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THE

CANADA LANCET

A Monthly Journal of Medical and Surgical Science, Criticism and News.

(Index next page)

Vol. XV. No. II. | TORONTO, JULY, 1883. | Price 30 C. $3 per An

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THE CANADA LANCET.

VOL. XV. TORONTO. JULY, 1883. No. 11.

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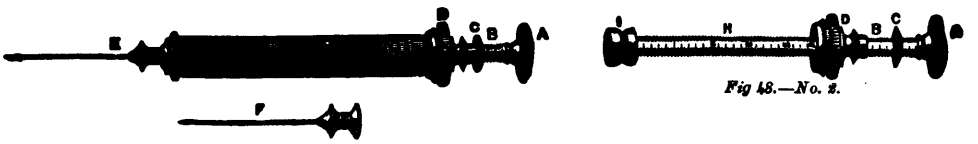

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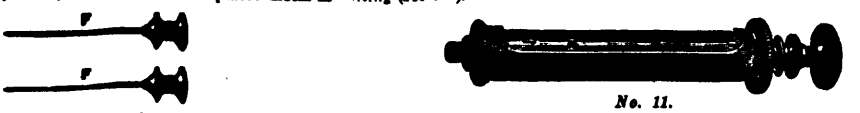

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CALCIUM SULPHIDE, 1 gr.	1 00
CALOMEL, ¼ gr. 1, 2 and 3 grs.	40
COPAIBÆ, U. S. P.	50
COPAIBÆ COMP.	80
Pil. Copaib. Resin Guaiac. Ferri Citrat. Oleo-Resin Cubebæ.	
DUPUYTREN	50
Pulv. Guaiac. 3 grs. Hydg. Chlor. Cor. 1-10 gr. Pulv. Opii. ¼ gr.	
GONORRHŒA	60
Pulv. Cubebæ, 2 grs. Bals. Copaib. Solid, 1 gr. Ferri Sulph. ½ gr. Terebinth. Venet. 1½ grs.	
HYDRARGYRI, U. S. P., 3 grs.	40
HYDRARGYRI COMP.	75
Mass. Hydrarg. 1 gr. Pulv. Opii, ¼ gr. Pulv. Ipecac, ¼ gr.	
HYDRARG. IOD. ET OPII. (Ricord's,)	75
Hydrarg. Iodid. 1 gr. Pulv. Opii, ½ gr.	
IODOFORM ET FERRI	1 50
Iodoform, 1 gr. Ferri Redact, 1¼ gr.	
IODOFORM ET FERRI, ET NUC VOM.	1 50
Iodoform, 1 gr. Ferri Redact. 1 gr. Ext. Nuc. Vom. ¼ gr.	
IODOFORM, 1 gr.	1 00
POTASS. IODID, 2 grs.	85
ACID ARSENIOUS, 1-20, 1-30 and 1-50 grs.	40
MERCURY IODIDE, ¼ gr.	40
MERCURY IODIDE, ½ gr.	50
MERCURY IODIDE RED. 1-16 gr.	40

ANODYNES.

ANODYNE	75
Pv. Camphoræ, 1 gr. Morphiæ Acetat, 1-20 gr. Ext. Hyoscyami, 1 gr. Ol. Res. Capsici, 1-20 gr.	
IPECAC ET OPII. 3½ grs. (Pulv. Doveri, U. S. P.)	50
CALOMEL ET OPII.	85
Calomel, 2 grs. Opium, 1 gr.	
OPII, U. S. P., 1 gr.	60
OPII ET CAMPHORÆ, ET TANNIN.	80
Pulv. Opii, ¼ gr. Camphoræ, 1 gr. Acid Tannic. 2 grs.	
CAMPHOR ET EXT. HYOSCYAMUS	50
Camphor, 1 gr. Ext. Hyoscy. Eng. 1 gr.	
OPII ET CAMPHORÆ	80
Pulv. Opii, 1 gr. Camphoræ, 2 grs.	
EXT. CANNABIS INDICA, ¼ gr.	60
MORPHIÆ ACET, ⅛ gr.	70
MORPHÆ SULPHATE, ⅛ gr.	70
MORPHIÆ SULPHATE, ¼ gr.	1 00

ANTHELMINTICS.

ANTHELMINTIC	1 00
Santonin. Calomel, aa. 1 gr.	
SANTONIN, 1 gr.	1 00

ANTISPASMODICS.

ALOES ET ASSAFŒTIDA, U. S. P.	40
ANTI-CHOROMANIA	75
Zinci Valer. 2 grs. Ferri Valer, ½ gr. Ext. Sumbul. ½ gr.	
ASSAFŒTIDÆ, U. S. P.	40
ASSAFŒTIDÆ, 2 grs.	40
FERRI VALER, 1 gr.	1 00
ZINCI VALERIAN, 1 gr.	1 00
ATROPIÆ, 1-60 gr.	75
ATROPIÆ, 1-100 gr.	75
EXT. BELLADONNA, (Eng.) ¼ gr	40

ANTIPERIODICS.

AGUE	75
Chinoidin, 2 grs. Ext. Coloc. Co. ½ gr. Ol. Pip. Nig. 1-6 gr. Ferri Sul. ½ gr.	

ANTIPERIODICS, Cont'd.

	Per 100
ANTI-CHILL	1 00
Chinoidin, 1 gr. Ferri Ferrocyanid, 1 gr. Ol. Piper. Nig. 1 gr. Ac. Arsenious, 1-20 gr.	
ANTI-MALARIAL	1 50
Quiniæ Sulph. 1 gr. Cinchoniæ Sulph. ½ gr. Ferri Sulph. Exs. ½ gr. Ac. Arsenious, 1-40 gr.	
ANTI-MALARIAL (Philadelphia.)	1 00
Ferri sulph. 1 gr. Pv. Capsicum, ⅛ gr. Cinchonid. Sulp 2 grs. Strychniæ, 1-30 gr.	
QUINIÆ CUM CAPSICUM	1 50
Quiniæ Sulph. 1 gr. Capsici, ¼ gr.	
ANTI-PERIODIC	80
Cinchonidiæ Sulph. 1 gr. Res. Podophylli, 1-20 gr. Strychniæ Sul. 1-33 gr. Gelsemin, 1-20 gr. Ferri Sulph. Exs. ½ gr. Ol. Res. Capsici, ⅒ gtt.	
CHINOIDIN, 2 grs.	50
CHINOIDIN, COMP.	1 00
Chinoidin. 2 grs. Ferri Sulph. Exsic. 1 gr. Piperina, ½ gr.	
CINCHONIÆ SULPH. 2 grs.	75
CINCHONIDIÆ SALIC. 2½ grs.	1 75
CINCHONIDIÆ SULPH, 1 gr.	75
CINCHONIDIÆ SULPH, 2 grs.	1 35
CINCHONIDIÆ SULPH, 3 grs.	1 95
QUINIÆ SULPH. ½ gr.	90
QUINIÆ SULPH. 1 gr.	1 40
QUINIÆ SULPH. 2 grs.	2 75
QUINIÆ BI-SULPH. 1 gr.	1 40
QUINIÆ BI-SULPH. 2 grs.	2 75
QUINIÆ BI-SULPH. 3 grs.	4 00
QUINAMINE, 1 gr.	70
QUINAMINE, 2 grs.	1 35
QUINAMINE, 3 grs.	1 95

APERIENTS.

ALOES ET MASTICH	50
ALOES ET MYRRHÆ, U. S. P.	50
ANDERSON'S SCOTS	40
Pv. Aloes Socot. Pv. Saponis. Pv. Colocynth, Pv. Gambogiæ,	
ANTI-CONSTIPATION	75
Podophyllin, ⅒ gr. Ext. Nuc. Vom. ¼ gr. Pv. Capsicum, ¼ gr. Ext. Belladonnæ, ⅒ gr. Ext. Hyoscyami, ¼ gr.	
APERIENT	85
Ext. Nuc. Vom. ⅛ gr. Ext. Hyoscyami, ½ gr. Ext. Coloc. Co. 2 grs.	
CHAPMAN'S DINNER PILLS	60
COLOCYNTH ET HYOSCYAMUS	75
Ext. Coloc. Co. 2½ grs. Ext. Hyoscyami, 1½ gr.	
COOK'S, 3 grs.	50
LAXATIVE	60
Pulv. Aloes Soc. 1 gr. Sulphur, 1-5 gr. Res. Podophylli, 1-5 gr. Res. Guaiac. ½ gr. Syr. Rhamni, q. s.	
LEPTANDRIN, 1 gr.	75
LEPTANDRIN COMP.	1 00
Leptandrin, 1 gr. Irisin, ¼ gr. Podophyllin, ¼ gr.	
PODOPHYLLIN ET HYOSCYAMUS	60
Podophyllin, Ext. Hyoscyami. aa ½ gr.	
PODOPHYL. COMP. (Eclectic.)	75
Podophyllin, ¼ gr. Leptandrin, 1-16 gr. Juglandin, 1-16 gr. Macrotin, 1-32 gr. Ol. Res. Capsici, q. s.	
PODOPHYL. ET BELLAD.	75
Podophyllin, ¼ gr. Ext. Bellad. ½ gr. Ol. Res. Capsici, ¼ gr. Saccharum Lact. 1 gr.	
TRIPLEX	75
Aloe Socot. 2 grs. Mass. Hydrarg, 1 gr. Podophyllin, ¼ gr.	

ASTRINGENTS.

	Per 100
ASTRINGENT	60
Ext. Geranii 2 grs. Pv. Opii, ¼ gr. Ol. Menth. Pip. 1-20 gtt. Ol. Res. Zing. 1-20 gtt.	
OPII ET PLUMBI ACET.	60
Pulv. Opii, ½ gr. Plumbi Acet. 1½ gr.	

CATHARTICS.

CATHARTIC COMP. U. S. P.	50
CATHARTIC COMP. IMPROVED	50
Ext. Coloc. Comp. Ext. Jalap, Podophyl. Leptandrin, Ext. Hyoscyami, Ext. Gentian, Ol. Menth. Pip.	
CATHART. COMP. CHOLAGOGUE	60
Res. Podophylli, ½ gr. Pil. Hydrarg, ¼ gr. Ext. Hyoscyami, ½ gr. Ext. Nuc. Vom. 1-16 gr. Ol. Res. Capsici, ⅛ gtt.	
GAMBOGIÆ COMP.	40
Pulv. Gambogiæ, Pulv. Aloes Socot. Pv. Zingib. Jam. Pv. Saponis,	
HEPATICA	80
Pil. Hydrarg. 3 grs. Ext. Coloc. Co. 1 gr. Ext. Hyoscyami, 1 gr.	
PODOPHYLLIN, 1 gr.	75
RHEI ET HYDRARG	80
Pulv. Rhei, Mass. Hydrarg. } 4 grs. Sodii Carb. Exs.	
HYDRASTIN, ½ gr.	95
LEPTANDRIN, ¼ gr.	40
PODOPHYLLIN, ¼ gr.	40
PODOPHYLLIN, ½ gr.	50
RHEI COMP. U. S. P.	75
Pulv. Rhei, 2 grs. Pulv. Aloes Socot. 1½ gr. Myrrh, 1 gr. Ol. Menth. Pip.	

DIAPHORETICS.

ANALEPTIC	60
Pv. Antimonialis. ¾ gr. Pv. Res. Guaiac. 1 gr. Pv. Aloes. Socot. ¾ gr. Pv. Myrrhæ, ½ gr.	
DIAPHORETIC	75
Morphiæ Acetat, 1-25 gr. Pv. Ipecac, ¼ gr. Pv. Potass. Nitrat. 1 gr. Pv. Camphoræ, ¼ gr.	

EMMENAGOGUES.

EMMENAGOGUE	1 40
Ergotine, 1 gr. Ext. Hellebore Nig. 1 gr. Aloes, 1 gr. Ferri Sul. Exs. 1 gr. Ol. Sabinæ. ½ gr.	
HOOPER, (Female Pills) 2½ grs.	40
PIL. PHOSPHORI CUM CANTHARIDE CO.	1 50
Phosphori, 1-50 gr. Pv. Nuc. Vom. 1 gr. Sol. Canthar. Conc't 1 m.	

SEDATIVES.

BISMUTH ET IGNATIA	1 50
Bismuth Sub. Carb. 4 grs. Ext. Ignat Amara, ½ gr.	
BISMUTH ET EXT. NUC VOM.	1 50
Bismuth Sub. Carb. 4 grs. Ext. Nuc. Vomicæ, ¼ gr.	
CAMPHOR MONO-BROMATED, 2 grs	1 50
SEDATIVE	75
Ext. Sumbul, ½ gr. Ext. Valerianæ, ½ gr. Ext. Hyoscyam, ½ gr. Ext. Cannab. Ind. ⅒ gr.	
ACONITIÆ, 1-60 gr.	75
EXTRACT IGNATIA AMARA, ¼ gr	50
GELSEMIN, ¼ gr.	75
PIL. PHOSPHORI CUM CANNABE INDICA	1 75
Phosphori, 1-50 gr. Ext. Cannab. Ind. ¼ gr.	

TONICS.

ALOES ET FERRI, U. S. P.	40
Pulv. Aloes, 1 gr. Aromatic Powder, 1 gr. Ferri Sulph. Exsic. 1 gr. Confec. Rosæ, q. s.	

TONIS, Continued.

	Per 100
ALOES ET NUC VOM	50
Pulv. Aloes Soc. 1½ gr. Ext. Nuc. Vomicæ ½ gr.	
ASSAFŒTIDÆ COMP.	40
Assafœtidæ, 2 grs. Ferri Sulph. Exsic. 1 gr.	
DAMIANA CUM PHOSPH. ET NUC VOM.	1 50
Ext. Damiana, 2 grs. Phosphori, 1-100 gr. Ext. Nuc. Vom. ½ gr.	
FERRI, (Quevennes) 2 grs.	75
FERRI CARB. (Vallett's) U. S. P. 3 grs.	40
FERRI CITRAT, 2 grs.	50
FERRI IODID. 1 gr.	80
FERRI ET QUAS. ET NUC. VOM.	75
Fer. per Hydrog. 1½ gr. Ext. Quassia, 1 gr. Ext. Nuc. Vom. ¼ gr. Pulv. Saponis, ½ gr.	
FERRI ET STRYCHNIÆ	75
Ferrum per Hydr, 2 grs. Strychniæ, 1-60 gr.	
FERRI SULPH. EXS. 2 grs.	40
NEURALGIC	2 75
Quiniæ Sulph. 2 grs. Morphiæ Sulph. 1-20 gr. Strychniæ, 1-30 gr. Acid Arsenious, 1-20 gr. Ext. Aconiti. ½ gr.	
NEURALGIC, (Brown Sequ'd)	2 00
Ext. Hyoscyami, ½ gr. Ext. Conii. ½ gr. Ext. Ignat. Amar. ½ gr. Ext. Opii, ½ gr. Ext. Aconiti, ½ gr. Ext. Cannab. Ind. ¼ gr. Ext. Stramon, 1-5 gr. Ext Belladon. 1-6 gr.	
QUINIÆ COMP.	1 50
Quiniæ Sulph. 1 gr. Fer. Carb. (Vall.) 2 grs. Acid Arsenious, 1-60 gr.	
QUINIÆ ET FERRI	1 50
Quiniæ Sulph. 1 gr. Ferr. per Hydrog. 1 gr.	
QUINIÆ ET FERRI CIT. 2 grs.	1 00
QUINIÆ ET FERRI ET STRYCH. PHOS.	1 50
Quiniæ Phos. 1 gr. Ferri Phos. 1 gr. Strychniæ Phos. 1-60 gr.	
QUINIÆ IODOFORM ET FERRI	2 25
Iodoform, 1 gr. Fer. Carb. (Vall's) 2 grs. Quiniæ Sulph. ½ gr	
QUINIÆ ET FERRI, (Valer) 2 grs	3 00
TONIC	60
Ext. Gentianæ, 1 gr. Ext. Humuli. ½ gr. Ferri Carb. Sacch. ¼ gr. Ext. Nuc. Vom. 1-20 gr. Res. Podophylli, 1-25 gr. Ol. Res. Zingiber ½ gtt.	
ZINCI PHOSPHIDE AND NUC VOM	1 00
Zinci Phos. ½ gr. Ext. Nuc. Vom. ¼ gr.	
STRYCHNIÆ, 1-16, 1-20, 1-30, 1-32, 1-40 and 1-60 gr.	40
STRYCHNIÆ SULPH. 1-32 gr.	40
ZINC PHOSPHIDE, 1-6 and ¾ gr.	75
PIL. PHOSPHORI, 1-25, 1-50, 1-100 grs.	1 00
PIL. PHOSPHORI COMP.	1 50
Phosphori, 1-100 gr. Ext. Nuc. Vom. ¼ gr.	
PIL. PHOSPHORI CUM NUCE VOM	1 50
Phosphori, 1-50 gr. Ext. Nuc. Vom. ¼ gr.	
PIL. PHOSPHORI CUM FERRO	1 50
Phosphori, 1-50 gr. Ferri Redact. 1 gr.	
PIL. PHOSPHORI CUM FERRO ET NUC VOM.	1 50
Phosphori, 1-100 gr. Ferri Carb. 1 gr. Ext. Nuc. Vom. ¼ gr.	
PIL. PHOSPHORI CUM FERRO ET QUINIA ET NUC VOM.	2 00
Phosphori, 1-100 gr. Ferri Carb. 1 gr. Quiniæ Sul. 1 gr. Ext. Nuc. Vom. ¼ gr.	
PIL. PHOSPHORI CUM QUINIA	2 00
Phosphori, 1-50 gr. Quiniæ Sul. 1 gr.	
PIL. PHOSPHORI CUM QUINIA CO	1 50
Phosphori, 1-50 gr. Ferri Redact, 1 gr. Quiniæ Sul. ¼ gr. Strychnia, 1-60 gr.	
QUINIÆ ET FERRI CARB.	1 50
Quiniæ Sulph. 1 gr. Ferri Carb. 2 grs.	

A CLASS OF MEDICINES EFFICACIOUS AND EASY OF ADMINISTRATION.

GENTLEMEN:—

Although a practitioner of over forty years, I think I may feel privileged to express my great pleasure and appreciation of the new class of remedies prepared by you, called "Parvules." I regard them the greatest improvement in modern medicine, and I could scarcely practice my profession without them, as they are so handy, so convenient and easily taken by children and adults. Their most important quality is their unvarying and *reliable* strength and efficacy. I can obtain with a grain or less of Calomel, with a grain or less of Aloin, and with a grain or less of Podophyllin, divided respectfully into the tenth, twentieth or fortieth part of a grain, in "Parvules," all that I could desire in most cases, and in a more satisfactory manner than in the usual form. I have used successfully a "Parvule" of one-fiftieth of a grain of Sulph. Morphia repeatedly for two or three hours, and have relieved pain without the least nausea or vomiting in patients that could not bear opiates in any other form; I do not know what to attribute this to, except the peculiar mode of preparing the "Parvules," as they are so readily dissolved and absorbed after being taken, and in indorsing them I must disclaim any favoritism or sympathy with Homœopathy; a "Parvule" given every hour it will be seen is not Homœopathy, in theory or practice. I usually give two "Parvules" of Calomel every hour until six or seven doses are taken, and the result is the same as with ten grains of the same, without the embarrassing effect. I give four or five "Parvules" of Aloin, the effect is the same as four or five Cathartic Pills, also with the Podophyllin "Parvules;" they will relieve habitual constipation, derangement of the liver and digestive organs, if given, one or two, three times a day.

I have no doubt that every practitioner who will use these "Parvules" will find the same results which convinced me of their importance and convenience. I have no other medicine chest in my daily rounds, than my pocket case of "Parvules."

Yours very truly,

Reaville, N. J., GEORGE P. REX, M. D.

PARVULES.

Small doses for frequent and easy administration.

Acidi Arseniosi.....1-100 gr.
Medical properties—Alterative, Antiperiodic.

Acidi Salicylici.....1-10 gr.
Med. prop.—Antirheumatic.

Acidi Tannici.....1-20 gr.
Med. prop.—Astringent.

Aconiti Rad.....1-20 gr.
Med. prop.—Narcotic, Sudorific.

Aloin.....1-10 gr.
Med. prop.—A most desirable cathartic.

Aluminis.....1-10 gr.
Med. prop.—Astringent.

Ammonii Chloridi.....1-10 gr.
Med. prop.—Diuretic, Stimulant.

Antimonii et Potass. Tart.....1-100 gr.
Med. prop.—Expectorant, Alterative.

Arnicæ Flor.....1-5 gr.
Med. prop.—Narcotic, Stimulant, Diaphoretic.

Arsenici Iodidi.....1-100 gr.
Med. prop.—Alterative.

