hepatic wound up out of the abdomen, so that none of the parasites escaped into the peritoneum. The wound in the liver was stitched to the wound in the abdominal wall, and a glass drainage tube was fastened in. The after progress of the case was uninterrupted recovery, no effort being made to conduct its treatment on Mr. Lister's principles.

4. E. P., æt. 21, unmarried, August last, for an abdominal tumor. This I recognized at once to be an enlargement of the liver, and unhesitatingly made a diagnosis of hydatid disease. Her illness began in April, 1880, with an attack of violent bilious sickness, followed by pain in back, and right side. The enlargement was noticed within six weeks, and had steadily increased. Suffered from repeated attacks of violent bilious vomiting. The hepatic dulness extended from the fourth rib down to an inch below the level of the umbilicus, and from the spine round to four inches across the middle line in front, and distinct fluctuation could be felt in the tumor below the ribs. I kept the case under observation from August to February, during which period she increased two and

a half inches in girth over the lower ribs, and fell off markedly in health. The question lay between aspiration and hepatotomy, and this could be decided only by our being able to recognize which of the two varieties of hydatid disease my patient suffered from. No indication of this could be obtained, and having a growing distrust in aspiration for abdominal surgery, and an increasing confidence in abdominal section, I proceeded similarly as was done in the other cases. It turned out to be a large monocystic hydatid. The thickness of liver tissue through which I passed was nearly an inch, and I had a little trouble with hemorrhage, which was, however, completely controlled by pressure. I fixed in a wire drainage tube after having united the edges of the two wounds, and replaced it by a soft rubber tube at the end of a fortnight. This latter tube I finally removed April 13th, and on the 19th the wound was almost healed, the patient was getting about, eating well, and rapidly gaining strength. Possibly in this case it might have been better to have tried aspiration first, and that may be the opinion of some. I do not agree with this however, and I see no reason to regret my action. I am growing more and more satisfied that all such cases will be best treated by abdominal section. (P.S.—This patient also is now in perfect health. I have operated upon three other cases of hydatids of the liver, in exactly the same way, and all have done well, September 16, 1881).—Lawson Tait, M.D., *Birm. Med. Rev.*—*N. Y. Med. Abs.*

PRACTICAL OBSERVATIONS ON OVARIOTOMY.

BY DONALD MACLEAN, M.D., ANN ARBOR, MICH.

Having for some years past devoted a good deal of attention to the subject of ovariotomy, I had much pleasure in meeting with Dr. Thomas Keith of Edinburgh last year, and in seeing him operate on several cases, and I have to acknowledge my indebtedness to that distinguished surgeon for numerous valuable suggestions which I have since adopted in my practice and which I am desirous of communicating for the benefit of others. Within a period of nine months I have performed ten ovariotomies and previous to that time I had done sixteen. Of the last ten cases, ten recovered. In the management of these ten cases I have to some extent tested several of Dr. Keith's methods and appliances and am convinced of their great value.

First of all I desire to say that in my opinion the operation in question requires for its successful performance so much surgical experience and dexterity, such carefully arranged surroundings, so

many appliances and such perfect preparations in all respects, that its practice should be confined to a comparatively limited number of surgeons who should be in the truest and best sense of the term *specialists*. Of late years I am sure that the operation has been notoriously abused in this and other states. It would be an easy matter to collate a long list of unpublished cases operated upon under circumstances which rendered success an exceedingly remote possibility, and in which, as a matter of fact, the rate of mortality is almost one hundred per cent. Unless a surgeon is so situated as to give him points of experience, surroundings and equipments, special advantages for performing ovariotomy, justice to all concerned, demands that he should refrain from recklessly attempting to gratify his personal ambition at so great a risk to his patient's life.

The remarkable success of certain celebrated ovariotomists, has been attributed to the cautious manner in which they have selected their cases, declining to operate whenever the difficulties and complications of the case have seemed to endanger the chances of success. My own conviction is, that the care and thoroughness with which they prepare themselves and their patients, in each and every instance, furnish the true explanation of their success, and I am sure that their example has not been followed as universally as it ought to have been. The practical points which I wish to refer to more particularly at present are the following :

(1) The anæsthetic and its mode of administration ; (2) Antiseptics ; (3) Treatment of the pedicle ; (4) Management of adhesions ; (5) Drainage of the peritoneal cavity.

(1) *The Anæsthetic*.—In common with Dr. Keith and others I have generally used ether in this operation, but in my latter cases, chloroform. By the use of a very simple apparatus, I believe that chloroform may be used in ovariotomy and in all other operations with as much safety and satisfaction as any other anæsthetic. This apparatus consists of two parts : (1) an inhaler made by stitching a piece of canton flannel over a wire frame which fits like a small tent over the patient's nose and mouth ; (2) a dropper which consists of a two-ounce bottle with a perforated cork and two metal tubes, one of which merely admits air to the bottle, while the other permits the chloroform to escape drop by drop. By this means I believe that the greatest degree of safety is secured as well as the utmost economy of chloroform.

(2) *Antiseptics*.—In the cases of ovariotomy which I saw Dr. Keith perform he used all the Listerian antiseptic appliances. I could see, however, that he was beginning to doubt as to its expediency. He assured me that he had seen patients die with "brutal haste" from carbolic acid poisoning, and I believe that I can say the

same myself. Since then (as is now well known), he has laid carbolic acid aside to a large extent, if not entirely, and prefers to trust to the careful arrest of hemorrhage and the thorough drainage of the peritoneal cavity. My own limited experience hardly justifies me in expressing a decided opinion on this important point, but, unless there are special reasons for doing so, I shall not hereafter resort to the use of the carbolic acid spray, against which several serious objections have been justly urged. My belief is that by exercising due care in arresting hemorrhage, sponging out the peritoneal cavity till it is absolutely dry, and in making provision for the escape of effused fluids, the danger of septicæmia is sufficiently provided against. Blood poisoning has occurred in spite of all antiseptic precautions, and it has been escaped in cases not treated antiseptically, and in which the circumstances seemed highly favorable to its development.

(3) *Management of the Pedicle*.—In my sixteen cases I had transfixed the pedicle with a double ligature and tied it in two halves, cutting the ligatures off short and dropping the pedicle into the pelvis. So far as I know, this method of treating the pedicle proved satisfactory. I have never seen any bad results follow from this source. Nevertheless, Dr. Keith's method has seemed to me to be, although somewhat slower, still on the whole, much more safe and satisfactory. He first of all seizes the pedicle in one or two pairs of strong forceps with a catch in the handle. If the pedicle is narrow, one pair ; if broad, two ; so that the vessels are safely controlled for the time. He then cuts away the tisnor, and applies his clamp to the pedicle on the cardiac side of the forceps, which latter he then removes, leaving at least one and a half inches of the pedicle projecting beyond the clamp. To this projecting part of the pedicle the actual cautery is applied in the form of a solid mass of iron at a black heat, which slowly sears and shrivels up the tissues of the pedicle. This part of the procedure is conducted with the utmost care and deliberation, and is sometimes the longest part of the whole operation. The clamp is formed of two solid metallic bars furnished with a screw by which they are made to compress the pedicle with great tightness. There are also two wooden handles to the clamp by which the surgeon holds it in his left hand while he applies the cautery with his right. During this part of the operation the peritoneal cavity is filled with soft sponges, and the edges of the wound are held in apposition by the hands of an assistant. Between the abdominal wall and the lower surface of the clamp, a pad of wet cloth is placed to ensure its thorough protection from the action of the cautery. The pedicle is gradually shrivelled up and the debris wiped away until all of the pedicle external to the clamp is disposed of. The latter is then unscrewed and removed while the surgeon takes

care to retain control of the remainder of the pedicle until he has carefully examined it and satisfied himself that there is no tendency to bleeding. If there is any doubt on the point, the pedicle should be transfixated and securely tied, either with strong catgut or a silk ligature. All danger of hemorrhage being in one way or the other guarded against, the pedicle is permitted to subside into the pelvic cavity.

(4) *Treatment of Adhesions.*—The only point I wish to note on this part of the subject is the vital importance of securing every point that shows the slightest inclination to bleed. Much patience and perseverance are sometimes required for this part of the operation, but it is impossible to overestimate its urgent necessity. The best ligatures to use, in this situation, are those made of carbolized catgut. They are, of course, cut off close to the knot.

(5) *Drainage of the Peritoneal Cavity.*—The only method of drainage now resorted to is that by means of a glass tube, the lower end of which rests in the Douglas cul de sac, while the other projects through the lower end of the wound in the abdominal wall. The drainage tube may often be dispensed with, and the operator will always be glad to omit its use when he feels that he can do so with safety. In cases where there is any prospect of extensive effusion, especially if there is any reason to fear oozing of blood, the drainage tube is *indispensable*. It was first used by the late Professor Peaslee, but at least one fundamental alteration has recently been made in his method of using it. Peaslee kept a plug of carbolized cotton in the mouth of the tube, and he removed this from time to time and allowed the accumulated effusions to escape. Now, the effusions are not permitted to accumulate, the mouth of the tube is always kept free and the effusions are provided for by the application of a large, soft carbolized sponge over the end of the tube. The sponge is enveloped in a sheet of rubber cloth which has a hole in its centre through which the end of the drainage tube projects. The fluids are thus caught in the sponge, and at stated intervals the nurse unfolds the rubber sheeting and replaces the saturated sponge with a clean one. In this way the fluids are got rid of as soon as secreted, and at the same time their quality and constitution afford valuable information to the surgeon. Just as soon as all appearance of effusion has ceased the tube may be removed and the opening closed with a hare-lip suture. This will sometime occur as early as the fourth or fifth day. If the discharge from the tube presents any sign of becoming purulent, the peritoneal cavity may be washed out with a weak solution of carbolic acid and common salt; a drop or two of the former and five grains of the latter to a pint of water at a temperature of 100° Farenheit. This is an expedient which in my

experience never fails to afford material relief and comfort to the patient.—(*Physician and Surgeon*).

RARE COMPLICATIONS AND SEQUELÆ OF TYPHOID FEVER.

The Boston Med. Journal of Dec. 15th, contains the following interesting clinic by Dr. Da Costa, of Philadelphia.

I will to-day group together for you a series of cases of typhoid fever, which show a few rare complications and sequelæ. Perhaps some of the peculiarities of this affection may be best illustrated by the following specimens taken from a case that perished during the height of the disease:—

CLINICAL HISTORY AND MORBID ANATOMY OF TYPHOID ; EXAMINATION OF THE HEART.

These specimens were taken from the body of a man who died in the wards a few days since of typhoid fever. His case was looked upon as hopeless from the beginning, for reasons which the autopsy has fully demonstrated to have been correct. His name was James Y., born in England, thirty-nine years of age; he was admitted into the hospital on the fourth of this month with diarrhoea. The record states that he had then been ill for nearly a month. He was a machinist, and had only been in this country a few months. At the beginning of his illness, it is said, that there had been no chill, the onset of the fever was gradual, but diarrhoea was a prominent symptom; he also had bilious vomiting, frequent epistaxis, and severe headache. Upon admission he had a dry cough, fever, and diarrhoea, his stools were thin, yellow, and frequent, so frequent that he had ten during the first day. From the first he had been troubled with a symptom which always makes one solicitous about a case,—he could not sleep; his temperature was 104 6° F.; the pulse was, however, only beating 80 in the minute; it was compressible and very weak. Upon examining his chest, we found slight dulness existing beneath the angle of each scapula. There was a good deal of hypostatic congestion in both lungs posteriorly, with coarse rales very generally distributed. But what struck us most forcibly, and what indeed made us think the case one of the greatest gravity, and most likely to prove fatal, was the state of the heart, the sounds were muffled, the first was only with difficulty detected; every now and then, about every second or third beat, there was a most marked intermission.

In consequence of his general condition and weak heart he was at once placed on stimulants, at first wine, subsequently whiskey, gradually increased to twelve ounces in twenty-four hours, with four ounces of sherry wine. He was also

steadily given strychnia, one sixtieth of a grain three times a day, in view of the fact that the great danger was going to be a failure in the action of the heart. This proved to be true; for while he remained weak, and was suffering with restlessness, delirium and tremor, the gravity of the symptoms was not so much due to the effect upon the nervous system of the typhoid fever poison, nor to the state of the bowels,—for the diarrhoea was readily kept in check with mineral acids and a little opium, in the form of suppositories,—as to the weak and irregular action of the heart, which indicated grave disorder of the walls of the heart. Towards the end it became somewhat more regular, but it remained weak. I ought to state, also, that about five days before death there was a slight but not excessive epistaxis. The temperature all the time remained high, and on the day before death was 105° F. I will now invite your attention to the specimens.

Let us first confirm the diagnosis of typhoid fever by examining the intestines. Here is the cæcum, here the ileo-cæcal valve. Besides the great ulceration of Peyer's patches, these solitary follicles are in the same condition. Passing up the bowel, we find patches infiltrated, and with only superficial erosion, a condition not incompatible with recovery; others more affected are ready to slough away. The kidneys are large, somewhat fatty. There had been no albumen in the urine during life, and this fatty condition must be looked upon as due to a cause antecedent to the occurrence of the fever; it is not the form of renal degeneration which is often found in typhoid. Look at the spleen. As the intestinal ulcers were characteristic, so this spleen is characteristic. It is very large and full of blood, weighing twenty-five ounces; it constitutes a lesion almost as essential as that we have just seen in the bowel. This is the large dark spleen of typhoid fever, the currant-jelly spleen. The lungs show very marked evidence of hypostatic congestion at the posterio-inferior portions, but there is no true pneumonia; the tissues crepitates, it is not infiltrated to the extent of consolidation, but simply engorged with blood, the congestion we recognized during life. The liver also very large, weighs sixty-four ounces, at least fourteen ounces more than normal, it is dark-colored and exudes dark blood on section. The heart is fatty, the walls distinctly so. The leaflets of the tricuspid valve are healthy; those of the mitral valve are slightly thickened, especially at their free border, but were not sufficiently affected to permit mitral regurgitation during life. Now why did this man die? I believe it was from the fatty heart. Of course it was a hard case in itself, the temperature indicated that; it was, you recall the record, 104° F. to 105° F. The marked nervous symptoms also, which he presented,—the tremors, depression, and sinking down in bed, always

indicate gravity; but with the condition of the heart these made the prognosis especially bad. There can be no reasonable doubt about one feature in the history, although the man was unable to give a full account of himself, yet the fact I refer to is confirmed by these appearances, the man had been very intemperate. The liver and kidneys show the intemperate habits of the individual. The same cause may have had much to do with the weakness of the heart, and the degenerative condition of its walls.

REMARKS ON SLOW PULSE IN TYPHOID.

Before passing to the next case I will make some remarks upon one of the prominent clinical features of the disease, which the case will bring to your mind—the slow pulse. I have said that the pulse was only eighty when he was admitted, although the temperature was 104.6° F. I have also told you that it was intermittent. Now, gentlemen, look at the disproportion between the pulse and temperature, 80 and 104° F. Is this a good or bad sign? It is a bad sign. A slow pulse is not of itself of grave import in typhoid fever, for the case may be a very light one; but when the thermometer indicates a high temperature, then a slow pulse indicates danger. This is so true that when I find the disproportion existing between the pulse and temperature I know that I have so grave a case that in the vast majority of instances the patient will die. You may ask again, What is this slow pulse owing to? and why the irregular pulse? I attribute them in part to a peculiar influence of the typhoid fever poison; but largely to this,—it was acting upon a weak and fatty heart. It is a curious fact in fatty heart that in acute diseases, instead of becoming more frequent in its action, it becomes often slower. This is not an isolated case in my experience. I have known it to occur in pericarditis and other acute maladies. Therefore, a slow pulse in this case had to do with a condition of the heart which in itself is a cause of great danger.

But I should be giving you a wrong impression, if you have been led to infer, that in every case of slow heart, in typhoid fever, be it regular or irregular, this is the effect of a degeneration of that organ. That would be incorrect. I recall a case which I saw a few weeks ago, in a young man, too young to have fatty heart, where there was no question of intemperance, for he was perfectly free from bad habits; his pulse was 80, his temperature from 104° F. to 105° F., but the heart was not irregular as it was here. The slow pulse in the case I refer to was, therefore, not due to a fatty heart nor to any fault of the ventricular walls or valves, but to some peculiarity in the poison which prevented the heart from rising coincidently with the temperature. The case, after a long and desperate illness, proved fatal. Whatever be the ex-

planation, a slow pulse and a high temperature are among the most dangerous combination of symptoms of typhoid fever.