Belladonnæ Fol.....1-20 gr.
Med. prop.—Narcotic, Diaphoretic, Diuretic.

Calomel.....1-20 gr.
Med prop.—Alterative, Purgative.

Camphoræ.....1-20 gr.
Med. prop.—Diaphoretic, Carminative.

Cantharidis.....1-50 gr.
Med. prop.—Diuretic, Stimulant.

Capsici.....1-20 gr.
Med. prop.—Stimulant and Carminative.

Cathartic Comp. Official.....1-3 gr.
Med. prop.—Cathartic.

Cathartic Comp. Improved.....1-3 gr.
Med. prop.—Cathartic.

Digitalis Fol.....1-20 gr.
Med. prop.—Sedative, Narcotic, Diuretic.

Dover's Powder.....1-3 gr.
Med. prop.—Anodyne, Soporific.

Ergotinæ.....1-10 gr.
Med. prop.—Emmenagogue, Parturient.

Ferri Redacti.....1-10 gr.
Med. prop.—Tonic.

Gelsemini Rad.....1-50 gr.
Med. prop.—Nervous and Arterial Sedative.

Hydrarg. Bi-Chlor.....1-100 gr.
Mep. prop.—Mercurial, Alterative.

Hydrarg. cum Creta.....1-10 gr.
Med. prop.—Alterative.

Hydrarg. Iodid.....1-20 gr.
Med. prop.—Alterative.

Hydrastin.....1-20 gr.
Med. prop.—Tonic, Astringent.

Iodoformi.....1-10 gr.
Med. prop.—Alterative.

Ipecac.....1-50 gr.
Med. prop.—Emetic, Expectorant.

Morphiæ Sulph.....1-50 gr.
Med. prop.—Narcotic, Sedative.

Nucis Vomicæ.....1-50 gr.
Med. prop.—Tonic, Stimulant.

Opii.....1-40 gr.
Med. prop.—Narcotic, Sedative, Anodyne.

Phosphorus.....1-200 gr.
Med. prop.—Nerve Stimulant.

Piperinæ.....1-20 gr.
Med. prop.—Tonic, Antiperiodic, Carminative.

Podophyllini.....1-40 gr.
Med. prop.—Cathartic, Cholagogue.

Potass. Bromidi.....1-5 gr.
Med. prop.—Alterative, Resolvent.

Potass. Arsenitis.....1-100 gr.
Med. prop.—Alterative.

Potass. Nitratis.....1-10 gr.
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Quiniæ Sulphatis.....1-10 gr.
Med. prop.—Tonic, Antiperiodic.

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Med. prop.—Anthelmintic.

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Med. prop.—Nerve Stimulant, Tonic.

THE DOSE of any of the Parvules will vary from one to four according to age, or the frequency of their administration. For instance, one Parvule every hour, or two every two hours, or three every three hours, and so on for adults. For children, one three times a day is the minimum dose.

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PHYSICIANS' PRESCRIPTIONS.

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This Tonic Elixir, so agreeable to the taste, comprises all the more active principles of Calisaya Bark in their native combination, and derives additional energy from its association with several of the most grateful Aromatic Tonics. It is admirably adapted to convalescents as an effective invigorator and restorative, rapidly improving the appetite and impaired digestion, and contributing much to cheerfulness and buoyancy of mind.

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The Elixir combines the superior tonic properties of Calisaya Bark with those of the Pyrophosphate of Iron, affording a pleasant cordial and antiperiodic. Each dessert spoonful contains 1 gr. of the Iron Salt with 2 grs. of the Extract of Bark. The dose for an adult is a dessertspoonful three times a day, immediately before or after meals.

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Each dessertsponful contains one grain Phos. Quinia, two grains Phos. Iron, and one sixtieth grain of Phos. Strychnia. A powerful general tonic, particularly adapted to cases of Debility and Nervous Prostration. Used with the greatest benefit in Chlorosis, Indigestion, and tendency to Paralysis. Given in doses of one to two teaspoonfuls three times a day.

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Lime, Soda, Potassa and Iron. Dr. Churchill's Remedy for Comsumption, Etc.

Each teaspoonful contains 2 grains of the Lime, 1⅓ grains of Soda, 1 grain potassa, and two-third grain of the Iron Salt. Dose.—One teaspooneful.

SYRUP OF THE PHOSPHATES COM. (Warner & Co.)

Iron, Lime, Soda and Potash. Chemical Food.)

This Preparation contains the Phosphates in a soluble form, with an excess of Phosphoric Acid. It is an eligible and agreeable method of administering the Phosphates. It is pleasant to the taste, does not derange the digestive organs and assimilates well, furnishing a nutritive tonic, well adapted to enfeebled constitutions. Each teaspoonful contains 1 grain of Phosphate of Iron, 2½ grains of Phophate of Lime, and a emaller phosphates of Soda and Potash.

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Liebig's Ext. Citrate of Iron and Malaga Wine. Tonic, Nutritive, Stimulant·

This Preparation possesses in the highest degree the valuable properties of its ingredients so combined as to form a pleasant remedy for Debility, Exhaustion, Impoverishment of the Blood, Convalescence, etc. Dose —One tablespoonful, containing one grain of Citrate Iron and the virtues of one ounce of Beef.

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Original Communications.

PASTEUR ON THE ATTENUATION OF VIRUSES.*

TRANSLATED BY C. W. COVERNTON, M.D., M.R.C.S., TORONTO.

The managing committee, aware that I had the intention of passing the holidays in the Jura, a short railway journey from your beautiful city of Geneva, have had the kindness to invite me to read a paper on the "Attenuation of Virus." I have accepted with readiness, happy to find myself, even for a short time, the guest of a people friendly to France in adversity as in prosperity. Besides I entertained the hope of meeting here with the opponents of my labors in recent years. If congresses are a ground fitted for drawing together and conciliation, they are in the same degree a fitting arena for courteous discussion. We are all animated with a high motive—the motive of progress and truth. You are aware, gentlemen, that our knowledge of viruses has been recently enriched by valuable discoveries which had their origin in the researches that I published in 1880 on the microbe of the disease termed chicken cholera. A virus, when it is represented or constituted by a microbe, may without any marked change in its general morphology be attenuated in its virulence, preserve this in culture, produce germs, and under its new state communicate a passing ailment capable of protecting from the mortal disease peculiar to the action of this virus in its natural state. This most valuable modification may be produced by a simple exposure of the virus to the oxygen of the air. This action of the oxygen is further variable with the temperature at which it operates and with the medium containing the virus and in which it has taken its origin. These facts, first established in investigating the microbe of chicken cholera, have been extended since to the microbe of charbon or anthrax in a series of studies in which I had for my collaborators M. M. Chamberland and Roux. About the temperature of 16°, as also about that of 43° C. (temperatures which are near to those in which the culture of the bacillus is impossible), this bacillus no longer forms spores in the different broths of culture, fowl broth for example. Its exposure to the contact of the air at these temperatures, particularly at that of 42 and 43, attenuates it progressively from day to day until it has eradicated from it all virulence and soon causes it to perish by rendering it unfit for any culture. The certain proof that it is to the oxygen of the air that we must attribute the attenuation of the microbe of chicken or fowl cholera has been established by a very simple method. It suffices to compare the effects of cultures where oxygen is excluded with those of similar cultures exposed to the influence of the air. These perish in a few months, having passed through different phases of attenuation; whilst the cultures protected from exposure to air in sealed tubes show themselves to be for this microbe very virulent after the lapse of several years. The peculiarities of the bacillus anthracis, or microbe of charbon, differ in many respects from those of the microbe of fowl cholera. The differences are that it lends itself much less easily than its congener to observations of the nature of which I have just spoken concerning the action of the oxygen. That is due to this circumstance, that the microbe of charbon under its form of filaments dies quickly in a tube sealed from the action of the air. The difficulty can be interpreted, and place still in evidence the influence of the air on the microbe of charbon, by the following artifice. Suppose, to fix the idea, that a broth is seeded, and that it is distributed in closed tubes subsequently placed at a temperature of 42°—43°, and that they are dead in the tubes in six days, which may be easily proved in seeding every day one of the tubes. There is nothing to prevent your making with the culture of the fifth day, on the eve of the death of the closed tubes, a new culture equally protected from the air, which shall be in its turn at 42—43°. If the new culture dies also in six days, a third may be prepared which shall be distributed also in closed tubes, the seeding of which shall be taken from the culture of the

* Delivered before the Congress at Geneva, Sep. 6th, 1882.

fifth day, and so on in succession. At the same time that we are proceeding with this series of successive cultures *in vacuo*, we prepare parallel cultures in flasks in contact with the air. We will now compare the virulence of the closed tubes with the virulence of the cultures of the same days which have been exposed to the contact of the air. We have established that the virulence of the cultures exposed to the air has become more and more attenuated and cannot produce the death of the cobayes,* whilst those of the cultures in closed tubes kill. The action of the oxygen of the air in the attenuation of the anthrax or charbon microbe is then equally incontestable with that on the microbe of fowl cholera. The influence of oxygen for the attenuation of the microbe of charbon may be viewed also by a remarkable peculiarity. It is known that M. Toussaint has announced the attenuation of this microbe by the effect of heat alone, and that we can procure by this means vaccinal bacterides; but we have recognized that these bacterides do not preserve in their cultures their produced attenuation. Immediately the first culture of the blood is heated it again becomes virulent and deadly. The bacterides attenuated by oxygen, on the contrary, preserve their attenuation in the cultures. This difference has a greater importance and it is to it in part that we must attribute the difficulty of obtaining charbon vaccinations practically utilizable by the method of M. Toussaint. We do not at all hold the opinion recently advanced to the contrary by M. Chauveau in a note read at the Academy of Sciences. There is at any rate nothing in it the least reliable, sure or regular, whatever precaution may be taken, in the effect of heat on charbonized blood, even when exercised when very thin and at a fixed temperature.

The principal object of the communication that I have the honor to make to you is to furnish new examples of attenuation by the oxygen of the air, and to demonstrate that we have to do with a general method of attenuation of certain viruses. I commence with a microbe which is shown for the first time under circumstances as interesting as curious. I have again had as collaborators in the studies on which I am about addressing you M.M. Chamberland and Roux, and in addition particularly M. Thullier. It is in their name equally with my own that I speak. On the 10th of December, 1880, I was requested by Dr. Lannelongue, surgeon of the Hospital St. Eugène, to visit a poor child of five years seized with hydrophobia. She had been bitten on the face a month previously by a mad dog. Four hours after her death, which happened on the 11th of December, we inoculated two rabbits with mucus from the palate diluted with water. The rabbits died in less than 36 hours. In their blood we recognized a special microbe, cultivable in a state of purity, and from which successive cultures occasioned death to rabbits, their blood always having present the same microbe. The cadaveric lesions consisted in a partial dilatation of the venous system, in a swelling and wine lees redness of the ganglions of the groin, of the arm-pit and of the trachea. This is always hæmorrhagic. A little saliva moistens the lips and runs from their commissure. The lungs, generally œdematous, are sometimes hepatized. At the point of inoculation made under the skin of the bowels in the cellular tissue, this is slightly œdematous and emphysematous. In a trial, when we attempted to discover the moment of the appearance of the virulent organism in the blood, we perceived that nine hours after inoculation the seeded blood cultivated the microbe of the disease, without this being as yet visible by the microscope; but that twelve hours after inoculation it was perceived by the aid of the instrument. The fever appeared at the same time that the microbe was shown; death took place thirty-five hours after inoculation. The temperature only sank to 40° C. two hours before death. The animal weighed 1.920 kilo. at the time of inoculation, 1.730 kilo. at the moment of death, a diminution of 190 grammes in thirty-five hours. The saliva of rabbits dead transmits invariably the disease to other rabbits. Adult guinea-pigs support perfectly inoculation with this microbe, but it kills in two or three days cobayes of some days of age. In pursuing inoculations from cobayes to young cobayes, the virulence is exalted, and we easily arrive at killing cobayes at one, two, three and four months. With the first cobayes the cellular tissue around the point of inoculation shows œdema, bathed with bloody serosity, often thick and gelatiniform; the subjacent muscles are lardaceous, thickened, and purulent. It is remarkable that in proportion to the raising of the number of the

* Guinea pigs.

order of the animals inoculated, in successive inoculations the lesions change in character; the gelatinous degenerescence of the cellular tissues, the purulence of the subjacent muscles disappear, to be replaced by a pronounced redness of these muscles. In these special conditions of exaltation of virulence, one would expect to see a cobaye die from acute septicæmia. The microscopic organism is found in abundance in the muscles, rarely, on the contrary, in the blood, and often in so small a quantity that it is not always visible to the microscope. There would seem to be a change of habitat of the microbe, in consequence of the augmentation of virulence. Here we have presented a circumstance worthy of interest; while the microbe has been augmented in virulence by passage through cobayes, it shows itself, on the contrary, less efficacious if it is reproduced in rabbits. This is not the only microbe which is thus characterized; we have made known the existence of this microbe to the Academy of Medicine in Paris, the 18th of January, 1881. We have seen then all the benefits that microby may render to etiological medicine. At the same time that we were making a study of this pathogenic microbe, Dr. Maurice Reynaud, of regrettable memory, equally devoted himself with Dr. Lannelongue to experimenting on rabbits with the saliva of the child seized with hydrophobia, as before mentioned, under observation at the Hospital of St. Eugène. Like us, he occasioned the death of the animals inoculated, but purely from a clinical point of observation; leaving aside the possible action of microbes that may have been introduced into the bodies of the rabbits at the same time with the rabic virus, he concluded that it was hydrophobia that he communicated to the rabbits. Until there is proof to the contrary, he said, we believe that it was from true hydrophobia that our rabbits died. M. Galtier has announced that he has transmitted hydrophobia from the dog to the rabbit, and has fixed upon eighteen days as the mean period of the incubation. The rabbits of Dr. Regnaud died much quicker, the mean of the duration between the instant of inoculation and death not being more than forty-five hours. This conclusion was not made as questioning the conclusion of Dr. Reynaud, as his experiences were derived from the transmission of hydrophobia, not from the dog, but from the human being, to the rabbit; he attributed, therefore, the difference in the period of incubation to that circumstance. Previously, viz., on the 27th of October, 1879, M. Reynaud announced that he had, by inoculations of saliva, transmitted the hydrophobic disease in man to rabbits. This first conclusion was not more exact than that which I have now recorded. It is not that it may be very easy to communicate hydrophobia in man either to the dog or to the rabbit—we have often done it—but already at this time M. Reynaud had only had to deal, to his knowledge, with rabbits dead from this new microbe. Nevertheless, if the rapid death of rabbits in these varied experiments was due to an entirely new microbe, it may be asked whether this microbe had not some hidden relation with the true microbe of hydrophobia. Was it not a strange circumstance, this salivation in our rabbits, and the easy provocation of the disease and of death by their saliva inoculated into healthy rabbits? Besides, was it not very interesting to investigate whether we should find the same virulence in the saliva of the child who died from hydrophobia at St. Eugène, and in the saliva of other people labouring under the disease?

The occasion soon presented itself for clearing up doubt. On the 23rd of February, 1881, M. Percheron, a veterinary surgeon, pointed out to me a child, six years of age, presenting all the symptoms of hydrophobia; she also had been bitten, a month previously, in the face by a mad dog. Her death took place the same day, 23rd February, at four in the afternoon. The next day, on the 24th, a little of the salivary mucus was collected, with which two rabbits were inoculated, one in the cellular tissue of the abdomen by a Pravaz syringe, the other in the face by a lancet. The last presented no symptoms; the first died in three days. Its blood presented in abundance our new microbe with its habitual virulence. At the same time a journeyman blacksmith, aged 49 years, bitten by a mad dog four months and a half previously, died on the 22nd of February at the Hospital La Pitié, under the care of Dr. Brouardel. An hour and a half after his death several rabbits were inoculated with the saliva from his mouth and mucus from the palate. Other rabbits had already been inoculated by the saliva, but taken before death—some hours, and immediately before—by Drs. Brouardel and Beaumetz. Thanks to the kindness of

these enlightened physicians, I was enabled to assure myself that not only the rabbits that I had inoculated, but some of those from whom the virus had been taken, had died from the microbe we are now discussing.

An attentive and prolonged study of the effects of the inoculation of the rabic human saliva in rabbits, enables us to establish three kinds of death : 1st, death from the new microbe ; 2nd, death from abundant purulent disorders, with baring or separation of the skin, accidents of the septic order ; 3rd, death from madness peculiar to the rabbit. This last has always a very long incubation, and is characterized invariably by paralysis of the limbs, which lasts 24, 48 or 72 hours before death. The aptitude to bite never exists, so to speak, in the rabbit madness—at least I have only seen one instance in hundreds of cases. Death from purulent disorders may take place in a few days or in a few weeks ; in this case it is rare that paralysis exists. Death by the new microbe is always rapid unless there exist purulent complications, in which case death may be retarded for several days. To sum up, the saliva of individuals affected with canine madness contains, besides the rabic virus, not characterized as yet by a cultivable microbe, a virus formed by a special microbe that can be easily cultivated, and other microbes capable of producing death by exaggerated production of purulent matter, excessive local disorders, and sometimes of introduction into the blood of common microbes. In the saliva of children who died from hydrophobia the new microbe appears abundantly, and frequently sufficiently so to occasion the death of rabbits with greater rapidity than would be done by rabic virus, or by the microbes that are the occasion of purulent and putrid disorders. This new microbe discovered in the saliva of persons seized with hydrophobia, does it exist only in this sort of saliva ? This question naturally presents itself to our mind. It is even the first that must be solved if we seek to assure ourselves of a hidden relation between this microbe and canine madness. As to the case of the new microbe existing in other saliva, it is evident that it would be independent of the rabic virus. From the studies that we have devoted ourselves to, it has resulted that the saliva of adult persons, dying from diverse maladies, did not contain the new microbe, or rather that it has been masked in our experiences by the abundance of microbes requisite for forming pus ; that, on the contrary, the saliva of children dying from diverse diseases has produced death to rabbits by the microbe that we are discussing, and that it has again been found in the saliva of persons in robust health. The new microbe then has no relation with the rabic virus. The microbe of saliva that I have been discussing is the third virulent microbe on which we have tried attenuation by the action of the oxygen of the air ; I desire to present it to you ; it is as yet unpublished, and very interesting on account of the diverse details of its history. You already know what happens to the cultures of the microbe of fowl cholera when we pass from one culture to that which follows, without placing between these cultures a long interval. The virulence of the second culture reproduces the virulence of the first without appreciable change, and it is the same with successive cultures. It is only when we allow a longer or a shorter time to elapse between two consecutive cultures, that we observe a diminution of virulence. In other words, it would appear that the oxygen of the air has only influence for attenuating a culture provided this is completed; so long as the oxygen is employed for the life, for the acts of nutrition of the microbe, its attenuating influence is not exercised in any very sensible manner ; it is not entirely nil, but it escapes ordinary observation. Our microbe of the saliva behaves like the microbe of the cholera of fowls. If you make your cultures succeed each other from twelve to twelve hours you will find in all the cultures the same virulence ; that is to say, if we take the rabbit for a criterion of virulence, these animals die as quickly and promptly by the last cultures as by the first. M. Thullier had the patience to make, under these conditions, two series of eighty cultures, and the eightieth killed the rabbits as quickly as the first. To furnish the proof of differences it would have required the sacrifice of a very considerable number of rabbits, or to have operated on animals more refractory to the virus. If we now compare successive cultures, allowing them to remain a longer or a shorter time in contact with the air before passing from one to the other by seeding, the circumstances in some particulars are very different than for those of cholera of fowls ; the cultures die quickly. One is surprised to notice that in endeavouring to seed a culture in a fresh broth, most frequently after two or three days of waiting for the

mother culture, there is complete sterility, and the death of a culture occurs all the more rapidly in proportion to the high or low number. A culture seeded directly by the virulent blood lives six to twelve or fifteen days. If with this culture we seed a second culture, with that a third, and so on, we observe a prompt diminution of the duration of life and of the virulence of the cultures; the eighth would live three or four days, whilst the twelfth would live thirty hours, the twenty-fifth twenty-six hours, the forty-eighth and the following from about twenty-two to twenty hours. These cultures inoculated about the end of their life in rabbits do not always kill them, and it is easy then to determine that among rabbits inoculated under those conditions many will afterwards resist virulent inoculations. The disease does not then relapse, at least for a long time; nevertheless the rapidity with which the cultures die renders it very difficult to seize upon the precise moment when the seeding of the culture will give a reliable vaccination. It would be necessary to be able greatly to prolong the duration of the life of the cultures. We arrive at this easily on making a medium of the culture of broth with the blood of the rabbit. The broth most fitting for the culture of the microbe is veal broth. The broth from fowl, rabbit, beef and mutton is unsuitable. Two parts of veal broth and one part of pure blood of the rabbit give, by seeding with virulent blood or with a culture in broth of the same grade, cultures which have up to forty or fifty days of duration. In the last ten days of broth cultures seeded with this blood mixture, a series of graduated virulent cultures are formed, all vaccinal in different degrees. It is altogether the action of the oxygen of the air which modifies the culture and progressively attenuates the virulence. The proof is easy to give by the means I have already illustrated, that is to say, by a comparison of cultures made and preserved and kept in contact with air with those in closed tubes or *in vacuo*. Whilst a culture made and exposed to the air perishes in a few days in veal broth, the same culture made and kept in a closed tube or *in vacuo*, is still virulent after three or four months, perhaps longer. Besides, when death occurs in the closed tubes the virulence is preserved up to the moment of death.

We are thus in possession of three microbes that may be attenuated by the same method, which contributes besides to the ready preparation of their vaccinal preventives—the microbe of fowl cholera, the microbe of anthrax or charbon, the microbe of saliva, particularly of the saliva of hydrophobics. If I add a fourth to this communication, I think that this new example will suffice to convince you, as I am myself convinced, that a general, rational method, in no ways an empirical one, of attenuating and of preparing many vaccinal antidotes has been found.

(To be continued.)

ON CANCER OF THE LARYNX.*

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I propose, in the following paper, to draw attention to some points of much practical interest in the diagnosis and treatment of malignant disease of the larynx. It has been my lot since commencing practice in Toronto to have had three such cases under observation, and I think that a brief relation of the facts of each case would make a pertinent preface to my remarks.

CASE I.—On Dec. 6, 1880, Mr. A., married, aged 57, an hotelkeeper, came to consult me with regard to a painful affection of the throat. He gave the following history: Father died, aged 49, of consumption; mother at 79, of old age. Three healthy living children; two died in infancy. No relatives on either side had any tumor or growth. He had always been in good health himself; was a moderate drinker and smoker. Had had no scald or injury of the part.

Nine months before coming to me he had a prickling sensation at the root of the tongue—no loss of voice. For last three months the voice has been getting husky; no difficulty in breathing. It came on, he said, after an attack of rheumatism. He is a spare man, and has lost flesh. There is no marked impairment of the general health—feels pretty well, in fact. Denies any specific taint. He has much pain in swallowing. The voice is indistinct, and it is painful to speak. No dyspepsia. Complains much of pain shooting up to the ears. Externally, two enlarged and indurated glands could be felt at the side of the thyro-hyoid mem-

*Read at the annual meeting of the Ontario Medical Association in Toronto, June, 1888.

brane. The base of the tongue seems thickened and hard. The tongue can only be protruded a short distance, and inclines to the left; it has deep longitudinal furrows. There was not much of the interior of the larynx visible, owing to the drooping over of the epiglottis. Posterior portion of right vocal cord and arytenoid much thickened and reddened. Epiglottis greatly enlarged and hangs over to right, being red and smooth on lingual surface. On the left, a large, unhealthy-looking ulcer, with elevated, everted and sinuous margins. I do not know the ultimate history of this case; I wrote, but received no answer.

CASE II.—This case I saw but once, on June 6th, 1881. It was that of a woman, æt. 67. The throat had been weak and inflamed for years. Had had considerable pain for last two years. Her speech had been affected for 18 months. There was much difficulty in swallowing for about the same length of time. At the time I saw her she had complete loss of voice; was unable to protrude the tongue, and only able to open the mouth about an inch. Swallows with the greatest difficulty, only a teaspoonful at a time. She is literally a walking skeleton, having been formerly very stout. The glands were enlarged and indurated about the hyoid. Much thickening of the lower portion of the pharynx, larynx and base of the tongue. Bluish warty growths were to be seen on the base of the tongue. Larynx disorganised. No family tendency to tumors or growths. Her son informed me, two months later, of her death.

CASE III.—A year ago last January, J. P., a man of 51 years, felt as though something had lodged in his throat. He had slight cough, but no pain. There was gradual increase of difficulty of breathing until I was called to see him, on the 7th of May of last year. He had pain, extending up to the ears, and great dyspnœa. He was unable to lie down, was restless, and had a frequent, weak pulse. I had him removed to the hospital, where I performed tracheotomy, with immediate relief. Patient went off to sleep and slept for nearly twenty hours, awakening much refreshed. The operation I did was Boze's. He began to have difficulty of swallowing about the new year; the voice began to fail about the same time. The glands in the neck were enlarged for about six months. He has considerable pain in the right shoulder. No family history of tumor. He is a moderate smoker, but, occasionally, an immoderate drinker. No syphilis. General health fair, but is weak from want of food.

Laryngoscopic exam.—Epiglottis drawn down and to right; difficult to see into larynx; a rounded reddish-grey mass lies on right ventricular band—it is firm to the feel; bluish-brown patches are to be seen at the base of the tongue as in Case 2. The growth has ulcerated; there is some fetor of the breath, and almost complete loss of voice. The pain in swallowing has increased.

The diagnosis of cancer of the larynx must be made with the laryngoscope. The subjective symptoms, such as pain, dysphagia, dyspnœa, hoarseness, and fetor of breath, may be caused by other diseases. In two of my cases I have observed bluish-brown warty growths or nodules at the base of the tongue. They have appeared late in the disease and in groups on the tongue, and in Case 2 on the fauces as well. I have not seen any account of them in any work at my command. The differential diagnosis between cancer of the larynx and late syphilitic ulceration, particularly the gummatous form, is of considerable importance. I would tabulate them roughly thus:

CANCER.	SYPHILIS.
Age—After 45.	Before 45.
Edge of Ulcer— Defined, infiltrated, hard, everted, and often scalloped.	Less defined, may be excavated and sloughy, not infiltrated or everted; reddened areola.
Pain— Pretty constant, darting up to ears.	Comparatively slight.
Glands— Submaxillary indurated and enlarged.	Same; post-cervical also affected.
Prognosis— Steady, often rapid, resists treatment.	Slow, often stationary, amenable to treatment.
Previous history— Perhaps of irritation.	Chancre, eruptions, &c.
General health— Fair.	Often broken.

Some of these points are liable to considerable variation, as, for instance, in the matter of age. Cancer may occur before 45 and syphilitic ulceration long after that age. The progress, too, of syphilitic ulceration is often very rapid and resists treatment. In many cases iodide of potassium must be given before a definite conclusion can be arrived at. The laryngoscopic appearances vary with the stage. In the early stage they closely resemble those of gumma, and appear as a reddish-grey mass, situated most frequently on one or other

ventricular band, most frequently the right; the epiglottis is also a favorite locality. After ulceration begins the appearances presented are more characteristic. An ulcer with everted, indurated edges, greyish surface, without much depth, and attended by glandular enlargement, must always be regarded with great suspicion and anxiety.

Nearly all varieties of malignant growths attack the larynx, but epithelioma is by far the most common. The prognosis is naturally very grave. It is a curious fact that while cancer of the larynx is sometimes secondary, it rarely leads to secondary deposit in organs or parts other than in its immediate neighborhood. This is readily explainable by the sparsity of glandular or lymphatic connections with other parts. The very late failure of the general health may be explained in the same way. The duration of life with epithelioma is about eighteen months; with encephaloid, three years. Patients often perish suddenly from œdema of the glottis; but where life is prolonged, death occurs by apnœa; or where tracheotomy has been done, by exhaustion. The causation of cancer of the larynx is as obscure as that of cancer in other situations.

Treatment.—Relief from pain and discomfort, as well as a modification of the course of the disease, may be obtained by spraying the part twice a day with Dobell's solution, or by insufflating a powder containing morphia, gr. ¼; iodoform, gr. ½, and a little starch. The powder is best suited to the stage of ulceration. I need hardly mention that everything should be done to keep up the general health. But I wish to lay particular stress upon the value of early tracheotomy. Fauvel, of Paris, tells us that it adds months and even years to the patient's life. In seven cases of encephaloid left to their own course, life lasted for three years; while in eight which were tracheotomized, the average duration of life was three years and nine months. In six cases of epithelioma left to their own course, the mean duration of life was one year and eleven months; while in seven other cases after tracheotomy, life lasted an average of four years. In Case 3 of my own short series, life has already been prolonged for a year, for there can be little doubt that he would have died long since had he not been operated upon. These facts are very striking and merit our earnest attention. Thyrotomy can hardly be recommended, as the results have been very bad.

Extirpation of the larynx is an operation which has been practised, up to the year 1882, twenty-three times. Of the cases, sixteen were carcinoma, five sarcoma, one perichondritis with necrosis of the cartilages, and one lymphatic granuloma. Of the sixteen carcinoma cases, seven died as a result of the operation, and seven from a recurrence of the disease at from four to ten months after the operation. In one case the operation was entirely successful, and in that case the disease was confined to the box of the larynx, and the operation was done early. Of the five cases of sarcoma one died seven months later of asthenia, while the remaining case of granuloma was successful. Thus we find one case of malignant and five cases of non-malignant disease really cured by this operation. I think we may fairly consider these results brilliant. In all probability the non-malignant cases would have ended in death by apnœa had not this operation been performed.

I am strongly inclined to the opinion that when the disease is confined to the box of the larynx, and before any glandular structures are involved, the operation will prove a success even in malignant disease, and I think that an operation which can save six cases out of twenty-three from almost certain death may justly be regarded as "one of the greatest triumphs of modern surgery."

PRIMARY LATERAL SCLEROSIS.*

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As primary sclerosis of the lateral columns of the spinal cord is a comparatively new and somewhat rare disease, and believing that I have such a case in my practice, I resolved to report the same, thinking that it would not be without interest to the members of this Association. As you are aware, we are beholden to the observations and investigations of Türck, Charcot, Erb and others, for our limited knowledge of this rare and interesting disease, Türck having given the result of his researches to the world in the year 1856, Charcot in 1865, Erb and others at more

* (The patient was exhibited and the paper read before the Ontario Medical Association, in Toronto, June 6, 1883.)

recent dates; but there is still room for scientific research. We will simply report the following case, which we believe to be one of primary lateral sclerosis, and will then leave the subject entirely in your hands.

History.—H. B., æt. 36, is by occupation a farmer. He has been married six years; the father of two children, one aged 4½, the other 1½ years. He was born in Prussia, but came to Canada 27 years ago; has lived in the county of Huron, Ont., ever since. Has had no previous illness; met with an accident 10 years ago by falling from a scaffold a distance of 12 feet, the small of the back striking on the edge of a board; his back was sore for over a week afterwards. In the spring of 1882, while pulling a stick off a pile of wood, he felt a sharp pain in the small of his back. Has always been temperate in liquors; has had a good appetite all his days. Family history good; his father is healthy at the age of 65 years, mother 62 years of age and healthy; one sister died in infancy, the rest are healthy. He is 5 feet 10 inches in height, his average weight being 170 lbs.; his present weight is 160 lbs. He has moderately broad shoulders, with a somewhat flat breast. His temperament is a mixture of the sanguine and nervous, with a trace of the bilious; his complexion is fair. He has a somewhat awkward shuffling gait. Has always been a hard worker, and a good deal exposed to wet and cold. Says he has been moderate in venery, and since his illness began has been very cautious in this respect. Says that he cannot stand the cold.

Present Illness.—In July, 1882, his wife noticed him twitching in his sleep, and repeatedly awoke him, as she felt alarmed about it. He applied for treatment on the 23rd of Oct., as he felt weak, and was somewhat anxious, as well as annoyed, on account of the twitching continuing. His appetite had now begun to fail. Upon examination found tenderness moderately well marked over the third dorsal and last lumbar vertebræ. The application of hot and cold sponges gave negative results; electrical contractility appeared to be normal. He had slight symptoms of paresis in the lower limbs, and was easily tired by either standing or walking for any length of time. He also complained of weakness in the upper extremities when he attempted to do any work. When he walked he shuffled his feet along instead of lifting them lightly from the ground. When his eyes were closed he did not stagger, and presented no symptoms of ataxia. The nutrition of the muscles did not appear to suffer to any appreciable extent; sensibility was normal. Reflex excitability of the skin was only slightly increased; the tendon reflexes were greatly exaggerated. The functions of the brain, bladder and rectum were normal; sexual power was neither increased nor diminished. The most prominent and continuous symptoms were the spasmodic twitchings, spasms, and tremors of the muscles of the legs, and sometimes of those of the abdomen and thorax. These were worse after exertion and excitement, but sometimes occurred after sudden passive movements as well—or even after no movements at all, as during sleep, when the patient would be awakened by them. From the 23rd of Oct. until the middle of Nov., the patient was on Ext. ergot, fld. m. XX. three times a day, with tonics occasionally, as Ferr. et quin. cit.; also lactopeptine and other remedies to aid the digestive powers. At the same time we recommended a good, substantial, unstimulating diet, with passive exercise in the open air, sponging of the body, followed by friction, and hygienic measures generally. Hot baths to the spine were also recommended, but the suggestion was never acted upon. By the middle of Nov. he was so much improved that he helped his brother to box in a drain. Whether from the cold and wet incident to this occupation or not, he got worse after this, and, as he felt discouraged, the advice of my friend, Dr. Gunn, of Brucefield, was obtained. Dr. Gunn agreed with me as to the nature of the disease, and after consultation, we resolved to put him upon a mixture containing Potass. brom., potass. iodid. and hydrarg bichlor., with a bitter tincture. This was varied sometimes by substituting Tr. digitalis for calumba or gentian. The doses of the principal ingredients were also increased or diminished from time to time, as the symptoms seem to indicate. After this he greatly improved for a time, but afterwards relapsed, when he would be one week better and another worse; but on the whole his appetite was rather poor, which told on his general strength. The twitching of the muscles was what alarmed him most; when this was allayed, as it was under the influence of the medicine, he felt better; when it returned he felt worse.

About the 20th of April he sought the advice of Dr. Fulton, of Toronto, to whom I addressed a note, stating what my diagnosis was. At the time of his departure for the city he felt somewhat better than he had done at any period during the winter, and consequently felt inclined to delay his visit; but, as I was by no means buoyant as to the future, I urged him to go. Dr. Fulton, after a thorough examination of the patient, verified my diagnosis, as Dr. Gunn had previously done. He recommended that he should be put upon Ext. ergot. fld. 3 i., three times a day, which was done. The result of this treatment, so far as I could discern, was favorable for the space of one month, after which time the twitching began to get worse, and has been getting gradually stronger for the last two weeks. As a rule he sleeps pretty well, but on the evening of the 4th inst. he was awakened by the twitching, which begins below the knees and works upward, to use his own words, until it gets into the body, where he says he feels it shaking the liquid in his stomach. On the evening referred to he says he felt trembling or shaking in the soles of his feet, "just like lightning"—undoubtedly a rhythmical tremor—but it only lasted about two minutes. He does not feel like attempting any work; his appetite, which had improved during the month that he was on the mend, is again impaired. The patient is under close observation, and the progress of the case, either for better or for worse, will be watched by us with that interest which the nature and importance of the disease deserve.

Reports of Societies.

ONTARIO MEDICAL ASSOCIATION.

The third annual meeting of this Association was held in Toronto on the 6th and 7th inst. The attendance of members was fairly good. Dr. J. E. White, Secretary, read the minutes of the last meeting.

A communication was received from Dr. Macdonald, the President, stating that owing to indisposition he would be unable to attend that day. Dr. Richardson, of Toronto, was therefore voted into the chair.

The remainder of the morning's session was spent in receiving the reports of the Committees on Arrangements, Credentials and Papers and Business.

In the afternoon the chair was occupied by Dr. D. Clark, Vice-President.

Dr. Burt, of Paris, exhibited a patient treated for traumatic tetanus by neurotomy.

Dr. Campbell, of Seaforth, exhibited a case of primary lateral sclerosis.

Dr. McKay, of Woodstock, read a paper on the "Use of Jaborandi." He strongly approved of its use in cases of tonsillitis, asthma, scarlet fever, measles, pneumonia, and common colds.

A long discussion ensued, in the course of which the opinion was elicited that the remedy required to be administered with great caution, owing to its tendency to act on the heart and to produce salivation.

Dr. Covernton said that he had given the drug in tonsillitis, but combined with aconite. Benefit had resulted from the treatment.

Dr. Burrows, of Lindsay, read a paper on the "Plaster Wedge in Talipes;" Dr. Wolverton one on "Fatty Diarrhœa;" Dr. Groves, of Fergus, on the removal of an ovarian tumor, and Dr. McNaughton on "Fracture of the Forearm," the latter exhibiting a new splint which restored the radial curve of the arm.

Dr. Clarke, of Kingston, read a paper on "Anomalous Cases of Nervous Disease," and gave a history of one of supposed hystero-epilepsy, which had been successfully treated with carbonate of iron.

Dr. Workman read a paper on "Aphasia."

In the evening Dr. Graham, Toronto, read a paper on "Bacilli Tuberculosis," in which he argued that the position taken by Koch on this subject had been strengthened by the investigations of other pathologists. The questions they as physicians were interested in were: (1.) Can phthisis be diagnosed by means of the presence of bacilli in the sputa? (2.) Has the number of bacilli any relation to the prognosis? (3). Has the discovery aided us to any extent in the prevention and treatment of this formidable disease? Investigations led to an affirmative answer to the first question. The experiments made by several prominent Berlin physicians showed that bacilli were found in the sputa of patients suffering from phthisis, but they were not found in cases of bronchitis. The general opinion of the London medi-

cal faculty was that bacilli were found in cases of tuberculosis, and in that disease alone, and that they varied in number in proportion to the severity of the disease. The doctor then gave the results of the examination of the sputa of forty patients which he had examined. The conclusions arrived at by the doctor from the experiments were :—(1.) That bacilli are found in the sputa of almost, if not all, cases of phthisis ; it was doubtful if there was any case of active disease in which bacilli would not be found, provided the sputa came from the lungs, and five or six examinations were made. (2.) They were found on the first examination in three-quarters of the cases. (3.) The presence of the bacilli is a positive evidence of the disease. (4.) There are doubtful cases in which the examination of the sputa for the bacilli will be of decided value in arriving at a correct diagnosis. (5.) As to prognosis, it was found that the number was in proportion to the amount and rapidity of the process of destruction. (6.) It might be said as a general rule that in the more chronic cases bacilli were fewer and, he thought, smaller. His experience convinced him of the contagiousness of the disease, of which he gave instances.

Considerable discussion followed the reading of the paper, after which Dr. Strange read a paper on "Acetonæmia," and an adjournment was made till the following day.

SECOND DAY.

The Association met at 10.30 a.m., Dr. Clark in the chair in the absence of the President, Dr. Macdonald.

The Secretary read a report by Dr. Battersby, of Port Dover, on a case of "Umbilical Hernia and the Formation of an Artificial Anus."

Dr. Mitchell gave an account of three cases of poisoning which he had recently treated. The first patient had swallowed a large dessert-spoonful of pure carbolic acid. The second patient had taken half a teacupful of Paris green. The third case was one where several persons had taken an infusion of some herb, supposed to be belladonna. The treatment was by sharp emetics and sub-cutaneous injections of morphia and of brandy, with the use of the stomach pump. In the first instance he administered olive oil and sulphate of zinc, and the patient recovered; the other two cases proved fatal.

At this stage of the proceedings Dr. Macdonald, of Hamilton, the President, entered the room, and amid applause took his seat. He explained that his absence the previous day had been caused by indisposition. He then delivered his annual address. He enumerated the advantages to be derived from the meetings of the Association, both from a social and professional point of view. Ontario being a large province, the members of the Association suffered from isolation, and the reunion brought about by the meetings of the Association tended to bring the members of the profession, who lived at a distance from one another, into closer social relations, and to aid much in removing the feeling of distrust that was supposed to exist in their ranks. The Association also was intended to fill the gap between the Dominion Association and the local organizations of the town and country. He thought that London and Kingston should be visited every year alternately with Toronto by the Association, as such a course would extend the benefits derived from their meetings over the province. He then referred to the question of the attitude to be assumed by the members of the profession towards the homœopathists in consultation. There was not that hostile feeling towards the disciples of Hahnemann in Canada that was felt in the United States, a result owing probably to the terms on which homœopathists were received by the Council of the College of Physicians and Surgeons. But, although there was no hostility, there was no change in the opinion in which the doctrines of Hahnemann were regarded by allopaths. He thought they should do nothing that would throw obstacles in the way of others giving professional aid in cases of urgency where homœopathists were in attendance. He alluded incidentally to the museum proposed to be started by the Association, and mentioned the advantages which would result from such an institution. He had no doubt that the College of Physicians and Surgeons would find the room required for such a museum if it were started. He went on to refer to the communication of the Ontario Christian Women's Temperance Association, in which they asked that the profession should abstain from prescribing alcohol as a therapeutic agent. There was a great difference of opinion as to the value of alcohol as a medicinal agent, and the profession could not, of course, be expected to give an opinion contrary to

their convictions. They all sought, however, to promote among the people habits of sobriety, and would do all in their power to aid the temperance organizations in this object

Dr. Radford, of Galt, showed a patient suffering from chorea, which he had treated without success by the ordinary method. He asked the opinion of the Association.