You will also be interested to learn—and I will now only call your attention to the fact, intending to return to it—that this man had epistaxis again only a few days before his death. Another case will furnish me with a better illustration to speak of this symptom.

A CASE WITH RECURRING EPISTAXIS AND PAROTID SWELLING.

I shall now show you a case of typhoid fever with most unusual complications, and one in which I have instituted a treatment, which has been followed by considerable success. This man has been in the hospital for seventeen days. His name is Emil B., twenty-seven years of age, a cooper; he is a German. He came into the wards a very ill man, having been sick for four weeks before admission with diarrhoea and weakness. He had headache, with a furred tongue, and vomiting, and yellow conjunctivæ, indeed, there had been what is roughly and loosely sometimes called "a bilious complication" in the case, but this was all over before we saw him. He also had epistaxis, which from his history had been very free and frequently repeated; in truth it was stated that he bled at the nose every morning for a while.

Upon admission the man was found to have typhoid fever, he was very pale, weak, and feverish, the thermometer indicating 104° F., his pulse was 120 in the minute. He had frequent but not exhausting diarrhoea. He was so weak that we placed him promptly upon stimulants and quinine; and for the restlessness which he exhibited, he was ordered an ice-cap, to be kept upon his head. The looseness of the bowels was quite marked, but what is of more importance, he lost control of his sphincters, and the copious frequent discharges were passed involuntarily so that it was difficult to ascertain the number of passages. Not to detail the features of this grave case besides the frequent pulse, high temperature, and diarrhoea, I will say, in brief, that the looseness of the bowels was kept in check with opium, the restlessness was also relieved by this agent aided by the ice; and with steady nourishment, and twelve ounces of whiskey daily, the man rallied, and what seemed a very bad case soon showed great improvement. How bad a case it was you may judge from the temperature chart. Here it is; 105° F. the first night, 105° F. the next, then 103° F., and after that gradually declining to 101.5° F.; then, suddenly, up shoots the temperature again and becomes 104° F., and this rise of which I am speaking, is found to be coincident with just the complication for which I wish to show you the case this morning. Look at it, or at least look at what remains to-day, for enough remains to identify it. See this dense par-

otid gland forming a considerable tumor on the left side at the angle of the jaw. This is a parotid swelling or a parotitis occurring as a complication of typhoid fever, and limited to one, for on the right side there has never been any such affection.

TREATMENT OF SWOLLEN PAROTID IN TYPHOID FEVER.

Now, gentlemen, this man, who was doing very well, when this swelling appeared seemed very ill, and the whole aspect of the case became more threatening; for this occurrence is one of considerable gravity. I will not dwell upon its pathology at present, but at once call your attention to the treatment instituted, a treatment which I have, in at least one case in this hospital, previously known to produce a remarkable result. It is the steady application of ice to the swollen gland. Mark you, the usual termination of this glandular inflammation in low fevers is profuse suppuration, long continued discharge of unhealthy pus, and a pyæmic condition; the state of the patient becoming more and more grave until he perishes from blood-poisoning or exhaustion. I have tried before now all methods of treatment, painting with iodine, the application of blisters, hot poultices, only to give them up as valueless. It then occurred to me that the steady local application of ice at the beginning might prevent this suppuration and the consequent exhaustion. We resorted to it as in the previous case, and the result was admirable. The swelling became less within twenty-four hours; the tenderness also was not so marked, the general condition much better. This was continued for several days with steady improvement. Yesterday, the resident physician, perhaps too soon, believing that the swelling was reduced and the inflammation over, suspended the ice treatment. Moreover, you observe that the temperature had gone down before that time from the effect of the ice, which acted as a general sedative. There was good reason then for interrupting the treatment, but what was the result? He has more swelling this morning. But we have not lost the good accomplished by the ice, merely the benefit of its continued use. There is no suppuration, the gland is hard, and tender, the surface red. I will resume the treatment, and unless I am very much mistaken, I shall be able to show you the case at our next meeting entirely free from this complication.

His pulse is now good, not over 100; his general condition decidedly improved; the bowels are under control, but still require looking after; he is having three or four stools a day, when too frequent he is given an opium suppository from time to time; he has more strength than before; his tongue is cleaner; the mental condition has been improving. Therefore the group of symptoms which were at first so marked are now in abeyance. Notwithstanding that this glandular swelling is

looked upon as a bad complication, I am disposed to continue his treatment for a few days longer; then if the condition is favorable, I will abandon it, and apply iodine. He now is taking tincture of iron, twenty drops four times daily, and eight grains of quinine, twelve ounces of whiskey (half ounce every two hours in milk) through the day, keeping the bowels in check with a little opium by the mouth or in a suppository, given as may be necessary. The man made an excellent recovery. Towards the end a slight amount of purulent discharge was evacuated from above the angle of the jaw, where the ice had not been well applied.

The complication I have shown you here is one of the very rare ones in typhoid fever. I have seen it very often in what is called typho-malarial fever,—that is to say for the most part typhoid fever with malarial complications.

PATHOLOGY OF TYPHOID PAROTITIS.

I am speaking from a large experience with the disease when I say that it is also not uncommon in typhus, but in typhoid it belongs to the rarest of its complications. I have told you already that its tendency is to suppuration, which makes the condition of the patient much graver. But, gentlemen, unless the size of the swollen gland is reduced by resolution, it is better for it to suppurate than to remain enormously enlarged. I remember a case of typhus fever where it was necessary to resort to tracheotomy to prevent suffocation from the mechanical pressure exerted by the mass upon the trachea. If it be found impossible to prevent suppuration with ice, then the next best thing would be, I say, to encourage free discharge to prevent burrowing and pressure upon the air-passages. I have spoken of its rarity, now what is the cause of this complication? It is an expression of blood-poisoning. It belongs to certain low forms of fever in which the blood becomes profoundly altered, and the wonder is that it is not more frequent in typhoid fever than it is. It results, moreover, not only from a septicæmic condition, but also in the pyæmic state, which is more often seen in surgical than medical cases. In the latter condition it always indicates great gravity. I have not conversed with surgeons upon this ice treatment of gland swellings in pyæmia to prevent suppuration, but will suggest it, as it may prevent an additional drain upon the system. I believe it deserving of further trial.

SOME UNUSUAL SEQUELÆ OF TYPHOID.

We are dealing this morning with bad cases and rare complications. I now show you another typhoid fever patient, who has been very ill, and could not be brought into your presence before; he is now improving so that I can show him without any risk to himself. I will, however, proceed at once to examine him so as not to detain him in the clinic-room; I will then make some remarks upon the case.

His name is Martin M., twenty-one years of age, of Irish extraction. You see he is very pale, frightenedly anaemic; his mind is now perfectly clear; he passes out his tongue when told; it is not very much coated, you are, perhaps, struck more with his pallor than with anything else; his pulse is feeble, and beats 110 in the minute, it has always been about 120; his bowels are now regularly moved once a day, or sometimes only every second day; he has no tenderness in the iliac fossa nor indeed anywhere in the abdomen.

MILK LEG IN TYPHOID.

But now comes one of the symptoms which made this so serious a case, and of which you will see sufficient evidence remaining to identify the clinical history. He has had milk leg of very bad character, a phlegmasia alba dolens. Look at it. Although the leg is markedly diminished from what it was, you will still see that the right leg is considerably more swollen than the left. It has been still more swollen and very tender on pressure; the pain on pressure now has also subsided, except immediately along the course of the saphena vein, which is large and of cord-like density.

PURPURA DURING TYPHOID.

This swollen leg has been one of the symptoms from which this poor man has been suffering, now happily declining; it was associated for a time with considerable pain in the thigh and in the calf of the leg, but he has also had something else. Look at this left leg. Just above the ankle and on the dorsum of the foot see the large petechial spots, dark blotches, now only seen in this situation, but about a week ago they were all over the body, large purple and black spots in the skin, which have now almost all disappeared.

There is another point to which I will call your attention, and then will let him go out. In addition this man's life was almost ebbing away by profuse and repeated bleedings from the nose, so much so that the only means we could employ to stop them was plugging the nose, which finally arrested the haemorrhage, which not only gushed from his nose but passed into the pharynx, and was swallowed, and afterwards vomited. This is a case of recurring epistaxis late in the disease. It was subsequent to these attacks of bleeding that these spots appeared all over the body, although a few had been observed before.

These are principal features of the case. I will now only make an examination of his heart. I tell you that there is no valvular disease; the first sound is still feeble and laboring, the second is clear; a systolic blood murmur is heard at the right base as well as at the left, but more at the right. There is also a certain amount of bronchitis, for a number of mucous rales are heard in the lungs. This completes our examination of this unpromising case, and he can be removed to the ward.

TEMPERATURE RECORD DURING OCCURRENCE OF SEQUELÆ.

Let us now study his temperature record. His temperature this morning is normal. I will now show you some of the most interesting temperature sheets [Each sheet contains the record for four weeks. REP.] it is possible to see. Look at this last one, see the enormous variations during the last two weeks, now down to 98° F. then shooting up to 105° F. This is not the course of typhoid fever temperature. Look at it; it begins at the end of the second temperature sheet, and here it is at its maximum. Now, the interesting part to us is that these temperature variations were accompanied by chills which were not influenced by quinine, and these temperature rises corresponded with attacks of epistaxis; during the last two instances this was noticed certainly.

This is not the temperature record of typhoid fever, certainly not the typhoid record of a man ill with typhoid, who has been in the hospital for eight weeks, and who has been sick at least nine weeks. It is, therefore, the record of these strange complications from which the unfortunate has been suffering. Milk leg, epistaxis, profound alterations in the blood, petechiae, and chills, the latter uninfluenced by quinine. What does it mean? It means that this man has been pyæmic. There has been septicæmia, milk leg, finally a pyæmic condition of the blood induced by the phlebitis, as shown by these irregular chills.

REMARKS ON EPISTAXIS.

This altered condition of the blood, which gave rise to this anaemia, was also the cause of the recurring epistaxis. Now, late epistaxis in typhoid fever as compared with early epistaxis is relatively very rare; it almost never occurs, although you have seen in this clinic to-day two marked cases which apparently prove the contrary. In the other case the epistaxis occurred within two or three days before death, but in this man it came on in the seventh or eighth week, when his life was threatened by the petechiae (purpura haemorrhagica). Gentlemen, epistaxis, as the rule, is an early symptom of typhoid fever, occurring prior to the decided development of the fever, or in the first week. Here you have had an illustration of how it may happen as a late complication, but when late it is a most dangerous one.

The treatment for the epistaxis, ergot, iron, locally and internally, was unsuccessful, until we finally resorted to the plugging of the nostril.

BLOOD CHANGES IN LOW FEVERS.

Finally, before dismissing this much-complicated case, I must say a word about the petechiae. Do petechiae belong to the clinical history of typhoid fever? Gentlemen, you may pass through a lifetime without being able to duplicate this case. These extravasations you will see in typhus or in

cerebro-spinal fever, but they are most rare in typhoid. They bespeak a condition of blood that is serious in its results, a state of dissolution to an extreme degree, occurring very late in the disease. I have seen this also in typho-malarial fever—which is still typhoid—as it occurred in the army in soldiers who had acquired the so-called Chickahominy fever; among those who were thus brought to Philadelphia I remember a number had petechiae.

PROGNOSIS OF CASE.

These are some of the leading clinical features, complications, and sequelæ of typhoid fever under rare conditions. This man has passed through a severe ordeal, but I believe that he will rally, and if we can get his blood in better condition I think we may now look for recovery. His temperature is once more normal, the milk leg is passing away, the chills no longer occur, nor the attendant phenomena that bespeak a condition of pyæmia from which he was once laboring.

His treatment now is fifteen drops of the tincture of the chloride of iron, with five of muriatic acid, which, formerly taken thrice daily, we will increase to four times a day. He also gets five grains of quinine each morning.

His chances are now fairly good; a week ago you would not have thought he had a chance. There were no difficulties of diagnosis here; the early symptoms of typhoid fever were marked, very marked; it was always a bad case. We found before the peculiar sequelæ appeared, that there had been also a strong history of syphilis, although there were not any strong syphilitic manifestations. I mention this because it belongs to the clinical history, not because it had any especial influence upon the course of the disease.

CARDIAC HYPERTROPHY AND RENAL DISEASE.

The problem of the subordination of cardiac hypertrophy to renal disease, when the two co-exist, to which so much discussion has been lately devoted, has engaged the attention of M. Straus of Paris, who has published in the *Gazette Médicale* a preliminary account of his experimental results. The difficulties of the problem of the relation of the heart to the kidney lesion depend upon the complexity of the morbid conditions present in the system. These are much simplified in an experimental inquiry, although the results thus obtained have not always been very decisive. It is difficult to preserve for long the life of animals after a lesion of both kidneys, and Straus has therefore contented himself with causing atrophy of one kidney by ligature of the ureter. Previous experiments of the same kind have yielded contra-

dictory results. Simon, Rosenstein, and Gadden observed no cardiac consequence; Beckmann, Grawitz and Israel, and Lewinsky found a resulting hypertrophy of the left ventricle. The experiments of Straus were made on twenty guinea-pigs, which were killed from four to six months after the operation. A pure hypertrophy of the left ventricle was found to be the invariable result. The average weight of the heart, for instance, in three cases was 2·76 grammes, while that of three healthy animals was only 2·25 grammes, and this although the average weight of the guinea-pigs operated upon was two hundred grammes less than that of those selected for comparison. The hypertrophy was uncomplicated by any degeneration of the muscular substance of the heart, and was apparently the direct result of the atrophy of the kidney, since the arterioles in various parts were examined and found to be healthy. Grawitz and Israel asserted that although cardiac hypertrophy might follow a renal lesion in old animals in which the other kidney did not sufficiently overgrow to compensate for the loss, this result was not to be obtained in young animals. This statement is disposed of by the experiments of Straus, since nearly all the guinea-pigs he experimented upon were young. Moreover, he was unable to observe any inverse relation between the degree of hypertrophy in the heart and kidney, such as should obtain if the conclusions of Grawitz and Israel were correct. In one of the cases in which the increase in weight of the heart was greatest, the remaining kidney had increased to at least double the normal weight. An objection which is often urged against the dependence of cardiac hypertrophy on renal disease is the absence of such hypertrophy in cases in which the kidney suffers in consequence of an affection of the urinary passages. But Straus relates, to show that hypertrophy may be found in these forms, two cases of women dying from uterine cancer which had compressed the ureters, and had caused dilatation of the pelvis of the kidneys and very marked renal lesions. In each there was considerable hypertrophy of the heart without any valvular lesion. In a discussion on this paper at the Société de Biologie an interesting and apposite case was related by Quinquaud. A man twenty-eight years of age was shot in the left lumbar region, and recovered after an illness attended with haematuria. At this time there was no hypertrophy of the heart, but distinct evidence of this was discovered two years afterwards. He died with symptoms of uræmia four years later. The left kidney contained an old abscess, the right was hypertrophied, and the heart was increased in weight to eighteen ounces in consequence of hypertrophy of the left ventricle. All the liquids of the body were found to contain a large excess of urea.—*The Lancet.*

November number of the *New York Medical Journal and Obstetrical Review* contains a "special article" by Dr. Andrew F. Currier, of New York, in which the various methods of removing the entire uterus for cancer, as practiced by Freund, Schröder, Czerny, and others, are reviewed, as well as the general question of the advisability of removing the organ. He thinks the advantages of the vaginal method over that of Freund (by laparotomy) are enormous—there is but one section of the peritoneum, the intestines are unharmed, there is a better opportunity to discover diseased tissue, which is most likely to be situated in the vicinity of the cervix, and, most important of all, the patients often survive, which is rare by Freund's method. But most patients are not likely to be benefitted by either of these serious operations; the most hopeful cases will be those in which the patients are warned of their danger in the early stages of the disease, and in such cases Schröder's supra-vaginal excision of the entire cervix is most likely to prove of service. This operation, while not so radical as removal of the entire organ, and hence not so efficient in cases involving the tissues above the internal os, is far less grave, and is, besides, more thorough than amputation of the cervix as it has ordinarily been done in the past. In those rare cases, however, in which the body of the uterus alone is involved, there is no alternative to laparotomy, either by Freund's operation or by some modification of it. As to drainage—a most important item in such cases—a perfect system seems impossible, but Bardenheuer's, although in the hands of others it has not fulfilled its author's expectations, affords as good results as any yet devised. As to the broad question of whether cancer of the uterus, and so cancer in general, can be radically cured, the author thinks the logic of events points to its approaching solution.