Dr. Harvey recommended cod-liver oil, maltine, bathing with a solution of Atlantic salt, and friction.

Dr. Zimmerman recommended circumcision if phymosis existed.

Dr. McPhedran presented a case of prurigo which he is treating successfully at present with pilocarpin.

Dr. Ryerson, of Toronto, read a paper on "Cancer of the Larynx," which will be found on another page of this issue.

Dr. Ferguson, of Toronto, read a paper on "Hip-joint Disease."

Dr. Davidson, of Toronto, described what he considered to be a case of superfœtation. The patient was delivered of a fœtus about four months old, and another of four weeks old. The catamenia never ceased during pregnancy. There were no signs of decomposition on the fœtus four weeks old.

Drs. Cameron and Oldright dissented from the opinion of Dr. Davidson.

The President, Dr. Macdonald, said that the absence of putrefaction was a very strong point in favor of Dr. Davidson's position.

Dr. Cassidy read a paper on "Enteric Fever," which he illustrated by specimens.

Dr. Oldright presented the report of the Committee on Public Health. The report drew attention to the increased public interest in the subject, and recommended that the Government should be petitioned to pass an Act making it compulsory on all municipalities to have a local board of health with a medical health officer. Also, that steps should be taken to provide for more efficient instruction in the public schools on the subject of hygiene. An advance copy on the subject of sewage disposal, issued by the Provincial Board of Health, was submitted.

With regard to a communication received from Mrs. Chisholm, President of the Ontario Women's Christian Association, Dr. Oldright regretted that the time at the disposal of the committee had been too short to return a full report. The Committee, however, felt free to state that in general the use of intoxicating liquors by healthy persons is injurious, and also that the profession believe that disease is very often due to the use of liquors, and that there is a general feeling that attempts should be made to bring about a more restricted use of alcohol.

The report was adopted with the exception of the clause on temperance, which was referred to a committee consisting of Drs. Barrett, Buchan, Workman, George Wright, and Playter, with instructions to report at the next meeting of the Association.

A resolution was also adopted embodying the recommendation of the committee respecting the establishment of municipal boards of health.

The report of the Committee on Medical Ethics was presented, but there being no time for its discussion, it was referred back to the committee with instructions to bring in a more definite report at the next meeting.

The report of the Committee on Surgery was read by Dr. Oldright, and adopted. It dealt especially with the subjects of recent wounds, the reduction of dislocations, the germ theory of disease, the physiology and pathology of the blood, antisepsis and drainage.

The report on Medicine was taken as read.

The Hon. Alex. Morris, M.P.P., who had entered the room a few moments previously, was here invited to the platform by the President, and delivered a short address, in which he referred to the noble and elevating character of the profession of medicine.

The reports on Obstetrics and on Necrology were not forthcoming. The Audit Committee reported verbally that they had examined the Treasurer's books and found them correct.

The Committee on Nominations reported, recommending the following elections for the ensuing year. The report was adopted.

President, Dr. D. Clark, Toronto; 1st Vice-President, Dr. Worthington, Clinton; 2nd Vice-President, Dr. Philp, Brantford; 3rd Vice-President, Dr. Richardson, Toronto; 4th Vice-President, Dr. McGill, Oshawa; Recording Secretary, Dr. White, Toronto; Treasurer, Dr. Graham, Toronto; Corresponding Secretaries, Dr. Graham, Brussels; Dr. McKay, Woodstock; Dr. Cameron, Toronto; Dr. Aylesworth, Collingwood.

The following were added to the Standing Committees :

Credentials, Dr. Davidson, Toronto ; Public Health, Dr. Carney, Windsor ; Legislation, Dr. Digby, Brantford ; By-laws, Dr. C. K. Clarke, Kingston ; Medical Ethics, Dr. Campbell, Seaforth ; Nominations, Dr. Buchan, Toronto.

The report on Ophthalmology and Otology was taken as read.

The President and Secretary were requested by the Association to memorialize the Medical Council on the subject of a Provincial Medical Museum, and to bring the matter before the Government.

It was decided that the next annual convention of the Association should be held at Hamilton. The meeting then adjourned *sine die* after passing the usual resolutions of thanks and voting the customary honorarium to the Secretary.

In the evening the Association held a conversazione, the Royal Academy having placed their exhibition rooms at the disposal of the Association. Between seven and eight hundred people were present. A brief address was delivered by Dr. D. Clark, the President-elect.

Interesting exhibits of pharmaceutical preparations were presented by Messrs. Parke, Davis & Co., Detroit, Mich. ; Maltine and Beef Peptonoids by Mr. Gisborne, representing Reed & Carnrick, of New York ; and fluid extracts, &c., by E. B. Shuttleworth, of Toronto. A variety of surgical instruments were also shown by Messrs. Stevens & Son, and E. A. Smith & Co., Toronto.

ONTARIO MEDICAL COUNCIL.

The regular annual meeting of the Medical Council of the College of Physicians and Surgeons of Ontario was opened in Toronto on the 12th ult., the President, Dr. Bray, of Chatham, in the chair.

The election of officers was proceeded with, with the following result :—President, Dr. Logan, Ottawa ; Vice-President, Dr. Day, Trenton ; Registrar, Dr. Pyne ; Treasurer, Dr. Aikins ; Solicitor, Dalton McCarthy, Q.C.

Drs. Burns, Day, and Edwards were appointed a committee on credentials. The committee reported as to the correctness of the certificates of Drs. Campbell and Fenwick.

The following standing committees were appointed :—

Registration—Drs. Rosebrugh, Bergin, J. W. Wright, Vernon, Fenwick, and Grant.

Rules and Regulations—Drs. Spragge, Rosebrugh, J. W. Wright, Grant, and Campbell.

Finance—Drs. Edwards, Allison, McCargow, Day, Henderson, and Douglas.

Printing—Drs. McCammon, Day, Vernon, Burritt and Campbell.

Education—Drs. Lavell, Geikie, McCammon H. H. Wright, Edwards, Burritt, Husband, Spragge, Williams, Bray, Burns, and Cranston.

Dr. Bray, the retiring President, then read his valedictory, in which he gave a *résumé* of the business that had officially come under his notice during the past year. He had granted stay of proceedings in only three cases. The first was that of a British graduate who had neglected to register while in Europe ; the second, that of a gentleman who failed in two unimportant subjects last year. The information was laid in February, and as he promised to go up in April for his examination, a stay was granted. Since that time he has passed, and is now registered. The third case was that of a Provincial Licentiate who was informed against for using the letters M. D. after his name, and as he was a regular practitioner of many years' standing, and had a perfect right to practice, a stay was granted. He stated he had been applied to in other cases, but refused to interfere. Several applications for permits to practice were refused. With regard to the cases of young men who had failed to pass on certain subjects, and who were absolutely required to work for a living, he suggested that the representative of that division in the Council should be allowed to deal with them. He also suggested that the curriculum for matriculation should be changed. He believed that so long as the Universities accepted the matriculation of a student any time before graduating, the Council should do the same, provided the four-year course had been complied with. As the New British Medical Act was both liberal and comprehensive and proposes reciprocity, he thought that the profession in Ontario, who were the pioneers in raising the standard of medical education on this continent, should agitate for a uniform bill for all the provinces whereby the standard would be the same, so that a man having passed the Coun-

cil of one province could register in another by merely paying the fee He suggested also that the examinations should be still more practical, which could best be done by having the examiners appointed for five instead of two years.

Mr. Dalton McCarthy's opinion relating to the representation of certain educational institutions in this Province in the Council was next read. It contended that the Western University of London, Ont., was entitled to a representative, and that "Albert College," "College of Regiopolis," Kingston, and the College of Ottawa were not entitled to representation.

The opinion was briefly discussed and was referred to a special committee composed of Drs. Day, Williams and Burritt.

A number of communications and petitions were read and referred to committees.

The Finance Committee reported that the Council property on the corner of Bay and Richmond streets had been valued at $14,951, and was now offered for sale.

The meeting then adjourned till ten o'clock the following morning.

June 13th, 1883.

The Council met at 10 a.m., the President in the chair.

Dr. Edwards gave notice that he would move, "That on and after June, 1884, every student who presents himself for the final examination must show himself proficient in case-taking."

Dr. H. H. Wright gave notice of a resolution making a summer session compulsory. It was referred to a committee.

Dr. Bray moved the following amendment to the Council regulations, which was considered in committee, reported, and adopted by the Council:—"The annual meeting of the Council shall take place on the second Tuesday of June of each year at Toronto, when the President, or, in his absence, the Vice-President, shall take the chair, until the Committee on Credentials shall have been appointed and reported, and another President shall have been elected."

Dr. Wright's motion for a summer course, and Dr. Edwards' resolution respecting "case-taking," were discussed and submitted to the Committee on Education. During the discussion on the latter, Dr. Geikie pointed out that in the schools in Toronto every possible effort was being made to secure the teaching spoken of. Dr. Allison advocated cautious action and thorough investigation before adopting a compulsory change of this kind.

Dr. Edwards moved, seconded by Dr. Vernon, that a public prosecutor be appointed for the Council. He referred to the difficulty of prosecuting by the district authorities, inasmuch as they could not proceed quickly enough to procure the arrest of itinerant illegal practitioners.

Dr. Bray favored the appointment of individual prosecutors in each division.

Dr. Allison favored the appointment of one chief prosecutor, with subordinates, and that all the fines go to the informant, the Council not to meet any costs.

Dr. Lavell contended that the Council was not a detective bureau. He thought that if the standard of the profession was raised as steadily as in the past there would be no need of any public prosecutors, and he opposed any such appointments. In reference to the cases of qualified medical men who allowed themselves to be bought up by quacks, he believed that steps should be taken to urge the universities to take away the degrees of such graduates as would thus disgrace their Alma Mater.

Dr. McCammon was opposed to the appointment of a public prosecutor, as until they got a clause added to their Act empowering them to annul the degrees of such registered medical men, no prosecutor would be able to stamp out quackery.

Dr. Geikie thought that perhaps some of the laws might be brought to bear on those people who were, so to say, medical peddlers, who levied blackmail on the public. He thought that outside of these people there were very few quacks in the land compared with parts of the United States.

Dr. Burns thought the Council could not be expected to act as detectives, but that the duty of the Council was to protect legitimate practitioners.

Dr. Grant thought the Government should be asked to place a special tax upon each quack advertisement inserted in the press, and this would be an effective way of putting an end to quack literature. He favoured the appointment of a prosecutor in each section, who would act under instructions from the representative of the Council.

Dr. Burritt opposed the appointment of a public prosecutor.

Dr. Day stated that in the State of Illinois the Medical Board was empowered to annul the license of doctors engaged in unprofessional business. They should take means to obtain similar powers from the Ontario Legislature.

The motion was then submitted and lost.

Dr. Burns gave notice of a motion to change the mode of electing the territorial representatives in the Council.

The Treasurer, Dr. Aikins, presented his annual report, which showed the following:—Receipts from examination fees, $3,145; registration fees, $1,642; assessments, $791; rent of hall, $25; fines on unlicensed practitioners, $255; balance in hand, June, 1882, $1,568; total, $7,426. The balance now in bank to the credit of the Council, after deducting all expenditures for the last fiscal year, is $2,163.98. About $5,000 were due from unpaid assessments. The balance in hand was not sufficient to pay for the expenses of the present session and accounts due. For some years past no payments had been made on the hall. In order to meet prospective outlay it was necessary that steps be taken to enforce the payment of all outstanding assessment fees. The report was referred to the Finance Committee, and subsequently adopted.

The Council then adjourned till ten a.m. tomorrow.

June 14, 1883.

The Council met at 10 a.m. After routine, a discussion arose on the subject of needful amendments to the Medical Act. A motion by Dr. Allison was adopted, ordering the re-appointment of last year's Legislation Committee, with instructions to consider and draft such amendments as may be considered necessary, and to report to the Council next year.

Dr. Edwards presented the report of the Finance Committee, which was adopted. The total assets of the Council are $25,481, including annual dues uncollected, $5,318, and buildings and grounds, $18.000. On the building there is a mortgage of $6,000. The expenses of the present Council are $1,300.

Dr. Rosebrugh read the report of the Registration Committee, which was adopted. Several applications for registration were refused.

Dr. Lavell presented the report of the Education Committee. Most of the petitions from students, including several for supplementary examinations, were refused. Dr. Edwards' resolution concerning clinical "case-taking" was considered, and while the committee appreciated the importance of the suggestions, they recommended no action at present. Dr. Wright's resolution anent a summer session was considered, and the committee, while fully appreciating its desirability, and the relief its establishment would afford to the excessive work of the winter courses, deemed it inadvisable to give it definite shape. The following committee was recommended to review during the recess the curriculum of study endorsed by the Council:—Drs. Fenwick, Lavell, Macdonald, Bray, Bergin, Cranston, and Logan, the travelling expenses of the committee to be paid by the Council.

During the discussion of this subject, Dr. Geikie moved that the report be amended by adding a clause to the effect that the said committee were merely suggestive, it being the fixed policy of the Council not to make any changes in the present excellent curriculum which were not imperatively called for, and that every suggested change should be well and carefully considered before being adopted. The amendment was lost.

The Board of Examiners for 1883-84 is as follows:—Anatomy, descriptive, Dr. J. Fulton, Toronto; Medicine and Pathology, Dr. A. S. Oliver, Kingston; Midwifery, Dr. B. E. Burdett, Belleville; Physiology, Dr. G. A. Tye, Chatham; Surgery, Dr. W. Canniff, Toronto; Chemistry and Toxicology, Dr. M. Barrett, Toronto; Materia Medica and Botany, Dr. W. Dickson, Pembroke; Medical Jurisprudence and Sanitary Science, Dr. W. Nichol, Brantford; Homœopathic Examiner, Dr. C. W. Clark, Aylmer; Medical and Surgical Anatomy, Dr. Eccles, London.

Dr. Day submitted the report of the Committee on Legislation, with regard to the right of certain members to sit at the Council. The Committee had received from the representatives of Albert College, Belleville, and the Ottawa University, sufficient proof of the right of those institutions to representation. Nothing was adduced concerning Regiopolis College. The report was adopted.

The following were appointed as an Executive Committee:—The President, Vice-President, and Dr. Bray.

The Registrar was ordered to address circulars to all practitioners in arrears, to the effect that unless the amount due by them be paid within three months, legal action will be taken.

After passing resolutions of condolence with the families of departed members, and of thanks to the president and officers, and also adopting an address to be presented to the Governor-General and Princess Louise, the Council adjourned.

ONTARIO BRANCH MEDICAL ASSOCIATION.

The semi-annual meeting of the North-Western Branch of the Ontario Medical Association was held in Palmerston on the 21st of February.

Dr. Dingman of Listowel reported a case of gangrene which followed tapping a hydrocele. No injection was used; patient was 53 years of age. Twenty-four hours after tapping, found him partially unconscious and apparently suffering severe pain. Temperature 101°; scrotum and penis œdematous. From this point the gangrene spread upwards as far as the left nipple, and half way down the thighs on both sides. Notwithstanding all that could be done he died four days after the operation.

Dr. Graham of Brussels presented a typical case of progressive muscular atrophy. J. W., a farmer, aged 52. Has been healthy up to present attack. Never received any injury excepting a fall from a hay-loft five years ago. Has not had typhoid fever or rheumatism; no lead poisoning; denies syphilis. The first symptoms he noticed last harvest while trying to thrust the knot under the band with his thumb in binding sheaves. His strength is gradually diminishing; has had no fever, no muscular pains; sensation perfect. Temperature of left hand low, feels cold there more readily than elsewhere. Fibrillary twitching is well marked. The muscular atrophy is quite evident in the thenar muscles and interossei. The middle fibres of the trapezius inserted into the spine of the scapula are perceptibly diminishing. Deltoid not yet affected.

Owing to the small attendance due to the snow blockade, the meeting was postponed to the 3rd of May.

Palmerston, May 3rd, 1883.

In the absence of Dr. Stewart, Dr. Yeomans of Mount Forest was called to the chair. The minutes of last meeting were read and approved.

Dr. Gun of Durham read a very interesting paper on injuries of the brain, accompanied by a report of four cases from his own practice.

Dr. Yeomans reported a severe case of fracture of the skull extending from the foramen spinosum to the auditorius externus, then upward through the squamous portion of the temporal bone, crossing the middle meningeal artery.

Dr. Cotton of Mount Forest read an extremely interesting report on three cases of equinia, which disease, fortunately, is not a very common one. Two of the patients, father and son, were inoculated by the discharges while attending a glandered mare in foaling. The third was supposed to have received the infection while sawing logs drawn by horses affected with the disease. The general symptoms were as follows: chills, vertigo, pains in the head, muscles, joints and bowels, diarrhœa, tongue furred, dry, with brown centre, sordes on teeth, bowels tender and tympanitic, discharges from the bowels frequent, black and very offensive, urine scanty, high temperature, slight delirium. They exhibited the characteristic eruption, about the size of a split pea, hard at first, then becoming pustular or vesicular with a bright inflamed margin. In one case abscesses formed throughout the body. One died comatose; none recovered.

Dr. Stewart of Palmerston reported a case of occlusion of the os at labour occurring in his practice which terminated successfully.

Dr. Graham shewed a number of microscopical specimens amongst which were diphtheritic micrococci.

It was resolved that the next meeting should be held in the same place on the first Thursday in September.

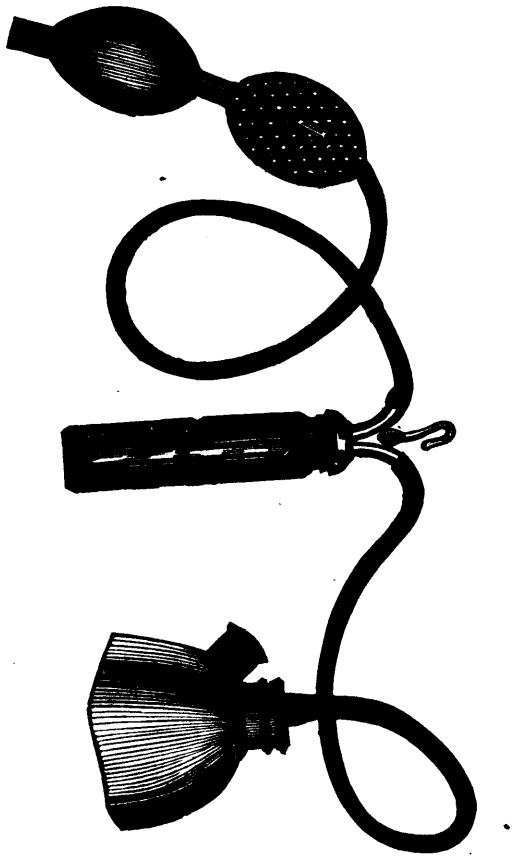
NOVA SCOTIA MEDICAL SOCIETY.

The annual meeting of the Nova Scotia Medical Society was held at Truro on the 20th ult. The opening address was delivered by the President, Dr. Slayter, of Halifax. The election of officers for the ensuing year resulted as follows:—President, Dr. J. S. Somers, Halifax; 1st Vice-President, Dr. H. McPherson, Sydney, C.B.; 2nd Vice-President, Dr. Stewart, Pictou; Secretary & Treasurer, Dr. McDonald, Londonderry. Sydney, C. B., was fixed upon as the next place of meeting.

Selected Articles.

JUNKER'S ANÆSTHETIC APPARATUS.

This apparatus, by which an anæsthetic is not only administered economically, but also in regulated dilution, being now much used both in England and elsewhere, Messrs Krohne & Sesemann, Duke-street, makers, give the following description of its construction and method of employment :— The appararus consists of three main parts : A bottle holding about two ounces, closed by an air-tight fitting top, through which two tubes are made to pass, a long one, connected with a Richardson's bellows, and a short one, connected by means of India-rubber tubing with a vulcanite face-piece. The bottle for holding the anæsthetic fluid is covered with leather, and the lower half is graduated for eight drachms. The face-piece is provided with an inspiratory and an expiratory valve.



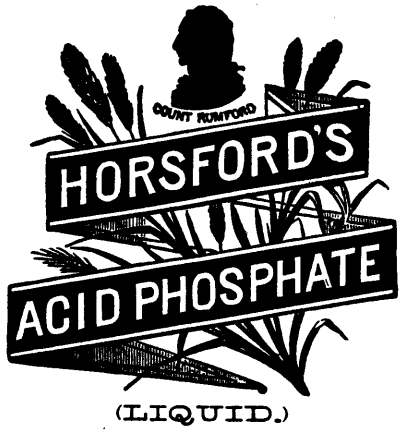
When using the apparatus, from four to six drachms of chloroform or bichloride of methylene should be poured into the bottle according to the expected duration of the operation ; it is then suspended from a button-hole in the coat of the administrator. By each compression of the bellows about 4.33 cubic centimètres of fresh air is forced through the long tube into the fluid, and escapes impregnated with the vapour in proportion to the contents of the bottle, through the short tube into the face-pipe. During the use of this apparatus, fresh air impregnated with fresh narcotic vapour is brought into the face-piece with each compression of the bellows, and if the latter be correctly timed, so as to correspond with each inspiration, the whole of the vapour is inhaled, and on each expiration the exhaled air escapes through the valve and at the edge of the face-piece, so that the patient does not inhale his own breath. The patient has not to breathe through this apparatus as is the case with most inhalers.

It will be noticed, that as the quantity of fluid in the bottle decreases, so does the amount of evaporation, thus a proportionately increasing dilution of the vapour with air is going on from the first. Taking into account that the quantity of air supplied by the bellows with each compression is but from $\frac{1}{15}$th to $\frac{1}{18}$th part of air required by an adult for one inspiration, the amount of narcotic vapour used in proportion to the quantity of air which enters the face-piece through its valve and sides, is incredibly small. Experience has proved that this small quantity is sufficient to maintain anæsthesia throughout severe and prolonged operations, the administrator having full control over the supply, and no waste of the anæsthetic, so annoying to the operator and the administrator, can occur.

The merits of this apparatus have long been recognised at the Samaritan Free Hospital. It is especially recommended by Sir Spencer Wells in his work *On Ovarian and Uterine Tumours*, page 277. For sixteen years no other apparatus has been employed at that hospital, for the long operations so frequently performed there—*British Med. Journal.*

DISLOCATION OF THE HUMERUS REDUCED BY KOCHER'S METHOD.

The following notes in the London *Lancet*, April 14th 1883, Mr. W. Chisholm, house-surgeon, University College Hospital, gives. In the *Lancet* of Nov. 4th, 1882, p. 773, attention was called to a paper on the method of reducing dislocation of the shoulder, read by M. Kocher at the meeting of the International Congress in London. Referring only to the subcoracoid form of the dislocation, M. Kocher directs that for its reduction the surgeon should sit on the left of the patient, then the elbow-joint is to be flexed at a right angle, and the joint firmly pressed against the side of the chest. Next, while the elbow is still held in contact with the body, the arm is to be slowly, gently, and steadily rotated out until firm resistance is encountered ;



(LIQUID.)

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It contains no pyrophosphate. or metaphosphate of any base whatever.

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Let the patient put eight or ten drops of Acid Phosphate into half a glass of cold water, and take a sip of it, say a few minutes before rising, or whenever the sickness or nausea is coming on.

It is equally effective in hot water, or tea without milk or sugar, and to some may thus be more palatable. In such cases use the same dilution as above. Some constitutions may need a stronger dilution, which fact experience alone can decide.

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then while this rotation is maintained the arm is to be raised forwards, and a little in, and, lastly, to be rotated in, and the hand brought towards the opposite shoulder. This plan has been tried in six of the cases which have come to University College Hospital during the last five months.

Case 1.—A muscular young adult, with left subcoracoid dislocation. An attempt was made to reduce it with the knee in the axilla, but as this caused much pain the patient was given an anæsthetic. While this was being administerd it was decided to give Kocher's method a trial The patient lying on his back, Mr. Heath flexed the elbow at a right angle, pressed it firmly against the side of the chest, the arm was then rotated outwards, and the head of the bone slipped into the glenoid cavity before the forward movement of the arm was commenced. This case came on just a day before Mr. Heath's expected visit, and was kept so that the students might see it reduced.

Case 2.—An adult female, with right subcoracoid dislocation. This was the first case attempted by this method without an anæsthetic. The patient was seated in a chair, and an attempt was made to reduce the dislocation in the manner described. This was unsuccessful, and the patient was told to lie down on a couch with a view to having an anæsthetic. While in this position and before giving the anæsthetic, another attempt was made at reduction by manipulation, the arm being more firmly pressed to the side. On rotating outwards a little grating was felt, and just as the outward movement of the arm was commenced the head of the bone slipped into the normal position. Patient experienced very little pain.

Case 3.—A young male adult with right subcoracoid dislocation. He said his arm had been "out" before. In this case reduction was effected with the greatest ease without an anæsthetic, patient being seated in a chair ; the head of the bone returning to the glenoid cavity at the commencement of the forward movement.

Case 4.—Similar to Case 3, except that there had been no previous dislocation.

Case 5.—A coal-heaver, a muscular man, with a right subglenoid dislocation. Patient was seated in a chair and reduction effected with some trouble, and only after the elbow was very firmly pressed against the side of the chest; at the commencement of the forward movement the bone slipped into its place.

Case 6.—A male adult, a muscular man, with right subcoracoid dislocation, was seen about noon. He had been drunk the previous night, and did not know how the injury was caused. In this case until an anæsthetic was given the bone could not be disengaged, and the attempt gave very much pain. When the patient was under chloroform reduction was readily effected. In this case the right hand was brought nearly to the opposite shoulder.

Out of six cases five were subcoracoid, and one subglenoid ; and though M. Kocher's paper seems only to refer to the former injury, the subglenoid dislocation was reduced by his method without an anæsthetic. Of the five subcoracoid cases three were reduced without an anæsthetic ; but in the first case Kocher's method was not tried until the patient was under chloroform. By this manipulation the margins of the rent in the capsule are relaxed, and the rent opened out, thus allowing the head of the bone to slip readily into the glenoid cavity.

JEFFERSON COLLEGE CLINICS.

CHRONIC ARTHRITIS OF KNEE.

The following clinic by Dr. R. J. Levis is taken from the *Col. and Clin. Record*, Philadelphia.

This young man, 18 years of age, about ten months ago received a severe injury about the knee by a heavy piece of timber falling across his leg. He subsequently suffered with chronic inflammation of the knee-joint, for which the usual methods of treatment have been pursued in vain.

I find here a good deal of tenderness and stiffness on motion. The limb cannot be entirely straightened. I intend to give him ether, then extend the limb, and apply the actual cautery to the sides of the joint. I know of no other remedy that will have the same effect as the cautery. These patients have generally gone through all the ordinary forms of treatment by blistering, iodine, and other counter-irritants, before they get to this stage. I am now applying the hot iron to the joint, over the condyles and below them, on the outside as well as on the inner side of the joint. It is not worth while to apply the cautery except to do so to the extent of producing complete localized destruction of the integument. I now will attempt to move this joint and break up adhesions, straightening the limb as much as possible.

I find here a good deal of contraction of the ham-string tendons, especially the bicep. This may require a future tenotomy.

To the surface cauterized with iron, I am now applying carbolic acid in concentrated form in order to prevent pain. The benumbing influence of undiluted carbolic acid is so great as to prevent all pain from burning when the effect of the anæsthetic passes off. He shall now have a wet dressing applied around the joint, and a posterior straight splint applied.

CHRONIC ABSCESS IN THE ABDOMINAL WALL.

This boy is 15 years of age ; he comes here on account of superficial enlargement in the left hypochondriac region. I find on the abdominal surface a fluctuating tumor in this position, which he says is tender upon pressure. He has no enlarged

glands behind the neck or elsewhere. This is evidently a cyst; there is fluid of some kind in this swelling. The tumor cannot be made to retire into the abdomen upon pressure, and upon coughing no impulse is communicated; on telling him to rise up without resting on his elbow— thus making the abdominal muscles tense—I find that the growth is freely movable on their surface, and there is no increase in the tension of its contents.

The question is whether it is a simple cyst or connected with the peritoneal cavity? I have just demonstrated that its tension was not increased by increasing the general intra-abdominal tension. I believe, therefore, that it is an independent growth. Using a hypodermic needle I determine its contents to be pus, which we will remove by aspiration through this needle.

TUMOR OF NECK.

This patient, 28 years of age, says he has had enlarged lymphatic glands in the neck for about five years. They are quite large immediately under the jaw on both sides, and especially on the left side of the neck, where a mass of them form quite a tumor. These are quite hard, the skin overlying them seems healthy.

I am in the habit of treating these enlarged glands with hypodermic injections of alcohol. Formerly I used tincture of iodine, but I believe that I get as much good from the alcohol alone, as from the tincture. The iodine is not a specific, but the injection merely acts as a stimulant; this is all that can be accomplished. About ten drops of undiluted alcohol are usually sufficient for one gland. First fix the tumor, and steady it, then inject the alcohol directly into the middle of it. I have seen the alcohol occasionally produce suppuration, which usually is not to be desired, although it would not be a calamity in this case. These injections can be repeated about twice a week. He had the usual internal treatment with iodine and chloride of ammonium, both of which have failed.

CYSTIC THYROID TUMOR.

This man, 60 years of age, presents a large growth over the thyroid gland. It is evidently a cyst, a hygroma, as it is called, probably an enlarged mucous bursa. It moves with the larynx. I will inject carbolic acid as before, in the treatment of hydrocele, after aspirating the cyst. I have added a little water or glycerine to the carbolic acid, for fear it may solidify in the tube and choke it up.

ANCHYLOSIS OF KNEE JOINT.

This case you saw recently; it is one we have had under consideration for some time; and it has been the subject of consultation with the staff of the hospital and Professor Gross.

This boy came before you with a very bent limb, and, moreover, it was considerably shortened. At one time the propriety of performing a partial excision of the bone had been discussed, probably with a view to producing a false joint. I do not know the history of the case; as you see, he has now bony anchylosis at the knee, which is flexed at a right angle.

There is a question here between excision of the knee joint and amputation of the thigh. Probably taking out a wedge-shaped piece of bone from the femur might give us a straighter limb. The other leg is normal, although in walking he is obliged to stoop down, in order to accommodate himself to the deformity. He has never used crutches, but walks in a stooping or squatting posture. We have explained to him the risks of the different forms of operative procedure I have named; I do not think really that there is much less risk in excision than amputation. I would favor removing a wedge-shaped piece from the front of the femur, just above the joint, but, as I have said, I do not believe that the danger is really much less than from amputation. But, after all, I think that he would have a much more useful limb after this operation, than if he had an artificial one, although it would necessarily be a little shorter than the sound limb.

NÆVUS MATERNUS.—LITTLE.

The patient I now present to you is about six months old, and has a small vascular tumor on the left side of the forehead. It is, as you see, of about the size of a hickory-nut. Its summit is of a bright-red color, while the outer margins of the tumor seem to be covered with healthy skin. On making pressure upon it with my finger, the swelling almost entirely disappears; and upon removing the pressure, it slowly assumes its former size. This tumor is what is known as a nævus. It is also known under the names of aneurism by anastomosis, or erectile tumor, or angioma. It is a disease of the capillaries. The mass of the tumor is made up of capillary vessels freely connecting with one another. The form here presented is of the cutaneous variety. Upon an examination of the abdomen of the child we find another one of nearly the same character. It does not seem to be as deeply situated, however, for the integument does not form any portion of its covering. It is flatter than the one upon the face and somewhat larger. The surface presents a whitish appearance in several places, as if cicatrization was taking place. These tumors may occur upon any part of the body. They are congenital, and are frequently called mother's marks. When first noticed they are generally very small, but gradually become larger. In a certain number of cases they seem to disappear spontaneously. The one on the abdomen of the child seems to be undergoing this process of cure,

the whitish spots on its surface being indicative of a change. The one on the forehead, however, the mother tells us, is rapidly becoming larger. I have met with a large number of examples of this disease, and I have never failed to cure the cutaneous variety by the introduction of heated needles into the base of the tumor. If the tumor be small, one operation is generally sufficient; in larger tumors several operations may be required before the cure is complete.

I will now proceed to operate upon this case. But, first, as to the needles used. It has always been my practice to employ a shoemaker's awl, which is slightly curved at the point and flattened. Such an instrument is much larger than the needles that are generally used for this purpose by surgeons. My assistant holding the child, I place the head between my knees, face upwards; in this way I have perfect control of its head, and am now ready to proceed. Another of my assistants holds the alcohol lamp at my right side, in which I heat the end of the awl to redness, and then plunge it into the tumor. The manner of introducing the awl is of importance. It should be thrust into the base of the tumor and towards the centre, not into the top. Holding it here a moment, I withdraw it and reheat it preparatory to a second introduction. There is scarcely any bleeding. This procedure is repeated until the entire circuit of the base of the tumor is completed. Please observe that I plunge the awl in at the juncture of the skin with the tumor and push it downwards and inwards. If punctures are made only in the top of the tumor, very little is gained by the operation. You should strive to destroy the vessels at its base. Having completed the circuit, I now make a few punctures in the most prominent part, over the surface of the nævus. The swelling has now become very much reduced in size. One of the punctures which I have just now made in the surface of the tumor is followed by a free flow of blood almost equal to an arterial jet. A second introduction of the needle fails to arrest the hemorrhage. Under such circumstances, you will find that the best method of arresting the bleeding will be to make firm pressure over the bleeding point with a sponge for a few minutes. This I have never known to fail in stopping it. The needle is introduced at a black heat; that is to say, although it is heated to redness in the flame of the lamp, before you reach the tumor the redness has disappeared. Although the child cried during the operation, it did not seem to be suffering very much, and now that I have completed the operation the patient has ceased crying. No special dressing is required. I generally advise, however, that the part be covered with a light compress, wet with cold water during the first night.

Two weeks later the patient was again brought to the clinic, when it was observed that a decided change for the better had taken place, the tumor having shrunk to less than one-third its former size. It was much flatter, and the redness over its surface had almost entirely disappeared, except at one or two points. Two or three additional punctures with the hot awl were made, it being introduced as before into the base of the vascular prominences rather than into their summits. It was predicted that the second operation would be all that was necessary to effect a cure, and that only a very slight cicatrix would remain. There are two other ways of heating needles, namely, by means of galvano-cautery and Paquelin's thermo-cautery. The points coming with these apparatuses, however, are larger than the awl I have used, and the apparatuses themselves are clumsier and much more expensive than the simple alcohol lamp and shoemaker's awl.—*Med. News.*

SURGICAL EXPEDIENTS IN EMERGENCIES.

At a recent meeting of the Medical Society of the State of Pennsylvania, Dr. R. J. Levis, of Philadelphia, gave an account of some ingenious expedients he had contrived in some of those surgical emergencies in which the skill and readiness of the surgeon are often severely tested. The *Medical News* describes some of these as follows:

In case of an *overdistended bladder*, where prompt relief is necessary and no catheter is at hand, he had taken a piece of bell-wire doubled upon itself so as to form a loop, which was readily passed along the urethral canal into the bladder. In a female a rye-straw might be used, its end being rounded with a little sealing-wax, or the stem of a clay-pipe, as crude substitutes for a catheter. In *phlebotomy*, when a proper lancet is not at hand, an ordinary pocket-knife will answer, provided the vein be held in position by transfixing it with a needle after applying the ordinary bandage.

For *obstinate epistaxis* requiring plugging of the nostril, a piece of sponge to which a string is fastened, is forced through the meatus to the posterior naris, small pieces of sponge are then to be threaded on this cord and pushed in succession into the passage until it is filled; when the danger of hemorrhage is over, they can be removed by reversing the process. Another good method in an emergency is to take a portion of the intestine of a chicken or other small animal, close one end and pass it through the meatus; water or air may now be forced into the portion in the nostril so as to make equable compression. If it is necessary to plug the posterior nares, a slender gum bougie, or a piece of thick catgut ligature may be passed along the floor of the nostril and brought out under the soft palate; a string can then be attached and brought out of the nose in front by

withdrawing the bougie; the sponge can then be employed in the usual manner.

In a case of *bleeding from an intercostal artery* from a homicidal wound, he had succeeded in arresting the hemorrhage by introducing the upper part of an ordinary key into the pleural cavity, then turning it at a right angle, and making pressure upon the vessel. After this had been continued for some hours the bleeding ceased.

A very efficient substitute for the *Esmarch elastic bandage* is a flannel roller cut bias. For dislodging and forcing downward a *foreign body in the œsophagus*, an ordinary carriage or riding whip, knotted sufficiently far from the end to ensure flexibility, may be used.

Good temporary *dressings for fractures* may be extemporized by tearing palm-leaf fans into strips; a more permanent fixed dressing can be made by dipping ordinary sand-paper in hot water, and applying it while soft; it adapts itself to the shape of the limb, but becomes sufficiently strong and rigid afterwards; hard dressings can also be made with starch, or eggs and flour.

In moving a patient with *fractured thigh*, the sound limb may be made into a splint by fastening the legs together. In treating fractures of the femur, complicated apparatus is not necessary; simple extension by weights is all-sufficient, the limb being kept in position by lateral supports or sand-bags. The postural method without splints is to be preferred in all fractures near to joints; fracture of clavicle is best treated by the supine position, with the head slightly elevated.

An ordinary gimlet is an efficient instrument with which to *open the mastoid cells* in case of abscess and threatening cerebral complication. The carpenter's rasp may sometimes replace the trephine in replacing fragments of bone after fracture of the skull.

A rubber tube may be used instead of a syringe in cases of *obstruction of the bowels*, the fluid being injected by hydrostatic pressure.

The substitution for belladonna of stramonium where a mydriatic is needed, and replacing carbolic acid by sulphurous acid as a disinfectant; and the employment of hot water in place of all other styptics, were also mentioned.

PRACTICAL POINTS FROM PHILADELPHIA CLINICS.

Dr. Carl Seiler removes polypi from the nasal cavities with the snare, as this causes less bleeding than the polyp-forceps, and touches the galvanocautery. This prevents the return of the growth, which nothing else will, the doctor having tried iodine, chromic acid, etc. This procedure certainly merits further trial.

Dr. Wharton recommends that superficially situated nævi be cauterized with the strong nitric acid, applied with a glass rod. The resulting slough is followed by a white cicatrix. More extensive nævi call for other treatment.

For catarrhal, or herpetic, or diphtheritic tonsilitis Prof. Pepper recommends, constitutionally absolute rest, large doses of quinine, drop doses of tincture of aconite, and liquid diet, and locally the application of the muriated tincture of iron.

Prof. Tyson often prescribes a mustard plaster prepared with molasses instead of water. For prolonged and mild counter-irritation this acts excellently, as patients often have the plaster on their backs for hours while fulfilling their daily duties. Dr. Tyson also has great faith in jaborandi and its active principle, pilocarpin, in the treatment of uræmia. He considers it *the* remedy for such cases. In Bright's disease and in diabetes the doctor prescribes an exclusive milk diet. He gives only skimmed milk.

Dr. Strawbridge poultices the external ear in the following ingenious manner: He lays the patient's head on the table and fills the external ear with as hot water as can be borne. Over the ear are applied towels soaked in very hot water, the surplus water being drained off by squeezing the soaked towels between dry ones.

For eczematous sores in children and old people Dr. Duhring recommends an ointment of five grains of iodide of lead to the drachm of vaseline.

Dr. Louis A. Duhring recommends for acne, sulphur in some form; preferably the sulphide of calcium internally, and locally the following prescription at bedtime:

℞ Sulphuret. potash, ... ʒ ss,
Sulphate zinc, ... ʒ ss,
Glycerine, ... ʒ j,
Alcohol, ... fl ʒ j,
Water, ... fl ʒ j. M.

Dr. Ellerslie Wallace describes nux vomica as the great invigorator of the sexual organs. He gives the one-half to one-grain dose of the extract of nux vomica three times a day after meals.

Dr. John Ashhurst, Jr., says it is the surgeon's rule for ligation of an artery to cut down over the pulsation of the artery where he feels it. Of course the surgeon should know the anatomy of the parts, as well as the lines for cutting as laid down in the books.

Prof. De Costa says do not aspirate pleuritic effusions as long as no urgent symptoms, such as failure of the heart and symptoms of blood-poisoning, demand it, for the liquid will generally reaccumulate, and the second time it will be purulent. Give iodide of potash and other remedies to promote absorption and to make the kidneys act. For the latter the infusion of juniper and jaborandi inter-

nally, and dry cupping over the region of the kidney will be often of benefit.

Prof. Tyson divides the treatment of acute rheumatism into three kinds to suit different types of cases. Rheumatism occurring in persons of nervous rheumatic temperament who lead a sedentary life but are otherwise well fed and clothed, should be treated by salicylic acid or the salicylate of sodium; twenty grains of the latter every four hours for the first twenty-four or forty-eight hours. Continue the medicine after convalescence is established for some time—about as many days as the disease itself lasted. Rheumatism occurring in obese persons who are free livers and who use malt liquors will be best treated by the alkaline treatment. One and a half drachms of bicarbonate of soda in lemon-juice every four hours for four days, afterward twenty grains three times a day combined with iron and quinine. Rheumatism occurring in anæmic persons who have been under-fed and overworked should be treated with the tincture of iodine. When the types shade into each other give the salicylic acid with the other treatment. The diet should consist of skimmed milk, chicken or mutton soup, beef broth, or other liquid diet. Anodynes and the old "six-weeks-abed" treatment have gone out of date.