OBSTETRICAL EXPERIENCES.—Dr. David M. Williams, of Liverpool, in an abstract of 2,500 confinements, "chiefly among the comfortable middle classes," states that he considers the forceps a great boon, always to be used with comfort and safety, without injury to the mother, and in only one case did he find craniotomy necessary. For over twenty years he has introduced the forceps into the uterus, often saving the child by that means, when the os was very narrow, but dilatable. He had only employed chloroform in the first stage to overcome rigidity; in the second stage he often administered it till complete unconsciousness was produced, believing that the perineum may thus be frequently saved from rupture, an accident which will sometimes occur after every precaution. He has cured a complete rent, involving the sphincter, without operation, by rest, local cleanliness, and the induction of temporary constipation by opium. He trusts in ergot especially as a pre-

ventive of flooding in cases where the pains are weak and the intervals long. He denies, on the evidence of distinguished travellers contrasted with the records of contemporary British practitioners, that puerperal mortality is the result of civilization. The truth is quite the other way, and by acting on increased knowledge, more lives will yet be saved.

—*British Medical Journal.*

FUNGOID ORIGIN OF DIPHTHERIA.—Dr. Michael Taylor, of Penrith, in recording an isolated outbreak of diphtheria, expresses his belief in the influence of dampness as an exciting cause, and in the connection with that disease of certain fungi associated with dampness. Three children, living in the same house and occupying the same bed-room, were all seized with diphtheria last August, in a district then free from any epidemic. The house was very healthy until the water-spouting of its roof got out of order. A great rainfall in July caused one wall of the bed-room to become saturated, through leakage of the spouting, the paper on the wall facing a passage, between the apartment and a second bed-room, became sodden and separated from the plaster, and small clusters of a toad-stool (*Coprinus*) grew on the wall, as well as a fine thready bluish mould. The drainage of the house and its drinking-water supply were very good. Excepting near the damaged spouts, the house was dry; and it is remarkable that the three children slept several weeks in their warm cribs in the damp room without suffering in any way, and it was not until the fungi appeared that they were attacked with true diphtheria. This is in accordance with Professor Laycock's theory, that diphtheria depends on *Oidium*, or potato-fungus, for although in Dr. Taylor's case another vegetation was in question, there is fair reason to believe that the sporules of many kinds of fungus may not merely irritate, but directly infect the mucous membrane of the throat.—*British Medical Journal.*

NERVE-STRETCHING FOR LOCOMOTOR ATAXY.—Dr. Charlton Bastian has recently delivered a clinical lecture, at University College, on a marked case of locomotor ataxy, the symptoms of which he described very minutely. The patient was about forty years old, there was wasting of the muscles of the extremities, especially in the left leg and thigh; at length the movements of his legs became slow and jerky, after walking a few yards he would become exhausted and his legs would double up under him. Mr. Marshall cut down on the great sciatic nerve on the middle third of the right thigh and stretched it with his finger, pulling it twice upwards from below, thence twice downwards from above; antiseptic precautions were employed. About five weeks later, the right lower limb having markedly improved, whilst the left remained as it was before the right sciatic

nerve had been stretched, Mr. Marshall operated on the left sciatic in the same manner. Troublesome diarrhoea followed, but seven weeks later when the patient tried to walk, his gait was found to be much better, and tactile sensibility, previously impaired in the lower extremities, had become perfect. The first operation was followed, in seven days, by the disappearance of a constant aching pain in the hypogastrium, which did not return, though slight pain was felt in the lower part of the chest. In a less advanced case treated in the same manner the improvement was but slight. The wounds in these cases were slow to heal. Dr. Bastian does not attempt to explain the mode in which nerve-stretching acts, but if it is found to do good, it should be practised. The manner by which many drugs act specifically on many morbid processes is quite unknown, yet that is no reason for not continuing their use when they are known to be beneficial in disease, and the same principle now applies to nerve-stretching.—*British Medical Journal.*

PROLAPSE OF THE BLADDER, AND RUPTURE OF THE PERINÆUM.—Lena P., twenty-six years old, and a native of Germany. She has been married eight years, and has had three children, but no miscarriages. The last child was born six months ago.

How long have you been sick, Mrs. P.? "Six months." Have you never been well since the birth of your last child? "Yes, I feel well sometimes, but I cannot do my work any longer." Why cannot you do your work? "Ever since my baby was born my womb keeps coming down outside of my body, and prevents me from working as I used to."

Here, you see, we have a diagnosis given us at once, but, as is very apt to be the case under such circumstances, it is not correct. The uterus, I find, has never been down at all.

What else troubles you? "Pain in the back and great distress in the lower part of my stomach." Do you suffer from anything else? "I feel just like fainting sometimes, because I am so very weak." Have you any trouble with your bladder? "No, but I notice that when I pass my water the womb always goes up, though it comes down again afterwards." Do you have to get up at night to pass your water? "No."

From the appearance presented when I first looked at the vulva of this patient, I supposed that the uterus was in reality out of the body, as she stated; but as soon as I touched the supposed uterus with my finger, I found that the mass yielded, and that instead of having prolapsus uteri to deal with, there was prolapsus of the anterior wall of the vagina with prolapsus of the bladder as well. In addition, the examination revealed that the patient had also lost her perineum; and hence

it is that the bladder, having been deprived of its normal support, has fallen down in this way, until it is practically entirely out of the body.

But what gives all this pain in the back and the great distress of which the patient speaks? In pursuing my investigation of the case I found, furthermore, that the uterus was completely retroflexed; the cervix being felt very high up, and the fundus down behind it. I thought at first that the latter might be a fibroid (but soon found that it was not sufficiently hard for that), and then that it was a small ovarian cyst which had slipped down into Douglas's cul-de-sac. When I resorted to conjoined manipulation, however, I at once found that the body of the uterus was not in its normal position, and the passage of the sound showed that there was complete retroflexion of the organ. If the diagnosis of prolapsus uteri had been taken for granted here, and a pessary appropriate for that condition ordered, it would have done harm instead of benefitting the patient. A pessary for prolapsus can do no good where there is retroflexion of the uterus, and this is altogether the most marked case of retroflexion that has been at the clinic for at least a year.

The question now comes up, Has all this trouble come on since the birth of her last child, six months ago? I think not; for it is much more probable that the prolapsus of the bladder was the result of her first labor, six years ago. The retroflexion, however, I believe must have followed the last one, six months ago; because it is so extremely marked that I can scarcely see how it is possible that so many conceptions should have occurred with the organ in this position.

This patient, I believe, can be cured; but it will be a very troublesome case to treat. What shall we do first here?—restore the perineal body? If we do, we shall most certainly fail in curing the patient; because this bladder, instead of being of the normal size, is now three times as large as it ought to be, and it cannot be satisfactorily supported in its present condition. The only proper way to proceed here is to begin by reducing the size of this organ, and this can be done most simply by taking an ellipse from its walls, and bringing the denuded mucous membrane together by means of silver wire sutures. After the operation Sim's glass plug should be worn for a time in the vagina, and at the end of nine days the sutures should be removed. Thus having succeeded in markedly diminishing the size of the hypertrophied bladder, the next step will be to restore the perineal body by the usual operation; and the uterus, having then been replaced, should be kept in position by a pessary. When all this has been done for her the patient will imagine that she is cured; but in every such case you should beware of telling the woman that she can get along without wearing a pessary. I should think it would be folly two or

three years before the pessary could be safely abandoned in the present instance, because the uterus has completely lost its tone.—Dr. Thomas—*Boston Medical Journal*.

THE CURE OF VARICOCELE BY SUBCUTANEOUS LIGATION.—Dr. John Duncan, of Edinburgh, employs carbolized catgut for the radical cure of varicocele. The veins are separated from the artery and vas deferens, and a needle armed with catgut is thrust through at the point of separation; it is then reintroduced at the orifice of emergence, made to pass between the veins and the skin, and brought out at the original entrance; the two ends are then firmly knotted together and cut short; by traction on the scrotum the knot is made to disappear entirely, and the punctures are covered with salicylic wool saturated with collodion. The same manœuvre is repeated an inch higher, and sometimes a third ligature is advisable. A hard lump of coagulum forms between the ligatures, tender at first, but soon diminishing in size and becoming insensitive. Dr. Duncan treats varicose veins of the leg in the same manner, the introduction of the point of the needle into the aperture of exit of the first puncture, and the tightening of the loop of catgut is difficult when there is brawny oedema; in such cases the patient should be kept at rest, and an India-rubber bandage applied for a few days. A single ligature is not sufficient, and to close the lumen permanently, two must be applied about one inch apart. It is essential that no branch be given off in the segment of vein between the ligatures.—*British Medical Journal*.

POTASSIUM BROMIDE IN ORCHITIS AND INFAMED BREASTS.—Dr. J. Grammer, M.D., says that, when consulted in time, he finds nothing else necessary, either in orchitis or milk breast, but potassium bromide, in five-grain doses, three times a day, or smaller doses, more frequently repeated. In advanced or complicated cases, of course auxiliary measures should be used, if only as a precaution, or to expedite the cure; but he has never had the bromide to fail him even when used alone. In orchitis, a suspensory should always be worn.

In some of these cases, he has seen the disease held in abeyance for weeks, when the patients, would persist in the grossest imprudence, in walking and horseback-riding. He rarely restricts them in diet. Yet even these cases eventually recovered, without suppuration or atrophy,—neither of which results has he seen since he has used this remedy.

He has had no opportunity to test it in the metastatic orchitis of mumps, but is sure it will prove as useful as in the ordinary cases; and though it is a specific inflammation, he expects to find it efficient in the next epidemic of parotiditis he may meet with.

Dr. Grammer has seen but one case of mammary abscess since he commenced the use of the bromide of potassium for such cases, and that case occurred not very long ago. The abscess had already pointed when he first saw it. He opened it, and prescribed potassium bromide, gr. ij, every three hours during the day; and in less than a week her husband reported the patient well. This, however, was not a fair test of the effect of the bromide on a mammary abscess, for there was no infant to complicate or irritate the inflammation. It was to Dr. Grammer a unique instance of the secretion of milk during pregnancy. The woman was four or five months advanced with her fourth child, and she stated that, being habitually rather irregular, she always recognized her pregnancy by the appearance of milk,—the secretion of which thenceforth continued.—*Virginia Medical Monthly*.

A NEW DISINFECTANT.—A cheap and useful disinfectant is a solution of chloride of lead. It is inodorous, effective, and its cost very small. It may be prepared as follows: Take half a drachm of nitrate of lead and dissolve in a pint or more of boiling water. Dissolve two drachms of common salt in a pail or bucket of water, pour the two solutions together, and allow the sediment to subside. The clear supernatant fluid will be a saturated solution of chloride of lead. A cloth dipped in a solution of chloride of lead and hung up in a room will sweeten a fetid atmosphere instantaneously, or the solution thrown down a sink, water-closet, or drain, or over a heap of refuse, will produce a like effect.—*Progress of Science*.

PYÆMIA AND SEPTICÆMIA.—Dr. Ambrose L. Ranney, in a lecture before the Anatomical and Surgical Society of Brooklyn, N. Y., gives his views as to the essential points of difference between pyæmia and septicæmia. Septicæmia he regards as a condition dependent upon a blood poison induced by the contact of decomposing animal matter with living tissues, and then carried by the lymphatics into the general circulation, and is never attended with so-called ‘metastatic abscesses or infarctions.’ The blood in septicæmia loses its coagulability, and rapidly decomposes when drawn from the body. A suitable soil for its development is any sloughing wound, especially connected with tissues well supplied with lymphatics.

Pyæmia he recognises as a blood poison brought about by the contact of a miasm with pus, and then absorbed by the blood-vessels, or, it may be the result of suppurative plebitis, either in an open wound or concealed traumatism. In either of these conditions there are always “metastatic abscesses,” and the blood of pyæmic subjects has the power of “spontaneous coagulation” in the smaller blood-vessels, thereby showing its current, and causing an embolic infarction, which may be

followed by a so-called metastatic abscess. In reference to the symptoms of these diseases, the onset is nearly similar, both are ushered in by a chill, while septicæmia generally has but the one chill, pyæmia has a succession of them. The temperature of septicæmia is higher than that of pyæmia, and of shorter duration, and nature attempts an elimination of the poison by a profuse watery diarrhoea.

The author's treatment does not vary much from that of others at the present time, namely, disinfection, drainage tubes, when necessary, and thorough ventilation, together with supportive treatment. He prefers “Platt's chlorides” in solution, one to six, or one to forty of water, rather than the disagreeable odor of the carbolic solution. He impressed his hearers with the importance of the general condition of the patient before an operation, a fact too often neglected.—*Annals of Anatomy and Surgery*.

FRACTURE OF THE PATELLA, TREATMENT BY THE WEIGHT AND PULLEY. (N. Y. MED. RECORD.)—At the Presbyterian Hospital, there are two cases of fracture of the patella under the care of Dr. Geo. F. Shrady, which are being treated by the weight and pulley. Both fractures are transverse, were occasioned, as usual, by muscular violence, and the fragments were separated three-fourths and one and one-fourth inch respectively. The limbs are elevated on a single inclined plane, and two strong, broad bands of adhesive plaster are applied diagonally to the anterior portion of the thigh, crossing each other just above the patella, and embracing a pad at the upper margin of the upper fragment. These bands terminate in loops on each side of the leg, and are attached to stout cords which pass to a foot-piece and over a pulley to the weights. The lower fragment is merely fixed by a bandage passed around the splint. Extension is made over the entire region of the quadriceps muscle, while the pad applies itself over the upper edge of the upper fragment, bringing it in apposition to the lower fragment. By these means the fragments are maintained in perfect apposition, without discomfort to the patient. Dr. Shrady prefers this method of treatment to any other he has employed.

AWKWARD MEDICAL POLITENESS.—A physician was called to visit a lady living at a considerable distance from him. After continuing his calls for some time, she expressed fear that it would be inconvenient for him to come so far on her account. “Oh, madam,” replied the Doctor, innocently, “I have another patient in the neighborhood, and I can thus kill two birds with one stone.”—*Chicago Medical Review*.

TREATMENT OF HÆMORRHOIDS.—Dr. Todd (*St.*

Louis Medical Courier, September, 1881,) says in regard to the treatment of haemorrhoids that the first step is the administration of a saline cathartic : the best is sulphate of magnesium. After this the following pill may be used :

- R. Ext. colocynth. co., gr. xxx ;
- Ext. nucis vomicae, gr. xx ;
- Ext. belladonnæ, gr. x.

Div. in pil. no. xl. One to be taken every evening on going to bed. More or less may be given, according to the effect produced, the object being to secure one full, soft evacuation daily,—neither more nor less. Relief from pain may be gained by the following :

- R. Iodoformi, ʒj ;
- Bals. Peruv., ʒij ;
- Ol. theobromæ et ceræ albæ, aa ʒiss ;
- Magnesia calcinat, ʒj. M. bene.

Fiat in suppositoriæ no. xij. Insert one after each evacuation of the bowels, or, if necessary ostener. Iodoform is a local anaesthetic of great power, and does not constipate.

Hæmorrhoids of long standing will only be benefited by this treatment, not cured. Dr. Todd's plan of radical treatment is as follows. All tumors found at the verge of the anus, and covered in part or wholly with integument, are clipped off with the scissors. If situated within the external sphincter,—the bowels having been moved with a dose of sulphate of magnesia given a few hours before,—the patient is placed over a vessel and directed to strain (a vessel filled with hot water is best). If the tumors do not come within reach in this way, the finger should be thrust into the bowel, provoking tenesmus, and the patient again be instructed to force the piles down. When within reach,—the nates being separated by an assistant,—the tumors are seized one by one with a forceps and held, while with the hypodermic syringe from five to ten minimis of a solution of nitrate of silver (one drachm to the ounce of distilled water) are injected into each, not stopping till all have been thus injected. No pain is felt except what is caused by handling parts rendered hypersensitive by protracted irritation.

One of the suppositories before mentioned may now be passed into the bowel, and thenceforth, if the treatment already given for removal of constipation may be followed up assiduously and patiently, little further inconvenience will be felt and no further treatment required. Even though the suppository be omitted, little pain is felt, and the patient goes at once about his business. The tumors immediately become hard, atrophy, and in about ten days have wholly disappeared. They can only recur from the cause which first produced them. Dr. Todd says that he has not had occasion to repeat this little operation in the same individ-

ual but once, which was in the case of an old gentleman, in whom tumors located higher in the bowel subsequently came down and were cured by the same means.