Dr. Wm. Goodell, the world-famed gynecologist of the university, recommends:

℞ Carbolic acid, ... ʒ j,
Morphine sulphate, ... gr. x,
Boracic acid, ... ʒ ij,
Vaseline, ... ʒ ij, M.

for pruritus vulvæ, and also the patting of the parts with a sponge soaked in boiling-hot water. This is also a most excellent application for that rawness so often found between the thighs of the newly born.—*Med. Herald.*

COMPOUND COMMINUTED FRACTURE OF THE SKULL; TREPHINING.

Dr. A. D. Murray reports the following cases in the London *Lancet*, April 28th, 1883:

On October 26th, 1882, I was called to see H. G.——, a man about thirty-eight years of age, who had been thrown out of a cart. I found him suffering from a downward dislocation of the shoulder and a severe wound of the head. After reducing the dislocation I examined the head, and found that there was an extensive fracture of the parietal bone, a triangular fragment being deeply depressed and driven under the sound bone. From the depression fissures could be felt running downwards for about an inch and a half towards the eye and ear. The man had very slight symptoms of concussion and none of compression; but looking at the amount of depression I resolved to trephine without waiting for symptoms to come on. The operation was performed in the usual way. A little more than half a circle was removed from the sound bone above the apex of the triangular depressed portion, and after a corner had been removed by means of the saw the piece was easily lifted out; a clot was found under this. The middle meningeal could be seen pulsating at the lower corner, but was uninjured. Some fragments were taken away, the wound dressed with carbolic oil, and washed frequently with carbolic spray. The man made an excellent recovery, never having had a bad symptom.

I think that this case points strongly to the advisability of trephining at once in compound comminuted depressed fracture of the skull, without waiting for symptoms of compression. The operation does not add to the patient's danger, and may, in all probability, be the means of preventing serious complications. I feel sure that had the sharp point of bone remained pressing on the membrane serious irritation would have followed, and that the operation would ultimately have had to be performed under much less favourable circumstances.

PHOSPHATES IN MEDICINE AND SURGERY.—*La Tribune Médicale*, No. 764, contains a very interesting review of the use of phosphate of lime in medicine and surgery. Rachitis, osteomalacia, caries, etc., yield to a course of this remedy, to say nothing of its value in hastening the union of fractures. Twenty years ago Piorry advised its administration to pregnant women from the third month to the end of gestation. He also gave it in phthisis, etc. At that time the remedy was used empirically; to-day we know the *rationale* of its action. It is mainly to Dusart that we owe this latter knowledge. In 1869 he published his exhaustive and satisfactory experiments, which demonstrated:

1st. The presence of phosphate of lime is necessary in the process by which the albuminous material furnished by the food becomes transformed into the tissues of the body.

2nd. The vitality and animal heat in animals are in direct relation with the amount of phosphate of lime contained in their organization.

3d. In case phosphate of lime is not supplied, the tissues draw in their need upon the skeleton, which by consequence suffers, just as the adipose tissue is made to yield the hydro-carbons where these are wanting in the food.

The phosphate is not taken up in the stomach, because it is insoluble, but here is where the labors of Dusart have again come to our aid in giving us the soluble lacto-phosphate of lime.

This salt, administered to infants, causes them to increase remarkably in health and vigor. In rachitis the hospitals of Paris furnish hundreds of cases of its good effects. In one case most marked,

where death was almost impending, the child was restored completely to health by the use of Dusart's syrup of the lacto-phosphate without the administration of any other remedy. Prof. Pacquet, of Lille, as long ago as 1872, spoke of its marked benefit in all cases of malnutrition. He especially accords to it an undoubted value in the treatment of fractures, and enumerates among others a case of fracture of the anatomical neck of the humerus, recovery in thirty-two days; a fracture of the olecranon in eighteen days; two fractures of the thigh, one cured in fifty-two days, the other in fifty-five; fracture of the lower jaw in fifteen days; a compound comminuted fracture of the leg in seventy-two days. He concludes: One has only to compare a series of cases of fractures where the lacto-phosphate of lime has been used with a series in which it has not been used to note a remarkable difference in favor of the salt.—*Cin. Lancet and Clinic.*

Rheumatism as a Neurotic Disease.—In the *Medical News* Dr. Webster Smith communicates an interesting and rare example of a case of acute articular rheumatism occurring in a child two years and a half old. Commenting on the case, the editor observes that Dr. Smith very acutely says that the question of cerebro-spinal meningitis was considered in making up the diagnosis. The joint-changes which ensue in cases of meningitis have been described by Prof. Charcot and others. The late Prof. J. K. Mitchell advocated the neurotic origin of rheumatism, and his son, Dr. Weir Mitchell, has published many observations proving the dependence of joint-changes on spinal and nerve lesions. It is now, indeed, established that changes in the joints, which can not be distinguished from those of acute rheumatism, occur in cases of disease and in lesions of the spinal cord, the membranes, and the nerve-trunks. This admitted, the case of Dr. Smith may be regarded from this point of view. The joint inflammation, the hyperpyrexia, the opisthotonus, and the muscular (choreic) spasms, the whole, concluding with coma, may be regarded as due to a common factor, meningitis. Whether one or the other view be taken, the case admirably illustrates the remarkable correspondence between acute rheumatism and certain spinal affections, and goes far to prove their community of origin. This admitted, acute rheumatism becomes not merely an inflammation of the fibrous tissues, but a neurotic affection.—*Medical Times and Gazette.*

A Ready Method of Obtaining Local Anæsthesia.—Dr. Cheize, in *Jour. de Med. et de Chir. Pratique*, says among the difficulties which surgeons in this country frequently encounter, and must promptly overcome, is the paucity of surgical instruments and appliances. The want of a Richardson atomizer I had recently to supply in the following manner:

A young girl presented herself with inverted toe nails and solicited an immediate operation, *i.e.* extirpation. I imbibed with ether a piece of cotton wadding of the size of five francs, and placed it upon the big toe, and with a common hand bellows I blew on it for a few minutes, until complete evaporation had taken place. I saturated the cotton wadding a second time, and again manipulated the bellows. In less than five minutes anæsthesia was complete. I extirpated the ingrown nail, and applied to the matrix the actual cautery without the patient experiencing the least pain. I had to exhibit the extirpated nail in order to prove to her that the operation was performed. This is an anæsthetizing apparatus of the greatest simplicity, and within reach of any one. Is it new? I do not know. It is certainly very simple. Country practitioners may find it of great value.—*St. Louis Med. and Surg. Jour.*

Atropia for Ear-ache.—The *Boston Jour. of Chemistry* says that Dr. A. D. Williams recommends its use as follows:—The solution is to be simply dropped into the painful ear, and allowed to remain there from ten to fifteen minutes. Then it is made to run out by turning the head over, then being wiped with a dry rag. The solution may be warmed to prevent shock. From three to five drops should be used at a time. The strength of the solution must vary according to the age of the child. Under three years one grain to the ounce, and over ten years four grains to the ounce of water. In adults almost any strength may be used. All ages will bear a stronger solution in the ear than in the eye. The application should be repeated as often as may be necessary. Usually a few applications will stop the pain. In acute suppurative inflammation of the middle ear and acute inflammation of the external meatus, atropia will only slightly palliate the suffering, but in the recurring nocturnal ear-aches of children it is practically a specific.—*Med. and Surg. Reporter.*

Scarlatinal Inoculation.—Dr. Stickler has reported in the *Medical Record* (quoted by the *Cincin. Lancet and Clinic*) a number of vaccinations with mucus from the Schneiderian membrane of the horse affected with modified scarlatina. He vaccinated twelve patients who had never had scarlatina with the equine virus, and after all symptoms from that had subsided he injected subcutaneously some "human scarlatinal blood." The vaccinations with the equine virus were all followed with symptoms characteristic of mild scarlatina; the after injections of scarlatinal blood produced no effect whatever. From these experiments he adduces the following points:

"*First*—The safety in using subcutaneously the virus obtained from the horse.

Second—That when this virus is implanted in the human tissues, there follows a local eruption similar to that seen in mild cases of scarlatina.

Third—The system appears to be protected against the action of the human scarlatinal poison after vaccination with the equine virus."

TREATMENT OF FLOATING KIDNEY BY FIXATION.—We are informed that Dr. David Newman, of Glasgow, has performed for the first time in this country the operation of nephroraphy. The operation was performed in the following manner: The kidney was exposed by a vertical incision in the right loin, immediately external to the outer edge of the quadratus lumborum, and extending from the lowermost rib to the crest of the ilium; the capsule of the kidney was opened and stitched to the edges of the wound; and two catgut sutures were passed through the cortex of the kidney, the muscles, fascia, and skin, and secured externally by buttons. The patient suffered from severe symptoms, and was treated for several years without success; but since the operation the symptoms have entirely disappeared, and she has now almost recovered from the effects of the operation, which was performed three weeks ago.—*Lou. Medical News.*

JEQUIRITIC OPHTHALMIA.—Wecker (*Ann d'Oc.*, Nov.-Dec., 1882) has employed jequirity in a large number of cases of obstinate granular conjunctivitis, and draws the following conclusions:—1. Lotions of infusion of jequirity-seeds produce a purulent ophthalmia of a croupous nature, the intensity of which can be regulated by the number of lotions which are employed, and by the strength of the infusion employed. 2. The cornea runs no risk during the evolution of the jequiritic ophthalmia. In only a single case, in which the ophthalmia was pushed to a veritable diphtheritic aspect, was there produced a circumscribed and transient desquamation of the cornea. 3. The jequiritic ophthalmia rapidly cures the granulations, and, even if reproduced several times, it acts with much less danger and discomfort to the patient than inoculation, for it always disappears, without any treatment, by confining the patient for from eight to twelve days in a darkened room.—*New York Medical Journal.*

NEW OPERATION FOR SPINA BIFIDA.—The report of an unusually interesting operation is communicated by A. W. Mayo Robinson in the *British Medical Journal* (March 24). Being obliged to operate early in a child only six days old, the spina bifida being in the lumbar region, and the skin over the swelling being so thin as to threaten rupture, the skin was dissected off and the redundant membranes removed. The serous edges of the borders of the deep wound were brought together by silk sutures, and over the sac was placed a portion of periosteum obtained from a living rabbit. The operation was successful in closing the opening and in saving the patient, but the bony tissue had not developed from the periosteum up to the time of reporting the case. The fibrous periosteum, however, doubtless strengthened the wall, and so prevented a return of the disorder.

TREATMENT OF STYES.—Louis Fitzpatrick, L. R. C.S., in the *Lancet*, says: The local application of tincture of iodine I have found, after many trials, to exert a well-marked influence in checking the growth of the stye. This is by far preferable to nitrate of silver, which makes an unsightly mark, and often fails in its object. The early use of iodine acts as a prompt abortive. To apply it the lids should be held apart by the thumb and index finger of the left hand (or a lid retractor, if such be at hand), while the iodine is painted over the inflamed papilla with a fine camel-hair pencil. The lids should not be allowed to come in contact until the part touched is dry. A few such applications in the twenty-four hours is sufficient, and I have never seen a single instance in which, after this treatment has been resorted to, the stye continued to develop itself.

RESORCINE AS A LOCAL APPLICATION TO CHANCRES.—In the January number of the *Annales de Gynecologie* MM. Lebland and Fissiaux report six cases of soft chancre in women treated by the application of resorcine in powder or solution. The formula of the solution recommended is five grammes (75 grains) of resorcine to 20 grammes (5 oz.) of distilled water. The average duration of the six cases under this treatment was twenty-three days, whilst in five cases treated with iodoform the average duration was thirty-eight days. Resorcine is said to cause but slight pain, which usually disappears rapidly. The entire absence of odor gives this drug a great advantage over iodoform, to which indeed the authors consider it in all respects superior as a dressing for soft sores.—*British Medical Journal.*

RADICAL CURE OF INGUINAL HERNIA BY DISSECTION.—At the last meeting of the surgical section of the Academy of Medicine, Mr. William Stokes exhibited a patient whom he had operated on by this method for a strangulated inguinal hernia of the left side. The other side had been operated on in Liverpool some time since by the ordinary method, and had failed. Mr. Stokes dissected down to the pillars of the ring and stitched them and the peritoneum together with a piece of catgut. The operation was performed five months ago, and has turned out most successful. Mr. H. Gray Croly exhibited also on the same occasion a patient with inguinal hernia in which the same method was used with a similar result.—*Lancet.*

INCISION INTO AND DRAINAGE OF THE PERICARDIUM.—At the meeting of the Royal Medical and Chirurgical Society, on Tuesday evening last, Dr. Samuel West related a successful case of purulent pericarditis, treated by free incision and drainage. It is the first case which has been so treated in this country. The only other recent case on record is the one by Dr. Rosenstein, of Leiden, which was described in these pages two years ago. Dr. West's patient has fully recovered. There is no deformity of the chest, and nothing but a small scar remains to remind the patient of the narrow escape his life has had.—*Med. Times and Gazette.*

A NEW EDITION OF THE BRITISH PHARMACOPŒIA.—The General Medical Council have arranged for a new edition of the British Pharmacopœia, to be prepared under its direction by Profs. Redwood, Bentley, and Attfield, at a compensation of £800, this sum to include the cost of any experiments requiring to be made. The pharmacopœia committee recommend considerable changes in chemical nomenclature, in symbol notation, and in the method of representing the quantities of ingredients to be used in the preparation of medicines. They advise the addition of twenty-nine articles,and the omission of three.

SALICYLIC ACID IN RHEUMATISM AND TYPHOID FEVER.—In the course of a case of rheumatism in a child, related by Dr. J. P. Thomas, of Pembroke, Ky., in the *Louisville Med. News*, March 31, 1883, the author states that the following formula has proved to have so many advantages that he urges the profession to give it a trial:

℞. Acid salicylic, ... ʒ ss.
Potass. acetat., ... ʒ ij.
Syr. limonis, ... ʒ ij.
Aquæ aromatic., ... ʒ iv.

M.—The usual dose for adults in rheumatism or typhoid fever, one tablespoonful every two or three hours, largely diluted with water.—*Med. and Surg. Reporter.*

FELINE TEST FOR DEFECTIVE SEWER PIPES.—Cats have a great fondness for the odor of valerian. So an ingenious Boston woman, suspecting some defective pipes, borrowed two cats and shut them up in the suspected room; then, having purchased some oil of valerian, poured it into the highest basin in the house, and proceeded down stairs to watch the result. She was gratified to find both manifesting a preference for a certain spot in a closet near which a waste-pipe ran; and here, on further inspection, a complete separation of the pipe was discovered.

THE TREATMENT OF OBSTINATE NEURALGIA.—M. Verneuil, in a communication to the Surgical Society of Paris (*Le Prog. Med.*, No. 49, 1882), referring to the surgical treatment of obstinate neuralgia, said that all therapeutic resources should be exhausted before surgical interference was undertaken. He recalled a case which was cured by hyoscyamin, after resection of all the ends of nerves and even amputation had failed to give relief.—*Med. Record.*

IT is said of a talented (?) physician of Cincinnati that the only trouble he ever experienced in the introduction of the catheter in the female was that it was so apt to hitch against the prostate gland. He is inventing an instrument to overcome the difficulty. This is only equalled by the medical man in England who advertised a book on disease of the prostate gland in both sexes.

AN ANTIDOTE FOR PILOCARPIN. — Dr. Fronmuller, of St. Petersburg, states that the symptoms of poisoning produced by the injection of gr. ½ of hydrochlorate of pilocarpin, disappeared within two minutes after the injection of gr. ½ of hydrochlorate of homatropin, the pulse, which had previously been at 120, falling to 80. This is not an isolated case.

FOTHERGILL'S COUGH MIXTURE.—Dr. J. Milner Fothergill, of London, considers the following a most elegant and palatable cough mixture:

℞. Syr. Scillæ..... ..... ʒi
Acid. Hydrobrom. dil.....
Spts. Chloroformi *aa*..... ʒss
Aquæ..... ..... ʒj—M.

CITRIC ACID IN FROST-BITE.—Lapatin, a Russian surgeon, who has had considerable experience in the treatment of frost-bites among the troops in the last Turkish war, says that a mixture of equal parts of dilute citric acid and peppermint-water is an effectual cure for frost-bite.

TREATMENT OF STYES. — For hordeolum Dr. David Webster has used calcium sulphide, a granule (gr. $\frac{1}{10}$ each) each hour until ten have been taken, repeated daily, with marked benefit.—*Archives of Medicine*, February.

BACTERIA are best destroyed by a solution of bichloride of mercury (1 part in 10,000). This has been used successfully as an injection in gonorrhœa.

"Alcohol," said the professor, "has killed more people than yellow fever." "That is true," said the somewhat bibulous student; "but that is only because more have taken it."

DR. DRINK, the author of the surgeon's "*Vade Mecum*," died on the 15th ult., at the age of 68 years.

THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science Criticism and News.

Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Advertisements inserted on the most liberal terms. All Letters and Communications to be addressed to the "Editor Canada Lancet," Toronto.

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PRESCRIBING BY ROTE.

Dr. Lionel Beale, in his very excellent little volume "On Slight Ailments," laments the falling off among the younger generation of practitioners in the art of prescribing. "I have often heard the remark," he says, "that our predecessors knew more about the treatment of disease than we of this generation do. There is some truth in this; and I am sure that many old practitioners now living are more successful in relieving the aches and pains of their patients than some of the young ones, who may, nevertheless, have a far more intimate knowledge of the diagnosis of obscure forms of disease and of the minute pathological changes which have damaged tissues and organs." Every observant medical man must frequently have had the opportunity, either in his own case when commencing practice, or in that of his younger brethren, of verifying the correctness of Dr. Beale's remarks. Those holding positions on the teaching staffs of our medical schools will more particularly have had occasion to note this. It is not that there is any general decrease among students in abstract knowledge of the principles of therapeutics or of the action, doses and incompatibilities of medicines. But there does seem to be an inability to apply those principles to the practical treatment of disease in its varied forms.

With reference to the cause of this deterioration which Dr. Beale bewails, we would remark that it is certainly not the teaching that is at fault, for we know that the tendency of the age is to make this as thorough and as practical as possible. It is not, we believe, any failure of application on the part of the students, for we are assured that the standard of the classes is steadily rising year by year. We think Dr. Beale himself, though all unconsciously, gives us a clue to the source of the mischief. A few lines below the passage just quoted, he tells his class that "it will be well for them to takes notes of prescriptions." Now, as a matter of fact, this is the very thing that is overdone. We are very far from deprecating the practice of taking notes. Nothing tends so much to concentrate the student's attention, to arouse his interest, to form his mind and to impress important facts indelibly upon his memory, as judicious note-taking during his attendance upon didactic and clinical courses. But there are two ways of taking notes, as there are of doing everything else, and we are disposed to believe that to the practice of indiscriminately cramming a note-book with formulæ, is to be traced much of the inaptitude for extemporary prescribing that many newly graduated practitioners find such a serious stumbling-block in the path of their profession. Among a certain class of students—by no means a small one—there seems to be a race who shall amass the largest collection of prescriptions. It is the same story in the lecture-room, the dispensary and the hospital clinic. Every lecturer on medical subjects must have remarked, with more or less amusement, that in order to galvanize into life a sleepy and inattentive class, nothing is so effectual as the judicious interpolation of an occasional prescription. No sooner is the cabalistic ℞ written on the blackboard, than there is a general stirring up of the dry bones; the sleepy become alert, the inattentive interested; note-books and scraps of paper are drawn from their recesses, and down goes the formula, to be preserved intact and inviolable as the laws of the Medes and Persians "for future reference." The same thing occurs at the indoor clinic, while the dispensary prescription book is ransacked by the unfortunate victims of this *præscriptionum sacra fames.*

Now all this would be well enough did it go no further; but unfortunately the prescription collector is apt to place too much dependence upon his collection for the future treatment of his prospective patients. His collection book is his sheet anchor; without it he is lost; with it he is prepared to cope with every disease known to science

—by name. This is not as it should be. It would be as reasonable for a student to expect to become a skilled geometrician by getting up his Euclid "by heart," as to hope to become a successful practitioner by blindly relying upon stereotyped formulæ. It is destructive of all self-reliance; it is fatal to anything like an intelligent appreciation of the value of symptomatology; in means, in how many cases, material death to the patient and moral dissolution to the practitioner. The blind worshipper of the fetish of formula has his own pet prescription for every malady under the sun. He has been aptly likened to an unskilful archer with a quiverful of arrows which he does not know how to use; he draws his bow at a venture, and if the shaft chance to hit the mark, it is as much by good fortune as anything else. It matters not to him what are the conditions of the case. He prescribes for the name of the disease, not the symptoms. He is like Shakespeare's courtier in his narrow-mindedness,—

"Telling me the sovereign'st thing on earth
"Was parmaceti for an inward bruise."