ACCIDENTAL ANTE-PARTUM HÆMORRHAGE.—Dr. Edward L. Partridge, of New York, Physician to the Nursery and Child's Hospital, contributes to the *New York Medical Journal and Obstetrical Review*, an article in which, after briefly reviewing the current doctrines concerning so-called accidental hæmorrhage preceding the birth of the child, he boldly challenges the expediency of the practice of rupturing the membranes. He believes, first, that rupture of the membranes does not meet the indications—i. e., it does not in itself or in its results offer any reasonable probability of checking the hæmorrhage—and, secondly that the method is highly dangerous from the increase of facilities for loss of blood, and because it adds to the difficulty and danger of the proper subsequent steps in treatment. The suggestion of Leishman to the effect that the placenta will be compressed between the uterus and the child after the escape of the liquor amnii, and hæmorrhage thus be checked, is, Dr. Partridge thinks, fanciful.

THE UTILITY OF STRYCHNIA AS AN EXPECTORANT.—J. Milner Fothergill (British Med. Jour.) says : The experiments of Rokitansky have shown that strychnia is a powerful stimulant of the respiratory centers, and I have arrived at the same conclusion from experiments upon rabbits. When the respiratory center was paralyzed by aconite the injection of strychnia exercised a most potent influence in restoring the circulation. I have used it clinically with much success, when the respiration was embarrassed, in acute bronchitis with difficult expectoration, in chronic bronchitis and emphysema, and when the right ventricle was dilated, it added to the efficiency of digitalis.

TREATMENT OF CYSTITIS.—Dr. A. J. C. Skene, of Brooklyn, gives the following, which he regards as almost specific in its influence, especially in the earlier stages, affording rapid and lasting relief : R. Acidi benzoici, sodii baboratis, aa grs. x. ; Inf. Buchu ʒij. M. Sig. This quantity to be taken three or four times a day. The diet should also be carefully regulated, and the skin and bowels kept in an active condition.—*Cin. Lancet and Clinic.*

PROF. CHARCOT is not so familiar with the English language as with the nervous system. At the meeting of the International Medical Congress several English and foreign doctors were discussing the style of apparel most suitable for a reception which was to come off that evening. Prof. Charcot quietly observed, "As for me, I shall go in my night-dress.—*Medical and Surgical Reporter.*

THE CANADA LANCET.

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TORONTO, FEBRUARY, 1882.

This Journal has the largest circulation of any Medical Journal in Canada.

PRACTICAL TEACHING.

The tendency of the teaching in the present day in all departments of science, is in the direction of the acquirement of a greater amount of practical knowledge, and the elucidation of all subjects capable of being demonstrated, by the use of practical modes and appliances. The use of instruments of precision, and the application of all known methods of observation and analysis, are being brought to bear on the solution of all difficult problems, both in nature and science. Men of science no longer grope in the dark when they have instruments of precision to aid them in searching for truth, and that they fully appreciate such aids in their labors is shown in the fitting up of costly laboratories for the work of instruction and investigation. Hence there have sprung up within a few years, schools of practical or applied science, physiological and pathological laboratories, &c., &c., where investigation and instruction go hand in hand. It must be conceded by all who have given any consideration to the subject of education, general or special, that, wherever practicable, this is the direction in which the training of the youth of the country should be directed. It has been well said by a great writer that the knowledge gained from books, however valuable, is of the nature of learning, but that gained from observation and investigation is wisdom. This is essentially true of all knowledge which is to have a practical outcome, and especially so in regard to the practice of medicine.

With a view to the practical instruction of candidates for the profession of medicine, in addition to the dissecting rooms for the acquirement of a practical knowledge of the anatomy of the human body, chemical, pathological and physiological laboratories have been established, some of them at great expense. In European countries great attention is being paid to the practical and clinical teaching of all candidates in medicine, and in our own country much has been, and is now being done every year, in the same direction. The medical authorities are thoroughly alive to the interests of the profession, and costly laboratories have been fitted up in McGill College and Bishop's College, Montreal, and also in Trinity Medical College, Toronto. It has been recently stated that an effort was about being made by parties interested in such a movement, to induce the Ontario-Government to establish a chair of Physiology in connection with the School of Practical Science in Toronto. The establishment of such a chair for the teaching of this department, so far as embraced in their curriculum, would no doubt benefit the arts students in University College, but would not, as things are at present, be of any general service to medical education, but rather a detriment, as it would furnish an excuse to any parsimonious medical college for not equipping itself with suitable apparatus for teaching practical physiology. So far as medical education in Toronto is concerned, Trinity Medical College has taken the lead in this matter, and has, at her own expense, fitted up a well-equipped physiological laboratory, to which additions will be made from time to time, until it is made second to none, either in Europe or America.

The teaching of the practical branches, such as practical physiology, biology, chemistry, and botany, requires special preparation, and necessarily involves considerable time, hence it cannot, in the interests of the medical student be profitably engaged in during the winter session, when so much didactic and clinical work are upon his hands. It would be well, therefore, we think, to make arrangements for the teaching of these branches during the summer months, and this movement would be greatly facilitated if the Medical Council at its next meeting were to add a summer course of three months to the present curriculum. The present curriculum though no doubt high for a com-

paratively new country, is yet much below what obtains in most European countries. In Great Britain the curriculum in medicine extends over a period of four winter sessions of six months, and two summer sessions of three months ; in Germany four years of nine and-a-half months each ; in Austria and Russia five years of nine months each, in France four years of ten months each ; Belgium five years ; Holland six years ; Italy six years of nine and-a-half months each ; Norway six years ; Denmark seven years, and Sweden ten years. The division of the periods of study in Great Britain is the one that seems best adapted to the genius of our people. Auxiliary faculties for the teaching of the classes during the summer months, might be appointed, and thus many meritorious young men would not only have an opportunity of bringing themselves into prominence, but also pass through a probationary period before being promoted, when found worthy, to vacant chairs in the main faculties.

We trust that the suggestions here thrown out, and the plan hurriedly sketched, may not be altogether lost sight of, as we sincerely believe their adoption, as soon as practicable, would be for the advancement of the best interests of the profession in Canada.

MEDICAL LIBRARIES.

We have before us the sixth annual report of the Boston Medical Library Association. Along with this report is also published the "Dedicatory Address" delivered by Dr. Oliver Wendell Holmes, of Boston, on the occasion of the dedication of the new building and hall of the Boston Medical Library Association, on December 3rd, 1878. The report and address contain much valuable information in regard to the formation of medical libraries in general, and much food for reflection in reference to the value of establishing such libraries in professional centres. This association, which is as yet in its infancy, having been only a few years established, has already become a permanent institution. The library contains upwards of 12,000 volumes, and is regularly in receipt of upwards of 280 periodicals. It stands sixth on the list of medical libraries in the United States, although founded as late as 1875. Much of the success is

due to the indefatigable efforts of the librarian, Dr. James R. Chadwick. The Hall, valued at \$20,000, is capable of seating two hundred persons, and is rented by all the medical societies of Boston for their meetings. The reference library contains over 10,000 volumes and nearly 6,000 pamphlets ; and the circulating library upwards of 2,200. There are also capacious and convenient reading-rooms, well supplied with the current literature of the day. Many of the volumes in the library have been donated to the association by members of the profession in Boston and vicinity ; some have been purchased from funds at the disposal of the association, and others have been obtained by way of exchanges.

The U.S. National Medical Library at Washington contains upwards of 60,000 volumes, and as many pamphlets, although only about fifteen years in existence. It is the largest medical library in the world. This rapid growth has been due to purchases, exchanges, and also in great part to the liberality and public spirit of many members of the medical profession in the United States. There are also two large medical libraries in Philadelphia and two in New York, besides others in various cities in the United States.

Dr. Holmes, in his dedicatory address, after alluding to the rise and progress of the medical associations in Boston, said "the time had arrived for a new and larger movement. There was needed a place to which every respectable member of the medical profession could obtain easy access ; where under one roof, all might find the special information they were seeking ; where the latest medical intelligence should be spread out daily, as the shipping news is posted on the bulletins of the exchange ; where men engaged in a common pursuit could meet, surrounded by the mute oracles of science and art ; where the whole atmosphere should be as full of professional knowledge as the apothecary's shop is of the odor of its mendicaments. This was what the old men longed for,—the prophets and kings of the profession, who

'Desired it long, but died without the sight.'

If such medical libraries are needed in Boston, New York, and Philadelphia, they are also needed, nay, urgently required, in Toronto, Montreal, Hamilton, London, and other large cities in Canada. The Hall of the College of Physicians and Surgeons in Toronto could be utilized with advan-

tage to the entire profession of Ontario for the formation of a medical library, and we have no doubt if it were formed, and a librarian appointed to look after the books, that many volumes now lying idle and covered up with the dust of years, would be contributed by some of the seniors in the profession for the general good. Others might also contribute magazines, periodicals, and recent medical books. A library to properly meet the need of our time, must contain an array of current medical periodicals, for these after all form the most attractive part of such an institution. The editors of the medical journals in Toronto and Montreal, we have no doubt would willingly supply a few periodicals and society reports from their exchanges, both home and foreign, which would aid materially in increasing the usefulness and value of this department. We would suggest to the Toronto Medical Society the propriety of appointing a committee to take this matter into consideration, and to report upon the best method of carrying the above suggestions into effect. We feel assured the medical council will willingly co-operate, as far as they possibly can, in any movement for the establishment of a medical library in connection with the College of Physicians and Surgeons of Ontario.

PRIVATE ASYLUMS FOR INSANE AND INEBRIATES.

The need of suitable private asylums for the treatment of a certain class of insane and inebriates is too apparent to require much comment at our hands. In all the larger asylums there is much danger from overcrowding, and besides, it cannot be expected that a large number of the patients under the charge of a Medical Superintendent and one or two assistants, can receive that share of personal and individual attention which may be obtained in a smaller Institution, hence, we are glad to find private asylums springing up in the United States and Canada, for the accommodation of those able to pay for their maintenance and treatment. Of course such Institutions should be, and are in some degree under Governmental supervision, as a guarantee of their suitability for the purpose aimed at, and of the integrity and good faith of those who undertake their establishment, as well as to ensure the confi-

dence of those who may place their friends under treatment. All asylums for the care of these unfortunate classes of patients should be made as pleasant, cheerful, and homelike as possible, and this homelike feature should be combined with all manner of innocent amusement. So far as we know there is but one private asylum for insane and inebriates in Canada, we refer to the "Belmont Retreat," Quebec. This institution has at the head of it Dr. Wakeham, a man of great experience in the management of the insane, and the building and surroundings are of the most desirable character. There are twenty-five acres of land in meadow, garden and lawn, which give employment to a number of patients, so that where the elements of cure do not exist, this at least makes their life pleasant and tolerable. The leading feature of this asylum is the treatment of insane, but the Superintendent holds a permanent licence from the Government to provide for a limited number of inebriates, and these are separate and distinct from the other patients. Several excellent institutions of this class exist in the United States, especially the "Shady Lawn," in Northampton, Mass., and "The Inebriates' Home," Fort Hamilton, L. I. The former is a private medical home for invalids, the treatment of lunacy, nervous diseases, ailments of women, and original methods of treating alcohol and opium habitués; and the latter is devoted entirely to the cure of alcoholism and the opium habit. Both gentlemen connected with these institutions, have had large experience in the special treatment of these affections, and may be confidently relied upon to do all that human skill can suggest for the relief of their patients. The patients treated at these asylums are of a higher social grade than the generality of those sent to the Provincial or State Asylums, and they enjoy a greater degree of retirement from the curiosity of the public than in the larger establishments. We would therefore commend these private institutions to the attention of the friends of those who are in a position to avail themselves of their benefits.

MEMORIAL TO THE HON. DR. ROLPH.—It is in contemplation to erect a memorial to the memory of the late Hon. Dr. Rolph in this city, if sufficient encouragement is obtained from his friends

and former pupils to warrant the undertaking. It is now twelve years since his death took place, at the advanced age of 83. For half a century his name was more or less familiar to the Canadian public. Owing to his long connection with medical teaching, and his pioneer labors in this direction, he was justly styled the Father of the Canadian medical profession. His body now lies in a neglected grave in the village of Mitchell, Ont., and it is, we think, almost a duty we owe to the memory of this great man, that his name should be perpetuated by some appropriate memorial.

Contributions with this object in view may be sent to this office, the receipt of which will be acknowledged in our columns.

OBITUARIES.—Mr. South, F.R.C.S., London, England, died on the 9th of January, at the advanced age of eighty-five years. Mr. South was for many years intimately connected with the College of Surgeons, having been elected to the Council in 1841, and served faithfully on all boards, courts, and committees. He was twice elected President. As an examiner he will no doubt be remembered by many as rather severe, and brusque in manner. It was through his efforts that the remains of John Hunter, which first found a resting place in the vaults of St. Martin's-in-the-Fields were re-interred in Westminster Abbey, and the inscription on the tablet in the latter place was from his pen.

The death of Prof. Draper, of New York, on the 4th of January, at an advanced age, is reported in our exchanges.

Nikolaus Pirogoff, the originator of the operation on the foot known as "Pirogoff's Amputation," died a few weeks ago in St. Petersburg.

Dr. Theodore Schwann, the eminent Belgian physiologist, is dead.

REMOVAL OF A CYST OF THE PANCREAS.—Dr. N. Bozeman reports in the *Medical Record* for January 14, 1882, the removal during life of a cyst of the pancreas, weighing $20\frac{1}{2}$ pounds. The case is interesting from the fact that it is the first operation of the kind on record. It was mistaken for an ovarian cyst. Five years ago the abdomen began to enlarge on the left side, and gradually increased until the entire cavity was distended symmetrically. Upon opening the abdomen the

uterus and ovaries were found perfectly normal, and upon careful examination the pedicle was found attached to the junction of the outer third of the pancreas. It was transfixated and tied in the usual way. The patient was discharged cured on the 38th day after the operation.

REMOVAL.—J. Stevens & Son, surgical Instrument makers, have removed to larger and more commodious premises, No. 40 Wellington St. East, Toronto. This firm is supplying a want long felt in this Province, and has already by strict attention to business and careful consideration of the general wants of the profession, built up an excellent business. Our confrères need be at no trouble or inconvenience in regard to obtaining surgical instruments or appliances, on the shortest notice. The gentleman at the head of the Canadian branch of the business is perfectly reliable, and a good business man.

LISTER'S DRESSING MODIFIED.—Dr. Little, *New York Medical Journal*, of December, 1881, gives the following as his method of treating wounds which he has found very satisfactory. The wound is first washed in a solution of carbolic acid of the strength of one in twenty; the parts are then covered with a thin layer of borated cotton, and a simple gauze bandage is snugly and evenly applied. These thin bandages distribute the pressure more evenly over the cotton, and are more easily saturated with fluids than those made of unbleached muslin. The patient is instructed to keep the outside of the dressing wet with a solution of carbolic acid of the strength of one to one hundred.

THE RIGHT TO BEAR ARMS.—Daniel Webster once took a young lady, a relative of his son's wife, to task for wearing short sleeves, and animadverted on bare arms. "Why, Mr. Webster," exclaimed the young lady, "I'm astonished that you, the great expounder of the Constitution, should object to bare arms!" "What has my expounding the Constitution got to do with it?" growled Daniel; to which the young lady replied: "Doesn't the Constitution say that the right to bear arms shall not be interfered with?" History does not record the effect of this shot, but Webster died that same year.

BORACIC ACID IN GONORRHœA.—Dr. A. J. Roe (*Mich. Med. News*) says he has treated a great many cases of gonorrhœa by means of boracic acid injections, and his results are very satisfactory. He employs the acid in the strength of ten grains to the ounce of water, morning and evening, after urinating. This treatment usually allays the inflammation, and relieves the pain and chordee, inside of thirty-six hours, and complete cure is generally effected inside of a week or ten days.

AMYL NITRITE IN OPIUM POISONING.—Dr. Turner in the *St. Louis Courier of Medicine* gives his experience in the use of amyl nitrite in two cases of opium poisoning. The effect of the amyl nitrite was to increase the number of respirations, and rapidity of the pulse almost instantly, and by continuing the inhalation at intervals for an hour or two, he had the satisfaction of seeing his patients recover.