Of course this state of things cannot last for ever. The young practitioner, if he possess a molecule of sense, soon perceives that if he would achieve success he must do something more than treat the mere name of the disease. But by the time he has reached this sage conclusion the question arises, how much damage has he done—to his own reputation no less than to his patients' health. How much disappointment and humiliation might he not have spared himself, had he, during his student days, devoted less time to the acquisition of prescriptional formulæ, and more to the study of the *rationale* of therapeutics, of the adaptation of certain remedies to certain conditions, apart from the mere nomenclature of disease, and of the harmonious blending of drugs into safe and efficient combinations, wherein every symptom is considered and every individual item has its *raison d'être*. We hear a good deal now-a-days about practical work in the medical schools. Its importance as a factor in professional training is now generally recognized, more especially in connection with the clinical study of disease. It is not too much to hope that its sister art, that of prescriptions and prescribing, will soon receive the recognition it deserves. The two should go hand-in-hand, intelligent recognition with intelligent treatment of the ever-varying forms of disease.

ONTARIO MEDICAL COUNCIL.

The meeting of the Ontario Medical Council, the report of which will be found in another column, was this year unusually brief, yet some important matters were under discussion, and duly considered, both in council and committee. In the election of President, the Council did an act of justice to the Homœopathic members for which they are to be commended, for so long as these gentlemen are associated in the carrying out of the act for the general good, they should not be debarred by reason of any difference of opinion as to practice, from the honors the Council has at its disposal. Dr. Logan is a worthy representative of the Homœopathic body, and we feel assured will do credit to the position to which he has been unanimously elected by his confrères. We are also very much pleased to observe the wise discretion exercised by the Council in refraining from making any radical changes in the curriculum, until they are seen to be imperative. We well remember in times past, the frequent and annoying changes in the curriculum from year to year, until the announcement was so complicated that no one understood it, and students were never sure what the next turn of the kaleidoscope might reveal. In consequence many of them gave up in despair and went abroad to seek in another way the necessary qualification to enable them to practise in Ontario. Instead of making any hastily considered changes, a committee was appointed to carefully consider the changes (if any) imperatively required, and report at the next meeting of the Council. Much as we would have liked to have had attendance upon a "summer session" made compulsory, we think the Council acted wisely in carefully considering the matter before putting any additional burden upon the students. The proposal, also, to return to the system of annual examinations, once more received its quietus, and we trust it will not again be brought forward. The division of the examinations into primary and final is found in practice to work well and is a sufficient guarantee both to the profession and the public. We trust therefore that no change in this direction will be entertained by the Council.

With reference to the regulation suggested by Dr. Edwards in regard to "case-taking," which proposes that a case in medicine and another in

surgery shall be written out in detail and sent to the examiner by candidates for the licence, we consider it too cumbersome and of little practical value. The proposed regulation is somewhat similar to that which requires all candidates for the degree of doctor of medicine to write a thesis, a requirement which is now being discontinued by most universities. All such evidences of qualification are worthless, for the simple reason that they are for the most part copied from books, and even in some cases written for the candidates by proxy, and so would it be in reference to "case-taking." A much better guarantee of experience in clinical work would be to exact from each candidate for the final examination a certificate, duly signed, of having acted as clinical clerk and surgical dresser in some general hospital for a period of not less than three months.

The subject of appointing a public prosecutor by the Council was again up for discussion, but the proposal was not entertained. The appointment of a public prosecutor, much as it would gratify many members of the college, would involve the Council in considerable trouble and entail an expense which, it is needless to say, it is not at present in a position to incur. Besides, it is useless to endeavor to purge the community of unlicensed quacks, while licensed quacks—members of the college—are permitted, from want of proper legislation, to prostitute their high calling, for filthy lucre and for the benefit of a set of impudent peddling Yankee charlatans. A committee was appointed to draft amendments to the Medical Act, and we trust a clause will be inserted which will in some measure put a stop to these disgraceful proceedings on the part of those hirelings, who are, by their mean and mercenary actions, bringing into disgrace an honorable profession.

AMERICAN MEDICAL ASSOCIATION.

The thirty-fourth annual meeting of the American Medical Association was held at Cleveland, O., on the 5th, 6th, 7th and 8th ult. The President, John L. Atlee, M.D., of Lancaster, Pa., occupied the chair. Three Canadian members of the profession, viz., Drs. Osler and Roddick, of Montreal, and Dr. Harrison, of Selkirk, were present and were invited to seats on the platform. Considerable interest was manifested with reference to the subject of the Code of Medical Ethics, especially concerning consultation with homœopaths; but few were prepared for what actually took place. We are told that it was "evident that the feeling in favor of retaining intact the time-honored code of the Association was so universal, that it was useless to discuss the subject, and the strength of this feeling was indicated by the dignified silence which was almost universally maintained with regard to it." The truth of the matter is, that every delegate, before registering, was required to sign a blank form of acknowledgment of his adhesion to the Association's code. This amply accounts for the "dignified silence"; but we believe this attempt at coercion on the part of the Association will be followed by a reaction, which will have the direct opposite effect of what was intended. We are not prepared to subscribe to the wisdom of the Association's decision on this question, for, to our mind, it savors too much of that ill-advised, petty persecution which in all cases fails to suppress the persecuted, and in many actually contributes to their ultimate success. This has, as a matter of fact, been the case with the followers of Hahnemann, who owe not a little of their progress to the ill-judged, hostile attentions of the regular school. Quiet indifference would have been by far the better policy.

In regard to the proceedings of the Association, many interesting and valuable papers were read on a variety of subjects in the various sections, and were discussed with vigor and earnestness and with a view to their practical bearing. Dr. J. H. Hollister, of Illinois, delivered the address on Medicine; Dr. J. K. Bartlett, of Wisconsin, that on Obstetrics; and Dr. W. F. Peck, of Davenport, Ia., that on Surgery. The report of the committee on the proposed journal was adopted without much discussion, the general feeling being apparently in favor, at all events, of a year's trial of the new plan. Over two thousand pledged subscriptions have been obtained, indicating an annual revenue of $12,500. Dr. N. S. Davis, of Chicago, will be the editor. Dr. Austin Flint, sr., of New York, was chosen President of the Association; and Washington was selected as the next place of meeting, on the first Tuesday in May, 1884.

ONTARIO MEDICAL ASSOCIATION.

The meeting of the above association was held in Toronto on the 6th and 7th ult. and was well attended. The very limited time, viz.: two days, was hardly sufficient to enable the association to get through with the rather large number of papers presented. The result was an undue haste in some cases, where a little more time and attention should have been bestowed. Some papers of ordinary merit occupied much longer time in reading than was intended, while others of superior merit were either postponed beyond their order of precedence, or crowded out altogether. Some of the members also who brought patients with them, received scant attention, and in one instance the case was hurried through with almost indecent haste, and, although wholly unintentional, the gentleman presenting the patient received very little consideration for his kindness. As a rule too little time was allowed for discussion, and only a few seemed desirous of availing themselves of the small opportunity offered. One or two incidents occurred which it is scarcely worth while to refer to, except to avoid a repetition of them at some future meeting. We allude to the absence of the usual courtesy shown to the retiring president and ex-president, and in this case we might almost say, the founders of the association, in not inviting them to seats on the platform, or nominating either of them to the chair in the absence of the president. Of course we cannot but think, nay we feel assured, that this was purely an oversight; but it was none the less chilling. When it was announced that the association had decided to meet next year in Hamilton, some one remarked that he thought it should go east and learn a little of that *suaviter in modo* which is so characteristic of our confrères in the sister province of Quebec.

It was a source of regret to all that the president (Dr. Macdonald, of Hamilton) was prevented through illness from presiding during the first day of the meeting, and on the afternoon of the second day he was obliged to leave the chair before the close of the meeting, in order to take the train for Quebec, where he sailed for a holiday trip to Europe. He carries with him the best wishes of the Association for his future welfare and happiness.

INSTANTANEOUS LIGHT.—The *Boston Transcript* of Dec. 30, describes a unique apparatus manufactured by the Portable Electric Light Co., 22 Water Street, Boston. It occupies the space of only five square inches and weighs but five pounds, and can be carried with ease. The light, or more properly lighter, requires no extra power, wires or connections, and is so constructed that any part can be replaced at small cost. The chemicals are placed in a glass retort; a carbon and zinc apparatus, with a spiral platinum attachment, is then adjusted so as to form a battery, and the light is ready. The pressure on a little knob produces an electric current by which the spiral of platinum is heated to incandescence. The usefulness of the apparatus and the low price ($5) will no doubt result in its general adoption. Some of the prominent business men of the State are identified with this enterprise. In addition to its use as a lighter the apparatus can also be used in connection with a burglar alarm and galvanic battery.

RHEUMATIC ENDOCARDITIS. — Dr. Maclagan complains in the *British Medical Journal* that his treatment of this disease by moderately large and frequently repeated doses of salicin has not received a fair trial, and that therefore those who denounce his method as a failure do so unjustly. He insists that the alkaloid—not the salicylate—should be given in doses of from 20 to 40 grains every hour for six hours, or until pain is relieved (which it generally is within that time), and that the same dose should then be given every hour till the pain is gone and the temperature falls to the normal, which usually happens within 24 hours. He gives the preference to salicin, not because he regards it as superior to the salicylate of soda as an anti-rheumatic, but because it may be given in large and frequent doses without causing such disturbance of the system as not unfrequently follows the use of the salicylate and necessitates its suspension.

ENLARGED BRONCHIAL GLANDS.—Prof. Wm. Pepper presented a case at one of his clinics, at the University Hospital, of enlargement of the lymphatic glands surrounding the right bronchus. The symptoms were dullness on percussion, diminished bronchial respiratory murmur on auscultation, pain over the region when the patient was in the recumbent posture, and a scrofulous diathesis. Heart sounds were normal, and the lungs

were healthy. Prof. Pepper prescribed blisters on the back over the seat of the trouble, and the following prescription to be taken internally :

R. Hydrarg perchlor ....gr. j ;
Chlor. ferri .....gr. ij;
Glycerini..... ʒ vj.

Sig.—A teaspoonful diluted with water three times a day after meals.

PERSISTENT HICCOUGH. — The following are some of the remedies recommended by correspondents in a recent number of the *Lancet* for the relief of singultus: Hypodermic injection of morphia ; laudanum and chloroform rubbed in along the course of the phrenic nerve ; spinal ice-bag ; hot compresses to the spine ; ten minims of tincture of opium every four hours ; hyoscyamine, arseniate of strychnine *aa* $\frac{1}{120}$ gr , bromhydrate of cicutine $\frac{1}{60}$ gr. every half hour until relieved ; ether sulph., vin. ipecac., tr. digitalis, *aa* ʒss., magnesia sulph. ʒij., chloroform water to six ounces—two tablespoonfuls every four hours ; infusion of mustard seed ; inhalation of chloroform, ether, or amyl nitrite.

BRITISH MEDICAL ASSOCIATION.—The fifty-first annual meeting of the British Medical Association is to be held in Liverpool on July 31st and three following days, under the presidency of Dr. A. T. H. Waters. The address in Surgery will be delivered by Reginald Harrison, F.R.C.S. ; and the address in Pathology by Dr. C. Creighton.

The general secretary, in the *Brit. Med. Jour.* of May 26, gives the following as the strength of the Association :—30 branches, with a membership of 6,275 and an unattached membership of 3,141, including 199 foreign and colonial members, giving a grand total of 7,416 members. This constitutes the most widely diffused and powerful medical organization in the world.

REMOVALS.—Dr. Sharp, of Woodstock, N. B., has removed to Minneapolis, Minn. The following resolution respecting his removal was passed by the Carleton Medical Association :

Resolved,—That the President and members of the Carleton County Medical Society have heard with much regret of the intended removal of Dr. Sharp from Woodstock, and desire to express to him the high esteem which they have always felt for him, both as a man, a fellow practitioner and a member of this society. Wishing him and his family a hearty God's speed, they would fain hope that wherever in future his lot may be cast, his skill as a physician, and his character as a gentleman, may meet with that full appreciation which they deserve, and which they always have met with in this community.

Dr. Sprague, of Hartland, has removed to Woodstock, N.B. Dr. Rollins, of Crediton, has removed to Exeter, Ont., and Dr. Nasmith from Dashwood to Crediton.

WEATHER AND SKIN DISEASE.—Dr. Stelwagon, of Philadelphia, in an analysis of 2,000 consecutive cases of skin disease, of which a detailed report appears in the *Philad. Med. Times*, points out that skin diseases are much commonest in the spring season—March, April and May, the preponderance being in the order named. He says the explanation of this may be found in the fact that at this season of the year, especially during March and April, the weather is apt to be damp and windy, with sudden changes of temperature. He thinks, moreover, that the skin, having been subjected to the prolonged cold of winter, is weakened, and therefore more susceptible to disease.

CANADIANS ABROAD.—Drs. J. A. Hunter and E. G. Knill, Ontario ; and T. Bairston, Halifax, have passed their final examinations and been admitted members (double qualification) of the Royal College of Physicians and Surgeons, Edin., and Dr. C. A. S. Gordon has passed the primary in the same institution.

Drs. Reuben Levi (McGill), and H. Mickle (Toronto), have passed the Royal College of Surgeons, Eng., and received the diploma, and Dr. R. J. Bliss Howard (McGill), has passed the primary examination for the Fellowship of the Royal College of Surgeons, Eng.

David Tullock, M.B.,C.M., of Winnipeg, Man., has received the degree of M.D. from the University of Aberdeen.

POISONING BY CHLORATE OF POTASH. — An assistant-surgeon, U.S.A., writes to the *Med. News* that he has repeatedly observed injurious effects resulting from the excessive use of chlorate of potash, more especially in cases of diphtheria. In one instance, in which a fatal termination took place, the patient seemed to be gaining rapidly until the stomach gave out, and in spite of every effort to control the irritability, vomiting persisted until death, which occurred 26 hours after this symptom set in. He believes the drug destroyed

the tone of the stomach and poisoned the whole system of the patient.

CRESCIT EUNDO.—The British Pharmacopœia Committee recommend the addition to the promised new issue of 29 articles and the omission of three. The German committee, on the other hand, recommend the excision from their armamentarium of a huge catalogue of preparations and the adoption of a comparatively small number of new remedies. One would have thought that this was the kind of treatment best adapted to our Pharmacopœia. If we go on at the present rate there is great danger of its becoming as unwieldy as the German volume; as it is, there are, we might almost say, scores of preparations in its pages which are not used once in a lifetime.

DEATH FROM MALE FERN.—A case of poisoning from an overdose of the ethereal extract of male fern recently occurred in the practice of Dr. Coghill, of Ceylon. The quantity given was *one ounce and a half*—half to be taken at bed time and the other half the following morning. Purging, vomiting and cramps came on, followed by symptoms of collapse, and the patient died 12 hours after taking the second dose. Dr. Coghill was misled by an error in "Naphey's Medical Therapeutics," where *ounce* is printed instead of *drachm* as the dose of this remedy.

A PLEASANT BEVERAGE.—Acidulated drinks are refreshing, especially in warm weather, but the constant use of lemons or limejuice is apt to interfere with the regular action of the bowels. Horsford's Acid Phosphate, with water and sugar, makes a delicious beverage, which allays the thirst, aids digestion and benefits the whole system. It also relieves the exhaustion following excessive mental or physical labor. Many prominent physicians have used it in their practice, and give it their unqualified approval.

THE ANTI-VACCINATION MOVEMENT.—The anti-vaccinationists do not seem to be making much progress in England, if one may be allowed to judge by their latest "moral victory." On the 19th ult., a motion by Mr. Taylor, member for Leicester, against compulsory vaccination, was defeated in the House of Commons by a vote of 286 to 16. The anti-vaccinationists, however, will probably find consolation in the fact that the citizens of Basle, Switzerland, have voted by about five to one in favor of the abolition of compulsory vaccination.

MEDICAL COLLEGE FOR WOMEN.—Our respected contemporary the *Canada Medical and Surgical Journal*, in commenting on our remarks anent the woman's college, falls into an error in stating that it "is controlled by members of the faculty of the Trinity School of Medicine." For the information of our contemporary and others, we would say that not a single member of the Trinity staff has any connection with the female medical college.

MEDICAL EDUCATION FOR WOMEN.—It is announced that the Kingston Female Medical School has secured guaranteed subscriptions amounting to $1200 per annum for five years, and that only $300 more is wanted to complete the sum required. What about the Toronto Female School? McGill College, Montreal, is about to open its classes to women, so that female medical students in Canada will be amply provided with facilities for pursuing their studies.

INJECTION BROU FOR GONORRHŒA.—The following is the composition of injection Brou, a well-known proprietary medicine for the treatment of gonorrhœa:

Sulphate of zinc	100	parts.
Acetate of lead	200	"
Tinc. catechu	400	"
Wine of opium	400	"
Water	19.000	"

LEMONADE IRON.—The following will be found a most pleasant mode of administering iron to fastidious patients. The credit of it is due to Dr. Goodell, of Philadelphia:

R. Tr. Ferri Chlor	℥i.	
Acid Phosph. dil	℥vi.	
Spts. Limonis	℥i.	
Syrup ad	℥vi.—M.	

Sig.—A dessertspoonful in water after meals.

INVERSION OF THE UTERUS.—Dr. Clifton E. Wing, of Boston, read an interesting paper (*Boston Med. & Surg. Journal*) before a meeting of the Suffolk District Medical Society, on the treatment of Inversion of the Uterus. He recommends continued gentle pressure properly applied to the in-

verted organ. This is to be accomplished by some form of vaginal stem repositor held in place, and the pressure kept up by elastic bandages.

MONTREAL HOMŒOPATHIC MEDICAL COLLEGE.—The following are the names of the Faculty of the newly organized Homœopathic Medical College: Dr. Wanless, *President*, Medicine; Dr. Muller, *Registrar*, Obstetrics; Dr. Nichol, Materia Medica and Medical Jurisprudence; Dr. McLaren, Physiology; Dr. J. H. Fulton, Surgery.

APPOINTMENTS.—Dr. Fenwick, of London, has been appointed the representative of the Western University in the Ontario Medical Council, not Dr. Arnott, as stated in our last issue.

Dr. W. Stephen has been appointed physician to the Montreal Dispensary.

George W. Nelson, M.D. (Bishop's College Prizeman), Marbleton, Que., brother of Wolfred Nelson, M.D., of Panama, has been appointed Resident Surgeon of the Universal Interoceanic Canal Co.'s Hospital, Panama.

Dr. Augustus Jukes, of Regina, has been appointed Registrar of the districts of Touchwood, Regina and Souris, N.W.T.

Dr. T. A. Rodger, of Montreal, has been appointed surgeon to the Grand Trunk Railway, *vice* Dr. Scott deceased. This appointment is one we feel assured will give satisfaction both to the profession and the employés of the Company.

Prof. Robert Bartholow has been elected Dean of Jefferson Medical College, *vice* Prof. Elderslie Wallace, resigned in consequence of ill-health.

Dr. J. Corlis of St. Thomas, Ont., has been appointed Assistant Surgeon to the "Elgin" Battalion.

Dr. A. McDonald has been appointed on the acting staff of the Toronto General Hospital.

VICTORIA AND LAVAL.—The supporters of Victoria Medical School, Montreal—which is making a brave stand against the efforts of Laval University, backed by the Pope, to suppress it—evidently believe that Heaven helps those who help themselves. A member of the faculty, who modestly withholds his name, has contributed ten thousand dollars towards carrying on the fight.

ARCADES AMBO.—The *Medical Age* says: "We have a physician (?) right here in Detroit who avers that angina pectoris is an excellent remedy in consumption." He must be a brother of the Toronto reporter who made a member of the Ontario Medical Association say that phymosis was an excellent remedy for chorea.

AT a recent sale at auction of old government medical supplies, at St. Louis, amongst other things one man bought 17,308 pills for thirty-eight cents. A local paper says: "The books and instruments sold had been used before, but the pills were entirely new."

SUMMER SESSIONS.—The summer sessions inaugurated this year at the two medical schools in this city have been very successful. Sixty-two students are attending the clinical instruction at the Hospital.

F.R.C.S.—Dr. Robert Barnes has been elected a Fellow of the Royal College of Surgeons, Eng., his diploma of membership bearing date May 8, 1862.