INFANTILE ECZEMA.—The following mixture has been found very beneficial in the treatment of this perverse affection, viz : Oil of cajuput one drachm combined with one ounce of zinc ointment. Dr. Claiborne of Virginia (*Gaillard's Medical Journal*) discovered its value through a mistake by his druggist, who put it up in a mixture instead of oil of cade which was ordered. It cured the patient and many others since.

MEMORIAL TO ERICHSEN.—It is proposed by the friends of Mr. Erichsen, of University College London, to erect a marble bust of that gentleman, to be placed in the University as a mark of respect for his long connection with its Medical School.

APPOINTMENTS.—Dr. Charles O'Reilly medical superintendent of the Toronto General Hospital, has been appointed examiner in clinical medicine and surgery, for Toronto University, Dr. I. H. Cameron, in anatomy and surgery, and Dr. Ellis in Chemistry. The remaining examiners in medicine are the same as last year ; viz.: Drs. Eccles of London, D. B. Fraser of Stratford, and Geo. Wilkins of Montreal.

Dr. J. R. Kippax, formerly of this city, has been appointed on the acting staff of the Cook County Hospital, Chicago, in conjunction with five co-professionals, in accordance with the recent action of the board for dividing the appointments to this hospital between allopathic and homœopathic physicians.

Reports of Societies.

TORONTO MEDICAL SOCIETY.

Nov. 17th, 1881. The Society met at 8.30 p.m., the president in the chair. The minutes of last meeting were read and approved.

Dr. Macdonald showed a vermisform appendix, taken from a patient who, for some days prior to his death, had been suffering from localized peritonitis in the region of the cæcum ; the appendix showed two points of ulceration, with perforation, and in its interior it contained a hardened nodule of faecal matter, which was situated between the points of ulceration.

Dr. Nevitt mentioned a case of faecal impaction, where there was perforation, death resulting in 36 hours.

Dr. Cameron next showed a case of pseudo-hypertrophic muscular paralysis in a lad aged 11. He gave a detailed account of the family history, which showed that the disease could not be traced in any of the patient's ancestors or members of his own family ; the patient was quite well until about 3 years of age, after that there began to be loss of power, and feats of strength and agility which he could not perform, were easily accomplished by children of more tender years, while the excessive enlargement of the muscles of the calf was the subject of much admiration. The patient when placed on his back, has no power to regain the erect posture without assistance, and his mode of progression is peculiar, especially when he ascends the stairs. There is excessive prominence of the gastrocnemii and solei, while the muscles of the brachial region are somewhat wasted, and there is well marked lordosis.

The treatment adopted is by the administration of cod liver oil, syr. iodide of potash, and arsenic. The P. M. lesion is always the same in the muscles, but there is want of uniformity in the lesion in the cord.

The president then mentioned several cases which had recently come under his notice, among which were, 1st, a case of ovarian tumor, which was a multiple cyst, and contained about 50 lbs. of fluid in its interior ; 2nd, a gun-shot wound of the arm, in which there was no discharge from the track of the ball, the wound having been dressed under the spirit lotion. He also mentioned the beneficial effect hyoscyamine had in quieting patients suffering from acute mania, given in doses of

$\frac{1}{8}$ to $\frac{1}{2}$ grain, and also related the effects the dose of $\frac{1}{8}$ grain had upon himself.

Dr. Rosebrugh then read his paper on "Electricity in the Treatment of Special Diseases," a full report of which has appeared in the CANADA LANCET.

Dec. 1st, 1881. The Society met at 8.15 p.m., the president in the chair. The minutes of the last meeting were read and approved.

Dr. Going was proposed a member of the Society.

Dr. Oldright then showed a man who, eighteen months ago, had received a comminuted fracture of his right tibia and fibula in their lower third; six weeks after the accident, the fractured limb became swollen and oedematous, and some time afterwards the sound limb also became swollen. The case, as presented to the Society, showed great swelling and oedema of the affected limb, and an indolent ulcer on its anterior and inner surface. The patient is of temperate habits, he has no cardiac affection, and the urine, when examined shortly after the accident, was found normal. Dr. Oldright asked for a solution of the case, but an answer was wanting.

Dr. Graham next exhibited a girl, æt. 5, whose mode of progression was awkward and difficult, and the appearance simulated somewhat that of hip disease; the affection has always existed. Dr. Graham had seen three cases similar to this disease; tendon reflex, although absent in this case, is well marked in some. Drs. Canniff, Oldright, Cameron and others discussed the case.

Dr. Cameron exhibited a piece of gravel (about the size of a small castor-oil bean), which he had removed, after it had existed in the external auditory canal for two and a half years without symptoms.

Dr. Graham showed a piece of cotton wool which he had removed from the naris of a child, where it had been lodged three or four years, and in consequence of which the child suffered from ozæna.

Dr. Rosebrugh then read a continuation of his paper on The Uses of "Electricity in the Treatment of Special Diseases." Dr. Rosebrugh, of Hamilton, being present, made a few remarks upon the paper.

The Society then adjourned.

Books and Pamphlets.

TEXT-BOOK OF MODERN MIDWIFERY, by Rodney Glisan, M. D., Prof. of Obstetrics in the Willamette University, Oregon. Philadelphia: Presley Blakiston. Toronto: Willing & Williamson.

Obstetric text books are already as thick as leaves in Val Ambrosa, and by some, probably the *raison d'être* of a new competitor might be questioned. The author, however, believed that there was a demand for a work which should more thoroughly represent American obstetric practice, and most ably and pointedly has he accomplished his task. The work will deservedly rank high among the numerous treatises on the science and practice of Midwifery, embodying as it does all recent views and acknowledged improvements in practice. The young practitioner and also the more experienced, will find this volume a useful guide in the most anxious and responsible branch of the profession. The chapters on the anatomy of the pelvis, mechanism of labour, face presentations, haemorrhage before and after labour, and on other subjects, are clear and concise. The author, like most other American practitioners, inclines to the position on the back in delivering with forceps, applying the blades to the sides of the child's head, whether the latter be below or above the superior strait, arguing that although the application of the instrument to the sides of the pelvis has simplicity in its favour, yet in proportion to the favour it receives will be the decrease in the knowledge of the mechanism of labour by those who practice it. The work has been well brought out by Presley Blakiston, in binding, type and paper. The illustrations have been obtained chiefly from the works of Cazeaux, Meadows, Playfair, Leishman, Churchill and Hodge. Cloth, \$4.00; sheep, \$5.00.

ECZEMA AND ITS MANAGEMENT, by L. Duncan Bulkley, M.D., New York. New York: Putnam's Sons. Toronto: Willing & Williamson.

Sir Erasmus Wilson remarks, "That to be a successful practitioner in the treatment of eczema, a medical man must be an accomplished physician: to manage the local treatment with success he must also be an able surgeon. In a word the highest and best qualities of medical art and science must be put in practice with foresight and discretion for

the treatment of an eczema." The author of the above treatise has proved conspicuously that he is both, and in the pages of this work the general practitioner will find lucid and succinct descriptions of the various phases of the disease in question, as also guides to their recognition and management. The author has divided the subject into sixteen chapters, i. e., definition, frequency, symptoms, forms, diagnosis, nature, (constitutional or local) causes, treatment. Management of infantile, of the face and scalp, of the hands and arms, of the feet and legs, of the anus and genitals of the trunk. Diet and hygiene of eczema; therapeutics of eczema. Dr. Bulkeley, while contending for a constitutional origin, admits that it may become a local disease in its skin lesions, and as such may very largely be amenable to local treatment. We can heartily recommend this new addition to the literature of eczema to our medical brethren, being well assured that a perusal will greatly assist them in the treatment of this too frequent opprobrium medicorum. The book is well printed on fine paper, and is a credit to the publishers.

A TREATISE ON THE DISEASES OF THE NERVOUS SYSTEM. By William A. Hammond, M.D., Professor of Diseases of the Mind and Nervous System in the Medical Department of the University of the City of New York. With one hundred and twelve illustrations. Seventh Edition, rewritten, enlarged and improved. New York : D. Appleton & Co. Toronto : Willing & Williamson.

We have much pleasure in calling the attention of the profession to this revised edition of Dr. Hammond's well-known and popular work on nervous diseases. The present edition has been greatly enlarged and improved. The chapters on insanity have been omitted, for the reason that the author is now engaged in the preparation of a special treatise on this important subject. There has been considerable amplification of the chapter on cerebral congestion, a new chapter on myxedema, and others on syphilis of the brain, spinal cord and nerves, also a new section on diseases of the sympathetic nervous system. Material additions have also been made to the chapters on locomotor ataxia, progressive facial atrophy, chorea, epilepsy, neuralgia, etc. We regard Dr. Hammond's work as excellent authority on the subject of nervous diseases, and frequently refer to it in our study of these affections.

A MANUAL OF HISTOLOGY. Edited and prepared by Thomas E. Satterthwaite, M.D., President of the New York Pathological Society, Pathologist to St. Luke's Presbyterian Hospital, etc. With one hundred and ninety-eight illustrations. New York : William Wood & Co. Toronto : Ure & Co.

The author has associated with him in the work of preparing this book for the press, Drs. Thomas Dwight, J. Collins Warren, William F. Whitney, Clarence J. Blake, and C. H. Williams, of Boston ; Dr. J. Henry C. Sims, of Philadelphia ; Dr. Benjamin F. Westbrook, of Brooklyn, and Drs. Edmund C. Wendt, Abraham Mayer, R. W. Amidon, A. R. Robinson, W. R. Birdsall, D. Bryson Delavan, C. L. Dana, and W. H. Porter, of New York. The work, therefore, represents the combined wisdom of several eminent American histologists, each article being written by one who is considered an adept in his particular *rôle*. As a manual, it is full and comprehensive, the cuts numerous and tolerably accurate, and the directions for preparing and mounting, clear and easily followed. It will be found of great value to the student of histology, and we cordially commend it to all who desire to study this attractive branch of medicine.

THE APPLIED ANATOMY OF THE NERVOUS SYSTEM. Being a study of this portion of the human body from a standpoint of its general interest and practical utility, designed for use as a Text-Book and a work of Reference. By Ambrose L. Ranney, A.M., M.D., Adjunct Professor of Anatomy in the Medical Department of the University of the City of New York. New York : D. Appleton & Co. Toronto : Hart & Co.

In this work the author has endeavoured to bring before his readers the anatomy of the nervous system, associating with it a brief description of the diseases met with in connection with the structures affected and the symptoms which accompany them, the object being to fit the practitioner and student to pursue his studies in this special line without embarrassment. The treatment of nervous diseases is not touched upon. The work abounds with illustrations, some original, but most of them drawn from other well-known works. They are all well executed, and reflect great credit upon the publishers. The work is worthy of the special attention of those who are working up the subject of nervous diseases.

A TREATISE ON THE DISEASES OF INFANCY AND CHILDHOOD. By J. Lewis Smith, M.D., Clinical Professor of Diseases of Children in Bellevue Hospital Medical College, Fifth Edition, thoroughly revised, with illustrations. Philadelphia : H. C. Lea's Sons. Toronto : Hart & Co.

We gladly welcome to our shelves the new edition of this highly valuable, and deservedly popular work on diseases of children. The work has undergone a thorough revision, and some new matter has been added, notably a chapter on strumous ophthalmia. The author is very full and explicit in the matter of treatment, a most gratifying feature in modern text-books, in many of which too little attention is devoted to such details. We can confidently recommend this work a most reliable guide in the treatment of children's diseases. The new volume comes to us in the elaborate half Russia binding recently adopted by this well-known publishing house.

LECTURES ON THE DIAGNOSIS AND TREATMENT OF THE CHEST, THROAT AND NASAL CAVITIES, by E. Fletcher Ingals, A.M., M.D. New York : Wm. Wood & Co. Toronto : Willing & Williamson.

These lectures, thirty-two in number, are a valuable addition to extant works on the same subject. They set forth concisely, but very clearly, what is known on these diseases, and will be found both to practitioner and student, of great value in forming a differential diagnosis. The chapters on "Physical Diagnosis," "Percussion," "Auscultation," and "Heart sounds," are well calculated for teaching the young beginner exactness. The work is well written, and bears evidence of the writer being a master of the subjects discoursed on. The appendix contains a number of useful formulæ.

A PRACTICAL TREATISE ON HERNIA. By Joseph H. Warren, M.D. Second and Revised Edition. Illustrated. Boston : James R. Osgood & Co. Octavo, pp. 428. Price \$5.

This is a very carefully prepared text-book on hernia, practical, well illustrated, and rich in clinical details. The author has given the profession in the work before us not only a good digest of the literature on this subject, but also a mine of practical experience. Everything of value and importance connected with this subject has been embodied in this work, and therefore we heartily commend it to the attention of the profession.

LANDMARKS, MEDICAL AND SURGICAL, by Luther Holden, F.R.C.S., Eng., Consulting Surgeon to Saint Bartholomew's and the Foundling Hospitals. Assisted by James Shuter, M.A. Camb., F.R.C.S. From the third English edition, with additions, by William W. Keen, M.D., of the Philadelphia School of Anatomy. Philadelphia : Henry C. Lea's Son & Co. Toronto : Hart & Co.

Holden's Landmarks are well known and highly appreciated by the profession both in Europe and America, and the issue of the third edition fully attests its continued popularity. The additions by Dr. Keen of Philadelphia still further enhance the value of the work.

THE OPIUM HABIT AND ALCOHOLISM. A Treatise on the Habits of Opium and its Compounds ; Alcohol ; Chloral Hydrate ; Chloroform ; Bromide of Potassium ; and Cannabis Indica ; including their therapeutical indications. With suggestions for treating various painful complications. By Dr. Fred. Herman Hubbard. New York : A. S. Barnes & Co. Toronto : Willing & Williamson.

This work treats principally of the opium habit and alcoholism, a few chapters only being devoted to chloral hydrate, chloroform, etc. The management of this unfortunate class of patients, which seems yearly on the increase, is laid down with great care and precision, and the work contains much that will interest the general reader.

THE PRESCRIBER'S MEMORANDA. New York : Wm. Wood & Co. Toronto, Hart & Co.

This is an excellent reference book, and contains many useful and valuable hints upon disease and its treatment. It will be found very convenient for occasional reference.

Births, Marriages and Deaths.

At Adolphustown, on the 18th of December, 1881, Joseph Allen, M.D., aged 34 years.

On the 20th of Oct., Dr. J. B. Smith, of Jerseyville, Ont., aged 27 years.

At Norwich, on the 11th of Dec., Dr. Gabriel Lount, aged 43 years.

On the 11th ult., at Grand Haven, Mich., Dr. A. J. Whitehead, aged 29 years.

THE CANADA LANCET.

HYDROLEINE OR HYDRATED OIL AS A THERAPEUTIC AGENT IN WASTING DISEASES.

By W. H. BENTLEY, M.D., LL.D.,
VALLEY OAK, KY.

From *New Remedies*, September, 1881.

In October, 1880, I read an advertisement of Hydroleine in some medical journal. The formula being given, I was somewhat favorably impressed, and procured two pamphlets: One on "The Digestion and Assimilation of Fats in the Human Body," and the other on "The Effects of Hydrated Oil in Consumption and Wasting Diseases." They are ably written, and afforded an interesting study. Their doctrines are so reasonable, that I got up faith enough to have my druggist order a sufficient supply to thoroughly test the merits of the preparation.

I was ready to catch at anything to take the place of cod-liver oil. In my hands it has proved an utter and abominable failure in ninety-five per cent. of all my cases in which I have prescribed it since I have been engaged in country practice, and it never benefitted more than forty per cent. of my city patients.

The inland people, who seldom eat fish, can rarely digest cod-liver oil. Almost every week I am consulted by some victim of the *cod oil mania*, who has swallowed the contents of from one to twenty-five bottles, and who has been growing leaner, paler and weaker all the while, until from a state of only slight indisposition, these patients have become mere "living skeletons." Nearly all complain of rancid eructations, and an unbearable fishy taste in their mouth, from one dose to another. They not only fail to digest the cod oil, but this failure overloads the digestive organs to such an extent that digestion and assimilation of all food becomes an impossibility, the patient languishes and pines and finally dies of *literal starvation*. In the comparatively small number with whom I have found cod-liver oil to agree, it has proved very gratifying in its results. In my practice, by far the largest number receiving benefit from it have been children. Those who have, previous to their illness, been accustomed, to some extent, to a "fish diet," will be more likely to digest the oil, and more notably so in cold climates. Still the innumerable efforts that have been made in the shape of "pure cod-liver oil," "palatable cod-liver oil," "cod-liver oil with pepsin," "cod-liver oil with pancreatin," "cod-liver oil emulsions," etc., and so on, *ad infinitum*, attest the fact that the great *desideratum* after all is to render cod-liver oil capable of retention by the stomach, and digestible when it is retained.

As Hydroleine is partially digested oil, and this partial digestion is brought about by a combination of factors suggested by actual physiological experiments, these facts commend it to my confidence, and a trial of the preparation in seven typical cases convinces me that it possesses

a high degree of merit, and I feel that it is a duty incumbent upon me to call the attention of my medical brethren to the subject.

The first case in which I prescribed it was that of a married lady 28 years of age, a blonde, and the mother of four children, the eldest 9 and the youngest 1 year old. From the birth of this last child she dated her illness, for she made a tardy convalescence, remaining unable to walk for a month. Soon after she began to grow weaker, and soon resumed her bed, which she had not left to any extent since, not at any time being able to sit up longer than fifteen or twenty minutes. During all this time she was under charge of a skillful physician. He had tried many remedies to check the rapid emaciation; among these were several different brands of malt extract, cod-liver oil, and various mixtures of the oil. None of the oils and their mixtures agreed with her. In March, I was called and prescribed Hydroleine, a bottle of which I delivered at the time, directing her to commence with teaspoonful doses, to be gradually increased to twice the amount. It agreed with her finely, and by the time the first bottle was used she was greatly improved. She procured and used two additional bottles, and, at this writing, June 15th, is considered well.

The above case was one of general and persisting emaciation, unaccompanied by any cough or perceptible thoracic trouble. The ensuing case was one of diagnosed

TUBERCULAR PHTHISIS.

The patient a married lady, æt. 32, had been married about 14 years, and was the mother of six children, the youngest two years of age. Several of her sisters had died of the above mentioned disease. Her medical adviser prescribed cod-liver oil, and she had taken a full dozen bottles with plenty of whiskey. The oil had not been digested, although it had been retained by the stomach. Her cough had grown constantly worse, and she grew rapidly weaker, week by week. I prescribed Hydroleine for her, and she commenced to take it in April, about the 15th. It agreed with her finely. She rapidly gained weight and strength, her cough was relieved and has now nearly ceased. She has used nearly four bottles, and continues to use it, though apparently well.

I have prescribed it in three other cases, in two of which the results have been equally gratifying, but in the other case it produced nausea and greasy eructations.

From these trials I am led to think quite favorably of the hydrated oil, and I am led to believe that although it may not agree with all, it will be found of great and permanent benefit to a very large per cent. of consumption and other "wasting" diseases, and that it is destined, at no distant day, to very largely supplant the undigested oils.

HAZEN MORSE, 57 Front Street East,
TORONTO,
SOLE AGENT FOR CANADA.

THE CANADA LANCET.

TUBERCULOSIS RESULTING FROM DEFICIENT NUTRITION.

(From *The Medical Record*, New York.)

Various as are the opinions regarding the treatment of consumption, all writers concur in the belief that whatever measure is adopted, the strength of the patient must be husbanded with the greatest care, and the most efficient means employed to supply the system with that element which the symptoms indicate as being required to keep up the vitality while such course of treatment is being pursued as is considered suitable. The most striking indication of the presence of this dreadful disease is rapid loss of weight. The patient himself, prone as he is to disregard premonitory warnings of this insidious malady, cannot but observe an extraordinary difference in the appearance of his form, as first the face, then the trunk and, lastly, the limbs become soft and flabby, and the once well-fitting garments hang loosely about him, his flesh seeming to melt away, so rapid is the change.

EMACIATION.

A natural course of reasoning as to the cause and effect of emaciation under these circumstances has developed the fact that the abnormal consumption of the tissues is the result of nature's efforts to supply the waste, through the blood from the fatty tissues of the body with the requisite amount of material whose oxidation is the source of heat and nerve force, the natural supply, through the assimilation of food, having failed in consequence of an unhealthy condition of the pancreatic secretions causing an insufficient supply of chyle, or a failure on the part of the lacteal tubes, through fever or some cause, to absorb sufficient nutriment.

TUBERCLE.

As the attack upon the tissues of the body progresses, not only fatty tissue is absorbed into the circulation from unnatural sources, causing loss of strength, but particles of albuminoid tissue are carried by the blood and being deposited in channels where the system has no provision for throwing them off, form desquamative centres of disease which, in their turn, throw off infectious matter to be absorbed into the general system. The immense extent of delicate mucous surface in the respiratory passages of the lungs exposed to the contents of the minute blood-vessels which permeate their entire texture, offers the greatest and most susceptible field for the reposition of a large amount of this effete albuminoid tissue. This deposit forms the tubercle whose establishment in the lung is the beginning of that train of circumstances which characterizes the progress of that fatal malady—consumption. Thus it is seen that tuberculosis is either due to the defective action of the pancreatic juice on the fatty elements of the food, or to the non-absorption of the chyle into the blood.

ASSIMILATION OF FATS.

Fatty matter, when introduced to the stomach, undergoes little change by the action of the gastric juice, but passes, together with

the chyme or digested fibrinous and albuminous matter, to the duodenum, where it comes into contract with the pancreatic juice, and is thereby transformed into chyle, which is a very delicate saponaceous emulsion or suspension of the oleaginous portion of fat. It is when in *this condition only* that fat is capable of absorption by the lacteals, thence passing directly to the venous blood, which is supplied to the lungs through the right cavity of the heart; the lungs then absorb from that blood the hydrocarbons or fatty portion, and return the nitrogenous portion to the heart, to form the globulin of arterial blood before passing into the circulation.

This function of partly saponifying and partly emulsifying fats is enjoyed by no other secretion of the alimentary canal but the pancreatic juice, unless we take into consideration the action of the saliva, which is somewhat of that nature; but as the food in most instances is subjected to the action of the saliva in the mouth for so short a time, this feature in the economy is almost inappreciable.

TREATMENT.

The close relations of non-assimilations of the fatty elements of food to wasting diseases, and especially to consumption, is understood, and reason would indicate that if by any artificial means the absorption of fat could be assisted by supplying, as chyle, a proper amount of oleaginous or fatty matter, a nutritive progress, would be established which would modify the unhealthy action of the pancreas, and not only relieve the body from the depleting effects of the disorder, but afford an opportunity for treatment and recovery. With the assistance of a thorough knowledge of the chemical process which fat undergoes from the time of its introduction into the duodenum to absorption, a preparation has been introduced and extensively used by the profession in England with highly successful results, indicated by the very flattering commendations of it from many physicians who, having given the treatment of pulmonary disorders their special attention, are peculiarly qualified to attest its efficacy.

HYDROLEINE.

This preparation, to which the distinctive name of hydroleine (hydrated oil) has been given, is not a simple emulsion of cod-liver oil, but a permanent and perfect saponaceous emulsion of oil, in combination with pancreatin soluble in water, the saponification producing a cream-like preparation, possessing all the necessary qualities of chyle, including extreme delicacy and solubility, whereby a ready and perfect assimilation is afforded.

FORMULA OF HYDROLEINE.

Each dose of two teaspoonfuls, equal to 120 drops, contains:

Pure oil.....	80 m (drops)
Distilled water	35 "
Soluble pancreatin.....	5 grains.
Soda.....	ʒ "
Boric acid.....	ʒ "
Hydrochloric acid	1-20 "

Dose.—Two teaspoonfuls alone, or mixed with twice the quantity of soft water, wine or whiskey, to be taken thrice daily with meals.

The use of the so called emulsions of cod-liver oil during the extremely sensitive condition of the digestive organs always accompanying consumption does not usually afford beneficial results. Those of the profession in this country who have under their care cases of consumption, diabetes, chlorosis, Bright's disease, hysteria, and, in short, any disease where a loss of appetite is followed by a rapid breaking down of the tissues of the body in its effort to support the combustion supplying animal heat, are urged to give this preparation a trial. It is supplied by the agent for Canada, Hazen Morse, No 57 Front Street East, Toronto, who will forward literature relating to the subject upon application.

THE CANADA LANCET.

That many of the diseases from which mankind suffer during infant and adult life are caused by malnutrition, there can be no doubt; and the extent to which non-assimilation of the life-giving properties of food interferes with recovery from severe illness, baffling the best directed efforts of the physician, points the necessity for an agent or combination of agents sufficiently potent to replace the deficient principle and aid nature in renewing the degenerated tissues.

Realizing this need, the science of chemistry produced pepsine. Richard Tuson, F. C. S. Professor of Chemistry, London, England, in the *Lancet* Aug. 13, 1870, speaks of this remedy as follows: "Since the introduction of Corvisart and Boudault's poudre nutritive into medicine, in the year 1854, Pepsine, obtained from the stomach of the pig, calf or sheep, in a state of greater or less impurity has been extensively prescribed in Dyspepsia and certain other affections. According to the testimony of some authorities of high standing, long experience in the use of this agent fully justifies Corvisart's predictions relative to its therapeutic value, which were based on physiological reasoning.

There are other authorities who express doubts as to the efficacy of Pepsine. This difference of opinion undoubtedly arises from the circumstance that pharmacists supply medical men with various preparations, all bearing the same specific name of Pepsine, but differing very considerably in their digestive powers and other qualities. In fact, I find those who speak favorably of its employment in the treatment of disease have prescribed that prepared by the best makers, while those who express a doubtful opinion have been in the habit of prescribing those varieties or makes, which the experiments of myself and others have proved to be practically without any digestive activity, *i. e.* worthless. Under these circumstances it is absolutely necessary for the practitioner to be certain of the make of Pepsine he uses. Pure Pepsine, thoroughly triturated with finely powdered sugar of milk (saccharated pepsine) will undoubtedly produce the best results.

Experience in diseases of the stomach, dyspepsia, etc. has demonstrated in many cases, the lack of other agents required to promote a healthy digestion beside Pepsine, namely Pancreatin and Diastase or veg. Ptyalin. Pancreatin the active principle of the sweet-bread or pancreas possesses the wonderful power of emulsifying the fats and oils of food, rendering them easily assimilated by the system not affected by pepsine in the slightest degree. Diastase or veg. Ptyalin, as obtained from malted barley in the dry extract of malt, represents the saliva, and has the remarkable property of converting the insoluble starchy portions of food into the soluble glucose, thus rendering the indigestible and innutritious article starch into the nutritive and easily assimilated food glucose.

The value of these different ingredients and the difficulty of procuring them of the right quality led Hazen Morse, 57 Front Street East, Toronto, to experiment with various combinations during seven years' employment in the manufacture of Pepsine on a large scale and with the assistance of several prominent physicians he was finally enabled to present to the profession the following formula.

Saccharated Pepsine.....	10 Grains.
" Pancreatin.....	5 "
Acid Lactophosphate of Lime	5 "
Exsiccated Extract of Malt equal to one teaspoonful of Liquid Extract of Malt	10 "

Said formula has been registered at Ottawa under the distinctive name Maltopepsyn, thus giving the physician a guarantee of always procuring the same standard preparation and preventing their being imposed upon by imitations of inferior quality, and at the same time putting it at as low a figure (fifty cents for $1\frac{1}{2}$ ozs.) as possible for such a formula to be compounded from the ingredients of the *best* possible manufacture.

Maltopepsyn has digestive power ten times greater than the best Pepsine in the market, as it digests Fibrin and Caseine, emulsifies the fat of food taken into the stomach, thus rendering it assimilable, converts starch into glucose, in fact it combines all the agents that act upon food, from mastication to its conversion into chyle, digesting all aliment use by mankind while Pepsine acts only on plastic food. Maltopepsyn also combines with the above the nutritive qualities of Extract of Malt, and the brain and nerve strengthening powers of the Acid Phosphates.

It has been found that a free acid, like Hydrochloric, does not combine well with a Saccharated Mixture, and renders it liable to decomposition, I therefore do not use it in my formula. It can be easily prescribed in solution, (say 20 drops of acid to 4 ounces of water) one half-ounce with each dose, in cases where its use is indicated.

For infants, however, Maltopepsyn will be found to yield the most satisfactory results, and the acid should be dispensed with. The necessity for the absence of acid which would tend to produce harmful results, will be recognized, when it is considered that even the slight acidity of most cow's milk, when used as food for infants, is sufficient to disagree with them.

With regard to the proper time for its administration, as before or after taking of food, opinions vary, but reason would suggest that about half an hour before eating will afford the ferment a sufficient time to combine with the existing condition of the stomach, and produce the most natural effect upon the food.

THE CANADA LANCET.

OPINIONS OF MEDICAL MEN.

46 St. Joseph St., TORONTO, Aug. 19, 1881.

I have tried both Maltopepsyn and Hydroleine in a large number of cases and have found very great benefit from their use. Maltopepsyn is one of the best remedies of its kind that I have ever prescribed when artificial aid is required for digestion. Hydroleine I have found to be one of the best, if not *the* best of its class. It is readily taken, is easily assimilated, does not produce nausea or disgust, and nourishes the body to a very marked degree. In all wasting diseases I have found it to be most satisfactory. I would strongly recommend both of these preparations to my professional brethren.

JAS. H. RICHARDSON, M.D.,
M.R.C.S., England.

MONTREAL, Sept. 7, 1881.

Dear Sir.—I have given a very fair trial to your preparations Maltopepsyn and Hydroleine. I found Hydroleine invaluable in all wasting diseases, where cod liver oil and other tonics are generally employed, and especially in treating some cases of chronic diseases of the skin.

Maltopepsyn has been used successfully in two cases of Dyspepsia.

Yours truly,
GASPARD ARCHAMBAULT, M.D.,
Physician to the Hotel Dieu and Professor of
Dermatology at the Medical and Surgical
School.

MONTREAL, Sept. 12, 1881.

Dear Sir.—I think I have employed Hydroleine since its first introduction here, and it has given far more satisfaction in my hands than any other Cod Liver Oil preparation, in cases of emaciation with cough and threatened consumption its use has invariably been followed by benefit and in many cases results have been truly remarkable. Increase in weight, improved secretions and better spirits usually follows its proper administration. In chronic diarrhoea I have found it very serviceable and for many convalescents it is invaluable.

Yours truly, W. B. BURLAND, M.D.

MONTREAL, Sept. 28, 1881.

Dear Sir.—I have used Hydroleine very freely and find it a very good tonic in all wasting diseases, principally those of the pulmonary organs.

Yours truly,
P. G. MOUNT, M.D.

Physician to the Reformatory Jail, Montreal.

690 Dorchester Street, MONTREAL, Sep. 29, 1881.

Sir.—I have much pleasure in adding my own to the mass of testimony you have already acquired in favor of Hydroleine, with the results of which I have never been disappointed. Its administration has frequently been attended with an increase in the patient's weight far out of proportion to the quantity of oil taken.

Yours truly,

A. LAPTHORN SMITH, M.D.
M.R.C.S., England, F.O.S. Lond.,
Physician Montreal Dispensary.

531 Wellington Street, MONTREAL, Sep. 19, 1881.

Dear Sir.—What I have seen of Hydroleine is certainly to its advantage. In the first place you do not, as is done to my knowledge in other preparations, endeavor to cover up deficiencies of the oil by adding strong aromatic oils to the mixture, and again, I consider the formula more likely to secure a finer emulsion by reducing the size of the globules than is possible under other methods.

Yours truly,
CASEY A. WOOD, M.D.

MONTREAL, Sept. 7, 1881.

Dear Sir.—I have much pleasure in testifying to the excellence of your Maltopepsyn in cases of indigestion and the diarrhoea and the vomiting of children. Beyond question it is the most successful remedy we possess in the above class of cases, particularly so in young children, doing away entirely with the very objectionable habit of administering very powerful astringents, including opium. Your preparation in these cases is prompt in its action and above all harmless.

Yours very truly,
JOHN T. FINNIE, M.D.

MONTREAL, Sept. 19, 1881.

Dear Sir.—Having occasion to prescribe Maltopepsyn often, it is with the greatest pleasure that I inform you of its entire satisfaction to the relief and cure of all those troubles which accompany dyspepsia, gastralgia, pyrosis and flatulency; it has also cured costiveness. In all these complaints I am well pleased with the use of this wonderful remedy.

Yours very truly,
J. C. DANSEREAU, M.D.

126 Bleury St., MONTREAL, Sept. 12, 1881.

Dear Sir.—I have used Maltopepsyn in a great number of cases with beneficial results and think that it is a very valuable preparation.

Yours truly,
R. A. KENNEDY, M.D.

NEW DURHAM, ONT, Oct. 1, 1881.

Dear Sir.—I prescribed Hydroleine to a patient afflicted with tuberculosis. She is wonderfully emaciated; nevertheless, from the use of the one bottle she has gained 1½ lbs., her cough has become less frequent, and she expressed a great desire to continue the use of the remedy. I write you for 4 (four) bottles to be sent immediately.

Yours very respectfully,
A. McCURDY, M.D.

UPPER BEDFORD, QUE., Sept. 28, 1881.

Dear Sir.—For the past 2 months I have used Hydroleine (Hydrated Oil) in *all* my cases presenting either a scrofulus or tubercular diathesis, and have found it answered better than any other preparation of cod liver oil. Notably with children (of all ages) do I find its *particular value*.

In suitable cases your Maltopepsyn has never failed me, and in certain cases of long standing dyspepsia, its use I found indispensable.

Yours truly,
DAVID A. HART, M.D.

Warner & Co.'s Sugar-Coated Pills.

PER
100

	MEDICAL PROPERTIES.	Doses.	Each
FEL, Bovinum, { Ox-gall, " Powdered Jamaica Ginger,	2 grs. } 1 gr.	Laxative.	1 to 3 .50
FEARI, (Quevenne's) " 2 grs.	Tonic.	1 to 3 .50	
" CARB. (Vallet's) U. S. P. 3 grs.	Tonic.	1 to 2 .75	
" CITRAT. 2 grs.	Tonic.	1 to 4 .40	
" COMP. U. S. P.	Tonic.	1 to 3 .50	
" IODID. 1 gr.	Tonic, Emmenagogue.	2 to 6 .40	
" LACTAT. 1 gr.	Tonic, Alterative.	1 to 2 .65	
" PYROPHOS. 1 gr.	Tonic.	1 to 3 .50	
" VALER. 1 gr.	Tonic.	1 to 3 .40	
" ET QUAS, ET { Fer. per Hydrogen, 1½ gr. " Quassia, 1 gr.	Tonic.	1 to 2 .75	
" NUC. VOM. { Nuc. Vom. ½ gr. " Pulv. Saponis, ½ gr.	Nerve Stimulant.	1 to 2 .75	
" ET QUIN. Cit. 1 pt.	Tonic, Antiperiodic.	1 to 2 .75	
" ET STRYCHNIE, 2 grs.	Tonic, Antiperiodic.	1 to 2 .10	
" ET STRYCHNIE, 1 three times a day. { Strychnia, 1-60 gr. " Ferrum per Hydrog. (Quevenne's) 2 grs.	Tonic, Nerve Stimulant.	1 to 2 .75	
" ET STRYCHNIE CIT. { Strych. Cit. 1-50 gr. " Ferri Cit. 1 gr.	Tonic, Nerve Stimulant.	1 to 2 .75	
GAMBOGIE COMP. { Pulv. Gambogia " Aloes Socot. " Zingib. Jam " Saponis,	Active Purgative.	2 to 5 .40	
GEFT. COMP. { Ext. Gentian, ½ gr. " Pv. Aloes Soc. ½ gr. " Ol. Carui, 1-5 gr.	Tonic, Purgative.	2 to 4 .40	
GONORRHCEA, { Pulv. Cubebae, 2 grs. " Bals. Copab. Solid, 1 gr. (Ferri Sulph. ½ gr. Venet. Terebinth 1½ gr.)	Tonic, Alterative to Mucous Membrane.	1 to 3 .60	
HEPATIC, { Pil. Hydrag. 3 grs. Ext. Coloc. Comp. 1 gr. " Hyoscyam. 1 gr.	Cholagogue Cathartic.	1 to 2 .80	
HOOPER (Female' Pills) 2½ grs. { Aloes Socot. " Ferri Sulph. Exsic. Ext. Hellebore, " Pulv. Myrrh.			
" HYDRARGYRI, U. S. P., 3 grs.	Emmenagogue.	1 to 3 .40	
" " " 5 grs.	Mercurial Purgative.	2 to 3 .40	
" Comp. { Mass. Hydrag. 1 gr. " Pulv. Opil. ½ gr. " Ipecac. ½ gr.	Mercurial Purgative.	1 to 2 .50	
" Iod. et Opil. { Hydg. Iodid. 1 gr. " Pulv. Opil. ½ gr.	Mercurial Alterative.	1 to 2 .75	
IODOFORM ET FERRI. { Ferrum per Hydro. 1½ gr.	Tonic Alterative.	1 to 2 .2	
IODOFORM, 1 gr.	Tonic, Alterative.	1 to 2 .10	
IPECAC ET OPII, 3½ grs. (Pulv. Doveri, U. S. P.)	Anodyne, Soporific.	1 to 3 .50	
" " " 5 grs.		1 to 2 .65	
IRISIN COMP. { Irisin, ½ gr. Podophyllin, 1-10 gr. Strychnia, 1-40 gr.	Cathartic, Nerve Stimulant.	1 to 3 .50	
LEPTAND. COMP. { Leptandrin, ½ gr. Podophyllin, ½ gr.	Laxative, Diuretic.	1 to 2 .10	
LEPTANDRIN, 1 gr.	Cathartic.	1 .75	
LUPULIN, 3 grs.	Anodyne.	2 to 4 .40	
MORPHIA COMP. { Morph. Sulph. ½ gr. Tart. Emetic, ½ gr. (Calomel, ½ gr.	Anodyne, Febrifuge.	1 .150	
NEURALGIC, { Quinia Siph. 2 grs. Morph. Sulph. 1-20 gr. Strychnia, 1-80 gr. Acid Arsenious, 1-20 gr. Ext. Aconiti, ½ gr.	Tonic, Alterative, Anodyne.	1 to 3 .300	
NEURALGIC. (Brown-Sequard.) { Ext. Hyoscyami, ½ gr. " Conii, ½ gr. " Ignat. Am. ½ gr. " Opil, ½ gr. " Aconiti, ½ gr. " Cannab. L, ½ gr. " Stramon, 1-5 gr. " Bellad, ½ gr.	Anodyne.	1 .200	
OPII, U. S. P., 1 gr.	Anodyne	1 .60	
" ET CAMPHORE, { Pulv. Opil, 1 gr. Camphora, 2 grs.	Anodyne, Nerve Sedative.	1 .80	
" ET CAMPHORE, ET TANNIN, { Pulv. Opil, ½ gr. (Camphora, 1 gr. (Acid Tannic, 2 grs.)	Anodyne, Astringent.	1 to 3 .80	
" ET PLUMBI ACET. { Pulv. Opil, ½ gr. (Plumbi Acetas, 1½ gr.)	Anodyne, Sedative.	1 to 2 .60	
PHOSPHORUS COMP. { Phosphorus, 1-100 gr.	Nerve Tonic.	1 to 4 .150	
PHOSPHORUS, 1-50 gr., 1-25 gr.	Nervine Stimulant.	1 to 2 .100	
PHOSPHORUS, 1-100 gr.	Nervous Stimulant.	1 to 4 .100	
PHOSPHORUS. IRON AND NUX VOM. { Phosphorus, 1-100 gr. Ferri Carb. (Vallet's) 1 gr. (Ext. Nuc. Vom. ½ gr.)	Nervous Stimulant, Tonic.	1 to 3 .150	
POTASS. BROMID. 1 gr.	Nervous Sedative.	2 to 5 .75	
" " " ½ grs.		1 to 2 .125	
" IODID. 2 grs.	Alterative.	1 to 3 .85	
PODOPHYLLIN COMP. (Eclectic.) { Podophyllin, ½ gr. Leptandrin, 1-10 gr. Juglandin, 1-10 gr. Macroton, 1-32 gr. Ol. Capsici, 1 or.	Purgative.	2 to 4 .75	
PODOPHYLLIN ET BELLAD. { Podophyllin, ½ gr. Ext. Bellad, ½ gr. Ol. Res. Capsidi, ½ gr. Saccharum Lact. 1 or.	Stimulating Laxative. Mild	1 to 3 .75	

PILLS SENT BY MAIL ON RECEIPT OF FIRST DRAFT
Sold by

R. W. McCARTY.

ST. JOHN N. B.

Warner & Co.'s Sugar-Coated Pills.

PER

100

MEDICAL PROPERTIES. Doses. Each

PODOPHYLLIN ET HYDRAJ. 3. {Podophyllin, $\frac{1}{2}$ gr. Mass. Hydrarg. 2 grs.}	Laxative.	2 to 4	50
" ET HYOSCYAMUS, {Podophyllin. Ext. Hyoscyamus, $\frac{1}{2}$ $\frac{1}{2}$ grs.}	Gentle Cathartic	1 to 2	60
PODOPHYLLIN, 1 gr.....	Cathartic.	1	75
" " $\frac{1}{2}$ gr.	Tonic, Antiperiodic.	1 to 4	90
" " 2 grs.	Tonic, Antiperiodic.	1 to 8	140
" " 3 grs.	Tonic, Antiperiodic.	1 to 8	275
" COMP. {Quin. Sulph. 1 gr. Ferr. Carb. 2 grs.}	Tonic, Antiperiodic.	1 to 2	400
" " {Achi. Arsenous, 1-60 gr. Ext. Belladon. 1 gr.}	1 immediately after each meal.		
ET EXT. BELLADON. {Quin. Sulph. 1 gr. Ext. Belladon. $\frac{1}{2}$ gr.}	Nerve Tonic, Antiperiodic.	1 to 2	175
ET FERRI, {Quin. Sulph. Ferrum per Hydrg. (Quevennes) 1 gr.}	Tonic, Antiperiodic.	1 to 2	175
QUINIA ET FERRI, ET {Quin. Sulph. Ferr. Carb. (Vallet's) 2 grs.}	Tonic, Antiperiodic.	1 to 2	175
STRYCHNIA, {Strych. Sulph. Strych. Phos. 1-60 gr.}	Tonic, Antiperiodic.	1 to 2	175
" ET FERRI, Valer, 2 grs.....	Tonic, Antiperiodic.	1 to 2	350
QUINIA ET FERRI CARB. {Quinia. Ferr. Carb. (Vallet's) 2 grs.}	Tonic, Antiperiodic.	1 to 2	175
" ET HYDRARG. {Quin. Sulph. Mass. Hydrarg. 2 grs. Oleo-resin. Piper. Nig. $\frac{1}{2}$ gr.}	Tonic, Antiperiodic.	1 to 2	175
QUINIA, IODOFORM AND IRON {Iodoform. Ferr. Carb. (Vallet's) 2 grs. Quinia Sul. $\frac{1}{2}$ gr.}	Tonic, Alterative.	1 to 2	300
QUINIA ET STRYCHNIA, {Quin. Sul. Strychnia, 1-60 gr.}	Tonic, Nerve Stimulant.	1 to 2	175
QUINIA, Valerianate, $\frac{1}{2}$ gr.....	Tonic, Nervine.	1 to 2	200
RHEI ET HYDRARG. {Pulv. Rhei. Mass. Hydrarg. Soda Carb. Exs.}	Cholagogue Cathartic.	2 to 5	80
RHEI, U. S. P. {Pulv. Rhei. Saponis. 3 grs.}	Gentle Laxative.	1 to 5	75
Pulv. Rhei, " Aloes Socot. $\frac{1}{2}$ grs.	2 grs.		
RHEI COMP. U. S. P. {Myrrh. Oil. Menth. Pip. 1 gr.}	Purgative.	2 to 4	75
RHEUMATIC, {Ext. Coloc. C. " Colchici Acet. $\frac{1}{2}$ grs. " Hyoscyam. $\frac{1}{2}$ gr. Hydg. Chlor. Mit. $\frac{1}{2}$ gr.}	Anti-Rheumatic, Purgative.	1 to 3	90
SANTONIN, 1 gr.....	Anthemintic.		
SCILLE COMP. U. S. P. {Pulv. Scille. " Zingib. Jamaica, $\frac{1}{2}$ gr. Gum Ammoniac 1 gr. Pulv. Saponis. $\frac{1}{2}$ gr.}	Expectorant, Diuretic.	1 to 3	50
STOMACHICA, (Lady Webster's) {Aloes Soc. Dinner Pills, 3 grs.}	Gum Mastich, Flor. Rose.		
SYPHILITIC, {Potass. Iod. " Hyd. Chlor. Corros. 1-40 gr.}	Stimulating Purgative.	1 to 2	50
TRIPLEX, {Aloes Socot. 2 grs. Mass. Hydrarg. 1 gr. Podophyllin, $\frac{1}{2}$ gr.}	Specific Alterative.	1 to 2	100
ZINCI VALERIAN, 1 gr.....	Purgative.	2 to 4	75
	Antispasmodic.	1 to 3	100

GRANULES.

PER
100

MEDICAL PROPERTIES. Doses. Each

ACID, Arsenious, 1-20, 1-30 and 1-50 grs.....	Antiperiodic, Alterative.	1 to 2	40
ACONITIA, 1-60 gr.....	Nerve Sedative.	1 to 2	75
ATROPIA, 1-60 gr.....	Anodyne.	1 to 2	75
CORROSIVE SUBLIMATE, 1-12, 1-20 and 1-40 grs.....	Mercurial Alterative.	1 to 2	40
CAULOPHYLLIN, 1-10 gr.....	Emmenagogue.	1 to 4	40
CIMICIFUGIN, 1-10 gr.....	Tonic, Nerve Stimulant.	1 to 4	40
DIGITALIN, 1-60 gr.....	Arterial Stimulative.	1 to 4	40
ELATERIUM, (Clutterbuck's) 1-10 gr.....	Diuretic Hydragogue, Cathartic.	1 to 2	75
EXTRACT Belladonna, (Eng.) $\frac{1}{2}$ gr.....	Anodyne.	1 to 3	40
" Ignatia Amara, $\frac{1}{2}$ gr.	Nerve Sedative.	1 to 2	50
" Cannabis Indica, $\frac{1}{2}$ gr.	Anodyne.	1 to 4	60
" Hyoscyamus, (Eng.) $\frac{1}{2}$ gr.	Nerve Stimulant.	1 to 3	40
" Nuc. Vomica, $\frac{1}{2}$ and $\frac{1}{2}$ gr.	Nerve Stimulant.	1 to 3	40
GELSEMIN, $\frac{1}{2}$ gr.	Arterial Sedative.	1 to 4	50
HYDRASTIN, $\frac{1}{2}$ gr.	Arterial Sedative.	1 to 2	75
HELONIN, 1-10 gr.....	Emetic, Diuretic, Cathartic.	1 to 2	95
LEPTANDRIN, $\frac{1}{2}$ gr.	Cathartic.	1 to 2	50
MERCURY, Iodide, $\frac{1}{2}$ gr.	Cathartic.	1 to 4	50
" Red, 1-18 gr.	Alterative.	1 to 4	40
MORPHIA, Acet, $\frac{1}{2}$ gr.	Alterative.	1 to 4	40
" Sulphate, 1-10 gr.	Anodyne.	1 to 2	70
" " 1-6 "	Anodyne.	1 to 2	70
" " $\frac{1}{2}$ "	Anodyne.	1 to 2	80
" Valerianate, $\frac{1}{2}$ "	Anodyne.	1 to 2	100
PODOPHYLLIN, 1-10 gr.	Cathartic.	1 to 4	40
" $\frac{1}{2}$ gr.	Cathartic.	1 to 4	40
" $\frac{1}{2}$ gr.	Cathartic.	1 to 2	50
" COMP. {Podophyllin, $\frac{1}{2}$ gr. Ext. Hyoscyam., $\frac{1}{2}$ gr. " Nuc. Vomica, 1-60 gr.}	Cathartic and Tonic.	1 to 2	75
SILVER, Nitrate, $\frac{1}{2}$ gr.....	Alterative, to Mucous Membr'ne.	1 to 4	75
" Iodide, $\frac{1}{2}$ gr.	Alterative, to Mucous Membr'ne.	1 to 4	75
STRYCHNIA, 1-10, 1-20, 1-30, 1-82, 1-40 and 1-60 gr.	Nerve Stimulant, Tonic.	1 to 3	40

PILLS SENT BY MAIL ON RECEIPT OF LIST PRICE.

Sold by

LYMAN SONS. & CO.

MONTREAL.

SCOTT'S EMULSION

PURE COD LIVER OIL,

With HYPOPHOSPHITES of LIME and SODA,
PERFECT, PERMANENT, PALATABLE.

The high character, and wide reputation **Scott's Emulsion** has attained through the agency of the Medical Profession, and the hearty support they have given it since its first introduction, is a sufficient guarantee of its superior virtues. The claims we have made as to its permanency—perfection and palatableness—we believe have been fully sustained, and we can positively assure the profession that its high standard of excellence will be fully maintained. We believe the profession will bear us out in the statement that no combination has produced as good results in the wasting disorders incident to childhood; in the latter as well as the incipient stages of Phthisis, and in Scrofula, Anæmia and General Debility. We would respectfully ask the profession for a continuance of their patronage, and those who have not prescribed it to give it a trial. Samples will be furnished free upon application.

FORMULA.—50 per cent. of pure Cod Liver Oil, 6 grs. of the Hypophosphate of Lime, and 3 grs. of the Hypophosphate of Soda to a fluid ounce.

SEE TESTIMONIALS OF PHYSICIANS.

Messrs. SCOTT & BOWNE:

I have prescribed your emulsion of Cod Liver Oil with Hypophosphites for the past two years, and found it more agreeable to the stomach, and have better results from its use than from any other preparation of the kind I have tried.

Halifax, N.S., Nov. 19, 1880.

W. M. CAMERON, M.D.

Messrs. SCOTT & BOWNE:

Gentlemen—After three years experience, I consider your Emulsion one of the very best in the market.

Truro, N.S., Nov. 15, 1880.

W. S. MUIR, M.D., L.R.C.P. & S., Ed.

Messrs. SCOTT & BOWNE:

I have much pleasure in stating that for the last three years I have used your Emulsion of Cod Liver Oil and Hypophosphites in my practice, in cases of Phthisis, Nervous Prostration and Anæmia, and always derived marked benefit from its use. That it does not decompose, is very palatable, and remains in the most fastidious stomach, are some of its greatest merits.

I have the honor to be, yours truly,

T. J. O. EARLE, M.D.

St. John, N.B.

Messrs. SCOTT & BOWNE:

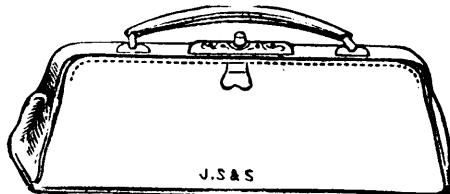
I have used for some time, and prescribed Scott's Emulsion of Cod Liver Oil, and find it an excellent fixed preparation, agreeing well with the stomach, easily taken, and its continued use adding greatly to the strength and comfort of the patient.

Petitcodiac, N.B., Nov. 5, 1880.

A. H. PECK, M.D., Penn. Med. Co. lego.

SCOTT & BOWNE, Manufacturing Chemists, New York.

The Practitioners' Obstetric Bag

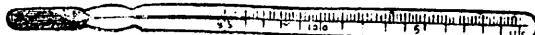


Is 15 inches long, 2 inches high, containing 1 Barnes's Craniotomy Forceps, 1 Barnes's Long Midwifery Forceps, 1 Pair of Perforators, 1 Blunt Hook and Crotchet, 1 Frénulum Scissors, 1 Catheter, 4 Stoppered Bottles, 1 Chloroform Drop Bottle, in case.

The whole in Bag of Superior Morocco Leather, or of Black H.d.e. with Dock and Fittings, engraved and gilt, price, complete..... \$26.00
Bags, empty..... 6.00
" lined with Chamois Leather..... 5.75
" " " and plain lock..... 4.25

IMPROVED CLINICAL THERMOMETER WITH INDESTRUCTIBLE INDICES.

LOSS OF INDEX IMPOSSIBLE.



These Thermometers combine all the improvements which have recently been made in the manufacture of Clinical Thermometers. The Indices are bold and easily seen, and cannot be shaken into the Bulb, the engraving is plain and cannot be rubbed off.

PRICE—In Wood Case..... \$2.25
In Plated Case..... 2.50
Ordinary Registering Thermometers..... 1.50
Patent Magnifying or Lens Front 3.00 & 3.25
Manufactured by

J. STEVENS & SON,
Surgical Instrument Makers.

GOWER STREET, | 40 Wellington St. E.
London, Eng. | Toronto, Ont.

See advertisement on another page.

John Reynders & Co.,

(Late of Otto & Reynders,)

No. 309 Fourth Avenue, New York,

UNDER THE COLLEGE OF PHYSICIANS AND SURGEONS,

Manufacturers and Importers of

SURGICAL

AND

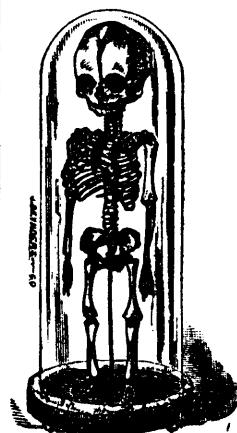
Orthopædical Instruments,

SKELETONS,

AND

ANATOMICAL

PREPARATIONS.



The Manufacture and Importation of every article used by Physicians and Surgeons our Specialties.

Our Illustrated Catalogue and Price List mailed on application, enclosing twelve cents for Postage.

Dr. J. Collis Browne's

ORIGINAL AND ONLY GENUINE

CHLORODYNE.

COUGHS,
COLDS,
ASTHMA,
BRONCHITIS.

DR. J. COLLIS BROWNE'S CHLORODYNE. This wonderful remedy was discovered by Dr. J. Collis Browne, and the word Chlorodyne coined by him expressly to designate it. There never has been a remedy so vastly beneficial to suffering humanity, and it is a subject of deep concern to the public that they should not be imposed upon by having imitations pressed upon them on account of cheapness, and as being the same thing. Dr. J. Collis Browne's Chlorodyne is a totally distinct thing from the spurious compounds called Chlorodyne, the use of which only ends in disappointment and failure.

DR. J. COLLIS BROWNE'S CHLORODYNE.—Vice Chancellor Sir W. Page Wood Stated Publicly in Court that Dr. J. Collis Browne was Undoubtedly the Inventor of Chlorodyne, that the whole story of the defendant was deliberately untrue, and he regretted to say it had been sworn to.—See THE TIMES, July 13th, 1864.

DR. J. COLLIS BROWNE'S CHLORODYNE is a Liquid Medicine, which Assuages Pain of Every Kind, affords a calm, refreshing sleep Without Headache, and Invigorates the Nervous System when exhausted.

DR. J. COLLIS BROWNE'S CHLORODYNE is the GREAT SPECIFIC for CHOLERA, DYSENTERY DIARRHEA.

The General Board of Health, London, Report that it Acts as a Charm, one dose generally sufficient.

Dr. Gibbon, Army Medical Staff, Calcutta, states:—"Two Doses Completely Cured Me of Diarrhoea."

DR. J. COLLIS BROWNE'S CHLORODYNE rapidly cuts short all attacks of EPILEPSY, SPASMS, COLIC, PALPITATION, HYSTERIA

From Symes & Co., Pharmaceutical Chemists, Medical Hall, Simla.—January 5, 1880.

To J. T. Davenport, Esq., 33 Great Russell Street, Bloomsbury, London.

"DEAR SIR,—Have the goodness to furnish us with your best quotations for Dr. J. Collis Browne's Chlorodyne, as, being large buyers, we would much prefer doing business with you direct than through the wholesale houses. We embrace this opportunity of congratulating you upon the wide-spread reputation this justly-esteemed medicine has earned for itself, not only in Hindostan, but all over the East. As a remedy of general utility, we much question whether a better is imported into the country, and we shall be glad to hear of its finding a place in every Anglo-Indian home. The other brands, we are happy to say, are now relegated to the native bazaars, and, judging from their sale, we fancy their sojourn there will be but evanescent.

We could multiply instances *ad infinitum* of the extraordinary efficacy of Dr. Collis Browne's Chlorodyne in Diarrhea and Dysentery, Spasms, Cramps, Neuralgia, the Vomiting of Pregnancy, and as a general sedative, that have occurred under our personal observation during many years. In Choleraic Diarrhoea, and even in the more terrible forms of Cholera itself, we have witnessed its surprisingly controlling power. We have never used any other form of this medicine than Collis Browne's, from a firm conviction that it is decidedly the best, and also from a sense of duty we owe to the profession and the public, as we are of the opinion that

the substitution of any other than Collis Browne's is a deliberate breach of faith on the part of the chemist to prescriber and patient alike.

We are, sir, faithfully yours,
SYMES & CO.,
*Members of the Pharm. Society of
Great Britain, His Excellency the
Viceroy's Chemists.*

DR. J. COLLIS BROWNE'S CHLORODYNE is the Pure Palliative in NEURALGIA, GOUT, CANCER, TOOTHACHE, RHEUMATISM.

From Dr. B. J. Boulton & Co., Horncastle.

"We have made pretty extensive use of Chlorodyne in our practice lately, and look upon it as an excellent direct Sedative and Anti-Spasmodyc. It seems to allay pain and irritation in whatever organ, and from whatever cause. It induces a feeling of comfort and quietude not obtainable by any other remedy, and it seems to possess this great advantage over all other Sedatives, that it leaves no unpleasant after effects."

IMPORTANT CAUTION.

The IMMENSE SALE of this REMEDY has given rise to many UNSCRUPULOUS IMITATIONS.

N. B.—EVERY BOTTLE OF GENUINE CHLORODYNE BEARS on the GOVERNMENT STAMP the NAME of the INVENTOR,

DR. J. COLLIS BROWNE.

SOLD IN BOTTLES, 1s., 1/1d., 2/9. 4/6, by all Chemists.

SOLE MANUFACTURER:

J. T. DAVENPORT, 33, GREAT RUSSELL STREET, W.C.

THE CANADA LANCET.

BELLEVUE HOSPITAL
MEDICAL COLLEGE.
CITY OF NEW YORK.

SESSIONS OF 1881-82.

At and after the Session of 1881-82, the College will return to its former requirements as regards fees and graduation; viz., those in force before the session of 1880-81.

THE COLLEGIATE YEAR in this Institution embraces the Regular Winter Session and a Spring Session.

THE REGULAR SESSION will begin on Wednesday, September 21, 1881, and end about the middle of March, 1882. During this Session, in addition to four didactic lectures on every weekday except Saturday, two or three hours are daily allotted to clinical instruction. Attendance upon two courses of lectures is required for graduation.

THE SPRING SESSION consists chiefly of recitations from Text-Books. This Session begins about the middle of March and continues until the middle of June. During this Session, daily recitations in all the departments are held by a corps of Examiners appointed by the Faculty. Short courses of lectures are given on special subjects, and regular clinics are held in the Hospital and in the College building.

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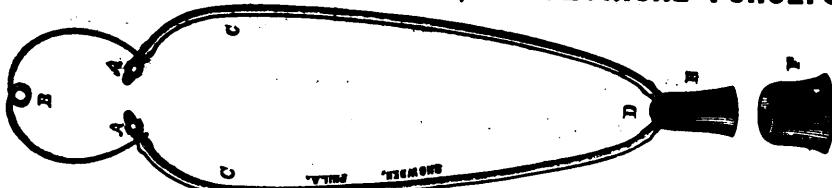
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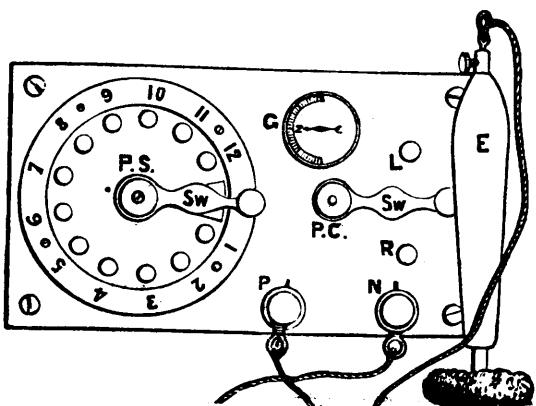


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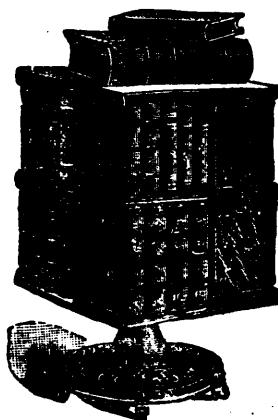
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"Vaseline is the best pharmaceutical preparation in the making of Ointments, as it is completely neutral and unchangeable. I saw it used for the first time in London by Dr. Lanson. I then procure the 'Vaseline' myself, and have experimented with it for four months on over one thousand patients, and I must declare that the knowledge acquired by practice has surpassed my expectations by far. * * * I have also prepared large quantities of eye ointments with 'Vaseline,' and have employed them on numerous maladies with very great success, and I can affirm that 'Vaseline' is very precious in ocular therapeutics, and must replace all the ointments in use at the present time."

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"In six cases of small-pox I have used Vaseline with eminent success—one a severe case of variola vera—a boy sixteen years old, not vaccinated.

"It developed the disease rapidly, and shortened considerably the duration of it—the time varying from seven to twenty days, the latter period for the most serious case only."

"While the application of Vaseline was regularly renewed, all inflammation and fever were kept off, and none of the patients, at any time, suffered any pain or great inconvenience, whereas, if neglected, the patient would become irritable and feverish."

"Applied internally, it removed the small-pox in the mouth and throat in a few days."

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Ung.: Hydrargyri: Nitratis (Citrine Ointment)	Cerat.: Resinæ.
Cerat.: Plumbi Sub-acetatis (Goulards Cerate)	Cerat.: Simplex.

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Cheken (known also as Chekan and Chequen), was introduced to the profession of England through a report of results following its use in chronic bronchitis or winter cough by Wm. Murrell, M.D., M.R.C.P., Assistant Physician to the Royal Hospital for Diseases of the Chest, and Lecturer on Practical Physiology at the Westminster Hospital. Dr. Murrell's report is very favorable and he has supplemented it by private advices to us expressing great satisfaction with the drug in the affections in which he has employed it. He regards it as one of the most valuable introductions of late years, and pronounces it a drug of very superior properties in the treatment of **chronic bronchitis**, acting in this affection both as an anodyne and exerting a favorable influence over the organic changes in the mucous membrane. It is certainly a remedy which merits a thorough trial at the hands of the profession of this country.

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("MOUNTAIN SAGE.") *Artemisia Frigida.* Fluid extract of the herb. Dose one to two fluid drachms.

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The success which has attended the administration of this drug in "Mountain Fever," has suggested its employment in all febrile conditions attended with suppression of the secretions of the skin and kidneys. Its action in fever seems to be two-fold, acting directly on the nervous centre, thus inducing a direct lowering of the temperature, and facilitating the radiation of the heat through diaphoresis which it stimulates. Under its use, the kidneys are also aroused to activity, and the solid constituents of the urine proportionately increased. Therapeutic tests have corroborated the opinion formed of it on theoretical grounds.

PERSEA.

(ALLIGATOR PEAR.) Fluid extract of the seeds. Dose 30 to 60 minims. This remedy is now for the first time presented to the profession of this country. It is introduced on the recommendation of Dr. Henry Froehling, of Baltimore, Maryland, who while acting in the capacity of botanist and scientist to an exploring expedition in Southern Mexico, became familiar with the drug both from reports of the natives and personal experience, as a remedy in **intercostal neuralgia**. The following extract from Dr. Froehling's report will give some conception of the nature of this remedy.

"A common experience among physicians is that some cases of intercostal neuralgia are very troublesome and obstinate, resisting almost every kind of treatment; particularly is this the case in malarial districts. In such cases I would recommend the fluid extract of Persea seed. In my own person and in every case in which I have employed it I have been highly gratified with the result. Those of my medical friends to whom I have given samples of the preparation warmly endorse my opinion of it as above and I cannot but believe that further trial of it will cause it to be regarded as a valuable addition to our list of medicines."

Dr. Froehling also mentions the fact that Persea has been employed with benefit in the expulsion of tapeworm.

COCA.

(ERYTHROXYLON COCA.) The evidence in favor of Coca is to prove it a powerful nervous stimulant, through which property it retards waste of tissue, increases muscular strength and endurance, and removes fatigue and languor, due to prolonged physical or mental effort. While indicated in all conditions presenting these symptoms it has an especial indication in the treatment of the **opium and alcohol habits**. In these deplorable conditions it has been found to possess extraordinary properties—relieving the sense of untold bodily and mental misery which follows the withdrawal of the accustomed stimulus, thus preventing a return to the narcotic, and affording an opportunity for building up the system by the administration of restorative tonics.

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