PARLIAMENTARY.—We are glad to observe that our respected and worthy confrère Dr. Gaboury, of St. Martin, has been elected member of the Local Legislature for Laval Co., Que.

THE Massachusetts Medical Society has declined, by a vote of 62 to 58, to admit women to membership.

Books and Pamphlets.

THE PRACTITIONER'S READY REFERENCE BOOK. A Handy Guide in Office and Bedside Practice. By Richard J. Dunglison, A.M., M.D. Third edition, thoroughly revised and enlarged. Philadelphia: P. Blakiston, Son & Co. Toronto: Willing & Williamson.

The fact that this work has passed through three editions in the comparatively brief space of six years would argue for it a wide and steadily maintained popularity. That it can be accepted as a criterion of the intrinsic value of the volume is more open to question. Taking into consideration that nearly one-fourth of the book is devoted to such points as dosage, incompatibles, prescriptions, and a bare synopsis of the treatment of diseases, the inference is permissible that on these subjects,

which every practitioner is supposed to have at his fingers' ends, Dr. Dunglison's readers and patrons are somewhat weak-kneed. For this, however, the author can in no wise be held responsible; his business is to grasp the condition of the market, and to cater to the existing demand; and, accepting as a fact the inferential view just propounded, he has done so successfully. Within the limits of some five hundred pages he has collected a mass of facts, figures and hints relating to every branch of the physician's and surgeon's art, and which, owing to their being widely scattered through various professional treatises, are not always easy of access to the busy practitioner. To the younger members of the profession, especially those who are just embarking in practice, the book is likely to be particularly serviceable; while older men, who have grown somewhat rusty in the minutiæ of the teaching of the schools, will frequently find a consultation of its pages beneficial. We are inclined to think that somewhat more than its share of space has been assigned to materia medica, while other and equally important subjects have not received the full recognition they deserve. This, however, is easily remedied, and as each successive edition of the work has contained numerous additions, it will doubtless be attended to in the future. The value of the section on "Selected Prescriptions" would be materially enhanced were the source from which each formula was drawn appended thereto. Among the more valuable features of the work, to our mind, are the tables of the solubility of drugs in various menstrua, doses for hypodermic and other injections, for atomized fluids for inhalation, gargles, collyria, suppositories and enemata, many of which are not to be found in the pharmacopœias; also the hints for the use of galvanic batteries, and the selection and application of trusses— simple things in themselves, but which it is not every medical student's fortune to become familiar with during his apprenticeship. The dietetic preparations for the sick will also be found extremely valuable. The section on "How to prepare stained sections of animal tissues" (read before the Quekett Microscopical Club in 1879) seems to be somewhat out of place in a work of this kind; moreover the pathologist who endeavors to keep pace with the times will be apt to find the directions it gives somewhat old-fashioned. Upon the whole, however, the author has conscientiously carried out the object he had in view, and has succeeded in producing a work of much value to the younger members of the profession.

A Manual of Auscultation and Percussion; embracing the Physical Diagnosis of Diseases of the Lungs and Heart, and of Thoracic Aneurism, by Austin Flint, M.D., Professor of the Principles and Practice of Medicine and of Clinical Medicine in the Bellevue Hospital Medical College, etc. Third edition, revised. Philadelphia: Henry C. Lea's Son & Co., 1883.

We heartily welcome the third edition of the work of this well-known teacher and writer. The book requires no comment at our hands, a mere mention being all that is necessary. It will be found without a rival on the subject upon which it treats.

On Certain Parasites in the Blood of the Frog. By Wm. Osler, M.D., M.R.C.P., Lond., McGill College, Montreal.

On Canadian Fresh-Water Polyzoa. By the same author.

Both the above are reprinted from the *Canadian Naturalist.*

Births, Marriages and Deaths.

On the 6th ult., Constantine O'Gorman, M.D., of Hastings, to Eleanor, second daughter of A. McLean, Esq., of Walkerton, Ont.

On the 14th ult., Frederick LeM. Grasett, M.D., F.R.C.S. Edin., of Toronto, to Jane Stewart, second daughter of A. Thornton Todd, Esq.

On the 21st ult., G. H. Cowan, M.B., M.R.C.S. Eng., of Napanee, to Ida Alberta, eldest daughter of the late John Percy, Esq., Ernestown, Ont.

On the 20th of May, Dr. J. A. Sivewright, of New Westminster, B. C., aged 33 years.

On the 4th ult., Wm. Ruddick, M.D., of St. Martins, N. B., in the 67th year of his age.

At Quebec, on the 19th ult., Dr. E. Rosseau, aged 76 years.

*** *The charge for notices of Births, Marriages and Deaths is Fifty Cents, which should be forwarded in postage stamps with the communication.*

NEW PRINCIPLE FOR THE ASSIMILATION OF FAT

HYDROLEINE "HYDRATED OIL."

"HYDROLEINE" may be described as partially digested oil, which will nourish and produce increase in weight, in those cases where oils or fats, not so treated, are difficult or impossible to digest. In CONSUMPTION and other WASTING DISEASES, the most prominent symptom is *emaciation*, of which the first is the starvation of the fatty tissues of the body, including the brain and nerves. This tendency to emaciation and loss of weight is arrested by the regular use of HYDROLEINE. The ordinary so-called emulsions of Cod Liver Oil and other fats, *whether pancreatised or not*, merely remain in the form of a coarse mechanical mixture for a short time after agitation. The digestion of oil, having in no sense been artificially produced, still devolves upon those functional powers, the deficiency of which is the most prominent symptoms in these cases.

"A great misconception as to the real characteristics of a true pancreatic emulsion has been entertained by many, and but few appear to have studied the different aspects presented by such an emulsion as is produced on fat by the energetic action of pure soluble pancreatin, as contrasted with the coarse mechanical mixtures of oil or fat and water, which are commonly supposed to represent this function of fermentative digestion.

Some seem to think that if a bottle of oil is shaken up with the compounds sold as the active principle of the pancreas, and a yellowish cloud is diffused for a time through the oil, an emulsion has been obtained. So it has, but not the true pancreatic emulsion, which forms an integral portion of the process by which fats are digested and assimilated. From the unvarying result of many hundred trials with the pure, active principles of healthy pancreatic fluid, taken at the time of digestion, I am perfectly convinced that no valuable result has been attained, unless the emulsion formed is as highly refractive of light as milk. The color may vary, according to the oil or fat used, from a far whiter fluid than the densest milk to the opacity and color of Devonshire cream, but unless at least the equivalent of the density of the best milk is produced in oil, when a third of water is held in suspension, no real pancreatic emulsion has been formed.

The mere mechanical mixture formed by common pancreatin is rarely better or more persistent than may be produced by rubbing up oil or fat with a solution of mucilage, or by a warm application of dissolved gelatin, shaken with oil until it becomes cold.

The first essential towards the digestion of fats or oils in the human body is that it shall assume the state of the very finest and most permanent emulsion, and this is only known to be attained when the oil and water is perfectly opaque, from the minuteness of the globules. This is the first function of the pancreatic emulsifying principle, and by this alone can we be certain that it possesses its proper fermentative activity."—*Prof. Bartlett's Treatise.*

(HYDRATED OIL)

HYDROLEINE

(WATER AND OIL.)

The efficacy of this Preparation is **NOT CONFINED** to cases of **CONSUMPTION**, as from its valuable tonic effect on the nervous system, in addition to its special stimulating action on the organs concerned in the production of Fat in the body, *it causes a rapid increase in weight in persons of naturally thin habit, who do not present any evidence of disease.*

The principles upon which this discovery is based have been described in a treatise on "THE DIGESTION AND ASSIMILATION OF FATS IN THE HUMAN BODY," by H. C. BARTLETT, PH. D., F.C. S., and the experiments which were made, together with cases illustrating the effect of Hydrated Oil in practice, are concisely stated in a treatise on "CONSUMPTION AND WASTING DISEASES," by G. OVEREND DREWRY, M.D., of London.

In these treatises, the Chemistry and Physiology of the Digestion of Fats and Oils is made clear, not only by the description of a large number of experiments scientifically conducted, but by cases in which the deductions are most fully borne out by the results.

Copies of these valuable works will be sent free on application.

FORMULA OF HYDROLEINE.

Each dose of two teaspoonsful, equal to 120 *drops, contains*:

Pure Oil	80 *m* **(drops.)**
Distilled Water	35 "
Soluble Pancreatin	5 **grains.**
Soda	$\frac{1}{3}$ "
Boric Acid	$\frac{1}{4}$ "
Hyocholic Acid	1-20 "

DOSE.—Two teaspoonsful alone, or mixed with twice the quality of soft water, to be taken thrice daily with meals.

Unlike the ordinary preparation of Cod-Liver Oil, it produces no unpleasant eructation or sense of nausea, and should be taken in such very much smaller doses, according to the directions, as will insure its complete assimilation; this, at the same time, renders its use economical in the highest degree.

Upon application from any of the Medical Faculty, I will be pleased to forward samples, which will substantiate the claims made for Maltopepsyn, and I hope for your assistance in this my endeavour to introduce a good preparation at a low price.

FOR CONSUMPTION AND WASTING DISEASES.

HYDROLEINE (HYDRATED OIL)

FOR DYSPEPSIA, INDIGESTION, ETC.,

MALTOPEPSYN.

Having for the past three years published the names of most of the leading physicians of Canada endorsing both these remedies, I will therefore now only give the names of a few of the profession, and will add the opinions of some of the leading Druggists throughout the Dominion.

Jas. H. Richardson, M. D.,	Toronto.	John, Redfield, M.D.,	Montreal.
J. Algernon Temple, M. D.,	"	D. C. MacCallum, M.D.,	"
J. H. McCollum, M.D.,	"	F. G. Roddick, M.D.,	"
John E. Kennedy, M.D.,	"	Geo. Ross, M.D.,	"
O. S. Winstanley, M.D.,	"	John T. Finnie, M.D.,	"
J. E. Graham, M.D.,	"	Gaspard Archambault, M.D.,	"
J. H. Burns, M.D.,	"	W. B. Burland, M.D.,	"
Chas. Wm. Covernton, M.D.,	"	Casey A. Wood, M.D.,	"
		A. Lapthorn Smith, M.D.,	"

FROM LEADING CHEMISTS AND DRUGGISTS.

144 St. Lawrence Main St., Montreal, Nov. 18, 1880.

I beg to say that Hydroleine is increasing in favor with the medical profession. It digests easily and in most cases rapidly, and brings up the weight of the patient. To prove which, several physicians have weighed their patients before beginning the remedy. My sales this month are larger than ever.

HENRY R. GRAY, Chemist.

Toronto, Aug. 15, 1881.

With reference to your Maltopepsyn, I would say I have never sold any preparation of the kind which seemed to give such universal satisfaction both to physicians and patients.

The increasing sales with the testimony of numbers who have obtained marked benefit from its use, show that Hydroleine is a great success.

H. J. ROSE, Pharmacist.

Toronto, July 20, 1881.

We have much pleasure in informing you that the sale for Hydroleine and Maltopepsyn is increasing greatly, both over counter and in dispensing. Many people who cannot take Cod Liver Oil take the Hydroleine with great benefit.

E. HOOPER & Co., Chemists and Druggists.

Montreal, Aug. 15, 1881.

We have very favorable news in reference to Hydroleine and Maltopepsyn. Their sale is increasing, and we have heard through medical men who have prescribed them that they both give entire satisfaction.

LAVIOLETTE & NELSON, Pharmacists.

Montreal, Aug. 15, 1881.

I have much pleasure in saying that numbers of my customers express themselves highly satisfied with the action of both Hydroleine and Maltopepsyn, and in consequence I find the sales increasing.

J. A. HARTE, Chemist and Druggist.

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444 Queen St. West, Toronto, March 4, 1882.

I have much pleasure in informing you that the sale of Hydroleine and Maltopepsyn is rapidly increasing, and the very best of results invariably follow their use. Leading medical men are ordering them freely, which fact is sufficient guarantee of their being reliable preparations.

HARRY SHERRIS.

171 KING ST. EAST, TORONTO, FEBRUARY 3, 1882.

I feel it a duty to the public and yourself to communicate to you the very satisfactory results affected by your Maltopepsyn.

JOSEPH DAVIDS & CO.

---

382 & 630 QUEEN ST., 324 SPADINA AVE., TORONTO, FEB., 1882.

I have been selling your Hydroleine and Maltopepsyn for some time past, and find it gives universal satisfaction.

JOSIAH GREEN.

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243 YONGE ST., TORONTO, 1882.

I have sold Hydroleine and Maltopepsyn since their introduction, and must say that they have given entire satisfaction.

CHAS. W. HOWARTH.

BELLEVILLE, FEBRUARY, 1882.

We have sold both remedies, and find them spoken of very favorably by both the Medical Profession and the Public.

We can safely recommend them to parties needing such remedies.

L. W. YEOMANS & CO.

BELLEVILLE, ONT., FEBRUARY, 1882.

In recommending Hydroleine and Maltopepsyn, we endorse the opinions of many of our customers who have used both.

JAS. CLARKE & CO.

BELLEVILLE, FEBRUARY, 1882.

I believe Hydroleine gives general satisfaction. I have also received very good reports from the use of Maltopepsyn in cases where other preparations have failed.

A. L. GEEN.

BELLEVILLE, ONT., FEBRUARY 7, 1882.

I have much pleasure in recommending your preparations of Maltopepsyn and Hydroleine, as they have given entire satisfaction wherever they have been used.

R. TEMPLETON.

BELLEVILLE, FEBRUARY 8, 1882.

I have much pleasure in assuring you of the general usefulness of your Hdyroleine, and the confidence bestowed upon it by those who have used it. One customer says, respecting his child troubled with Chronic Bronchitis, "Nothing answers him so well; he thrives upon it."

W. R. CARMICHAEL.

BROCKVILLE, ONT., FEB. 13, 1882.

We have much pleasure in stating that for the past two years we have sold Hydroleine. It has given satisfaction, as the sales of it have been considerable, and we have had no complaints.

ALLAN, TURNER & CO.

LONDON, ONT., NOV. 24, 1881.

I have much pleasure in informing you that the sale for Hydroleine and Maltopepsyn is increasing greatly, both over the counter and in dispensing. Many people who cannot take the Cod Liver Oil take Hydroleine with great benefit.

W. T. STRONG.

OWEN SOUND, JAN. 6, 1882.

The sale of your preparations, Hydroleine and Maltopepsyn, has been very large, giving satisfaction wherever used.

ROBERT WIGHTMAN.

WINGHAM, ONT., JAN. 11, 1882.

I have used Hydroleine and Maltopepsyn for over a year, and have the satisfaction of knowing that I can safely and confidently recommend them to my customers.

W. T. BRAY.

NEW REMEDY FOR TEETHING INFANTS

And Adults Suffering from Nervousness, Headache, Etc.

MORSE'S

GLYCEROLE OF CELERY COMPOUND.

EACH FLUID DRACHM CONTAINS:

CELERY SEED - - -	4 Grains.
CATNIP HERB - - - -	5 Grains.
CHAMOMILE - - -	2 Grains.

Dose for Teething Infants, from 2 to 60 drops, according to age.
For Adults, from 1 to 2 teaspoonsful.

Celery Compound is a *safe* and pleasant substitute for opium and other powerful drugs, as has been proven by many physicians, and also at the Infant's Home. See following letter:—

INFANT'S HOME AND INFIRMARY.

HAZEN MORSE, ESQ. TORONTO, 29TH DECEMBER, 1882.

DEAR SIR,—I must thank you for the bottles of Celery Compound. I have used it especially with the teething infants, and have found it a certain remedy for feverishness and every form of indigestion, and for the weak and sickly ones it was invaluable as a tonic, and I shall have the greatest pleasure in recommending its use to everyone. Wishing you every success, I beg to remain, yours very respectfully,

M. WHITE, Head Nurse.

It is not necessary to speak of the advantages obtained by substituting Celery Compound for opium, as they will be at once apparent to every physician. I would call attention to the following notice, taken from the Toronto *Evening News*, March 7, 1883:—

THE DEADLY SOOTHING SYRUP.

The Drugs With Which Many Little Babies Are Poisoned.

Cincinnati Enquirer.

The recent death in St. Louis from the injudicious administration of a certain soothing syrup to two infants (twins) has aroused attention to the danger attending the use of opiates by mothers and nurses to quiet young babies. In this case the medicine was given every day for a week, according to the testimony of one witness. The children, it is supposed, became saturated with the opiate. R. Harger, a St. Louis chemist, said there was no opium in the sample bottle of soothing syrup furnished him, but that an ordinary bottle of the same stuff bought by him he found four grains of morphine to the ounce. The stuff is the more dangerous that those using it are not careful to shake the bottle, and the morphine floats on top. Another comes from the fact that the appetite for opium grows rapidly, and the dose which satisfied the child to-day is not enough for to-morrow, and it must be increased. If the stuff is in the house it is difficult to prevent nurses from using it surreptitiously. A careless person can easily make a mistake through inattention, and not be aware that an overdose has been taken until it is too late.

"There are cases," said Dr. T. C. Minor, "of poisoning from the use of soothing syrup happening occasionly in this city. In the returns to the health board there is a blank for 'immediate cause of death,' and another for 'remote cause of death.' I remember, it seems to me, at least three cases while I was health officer, where the immediate cause of death was stated to be the use of soothing syrup. This medicine contains considerable opium. I do not think opium should be given in any form to a young infant, except where the physicians deem it necessary, and then only under his direction. In cases of colic, which is the distention of the intestines by gas, warm teas will give the necessary relief, and are entirely safe. Paregoric is a safer thing than soothing syrup, but there should be no opiates administered to quiet a child. There is always danger that it will cause congestion of the brain. Some classes of congestion of the brain reported in young children are the result of administering soothing syrup, or some other opiate. It is more difficult to rally a child from the effects of an overdose of an opiate than an adult."

HAZEN MORSE,
Sole Proprietor,
International Bridge, Ontario, and Buffalo, N. Y.

BELLEVUE HOSPITAL MEDICAL COLLEGE,

CITY OF NEW YORK.

SESSIONS OF 1883-4.

THE standard of Medical Ethics recognized by the College is embodied in the Code of Ethics of the American Medical Association.

The COLLEGIATE YEAR embraces the Regular Winter Session and a Spring Session. The REGULAR SESSION begins on Wednesday, September 19, 1883, and ends about the middle of March, 1884. During this session, in addition to the regular didactic lectures, two or three hours are daily allotted to clinical instruction. Attendance upon two regular 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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Fees for Students who have attended two full courses at other Medical Colleges, and for Graduates of other Medical Colleges	70 00
Matriculation Fee	5 00
Dissection Fee (including material for dissection)	10 00
Graduation Fee	30 00

No Fees for Lectures are required of third-course Students who have attended their second course at the Bellevue Hospital Medical College.

Fees for the Spring Session.

Matriculation (Ticket valid for the following Winter)	$5 00
Recitations, Clinics and Lectures	40 00
Dissection (Ticket valid for the following Winter)	10 00

For the annual Circular and Catalogue, giving regulations for graduation and other information, address

PROF. AUSTIN FLINT, JR.,
Secretary, Bellevue Hospital Medical College.

Established 1850. | **Incorporated by Act of Parliament.**

Trinity Medical College, Toronto

IN AFFILIATION WITH

The University of Trinity College, The University of Toronto, The University of Manitoba; and recognized by the several Royal Colleges of Physicians and Surgeons in Great Britain.

The WINTER SESSION of 1883-84 will commence on MONDAY, OCT. 1st, 1883.

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Assistant Demonstrator of Anatomy.

G. S. RYERSON, M.D., L.R.C.P. & S., Edin.; Surgeon to the Mercer Eye and Ear Infirmary, and Toronto General Hospital.—317 Church Street.

Lecturer on the Eye, Ear and Throat.

MATRICULATION.—Students are advised before commencing their medical studies, to pass the Matriculation Examination of the Medical Council of Ontario or Quebec, either of which will be accepted by the University of Trinity College. Students from the Maritime Provinces, Ontario, or the United States, who do not desire to pass the Council Examination, will be admitted to attendance on Lectures, but must present themselves for the Matriculation Examination of Trinity University, or the Matriculation in Toronto University at the usual time The matriculation of the Universities may be passed at any time before graduation.

REQUIREMENTS FOR DEGREE.—The candidate must be 21 years of age; and (1) must have studied medicine four years, and during that time attended *four winter sessions*; or (2) present a certificate of one year's study with a medical practitioner, and tickets of subsequent attendance upon *three winter sessions*.

HOSPITALS.—The Toronto General Hospital has a very large number of patients in the wards, who are visited daily by the medical officers in attendance. The attendance of out-door patients daily is also very large, and thus abundant opportunities are enjoyed by students, for acquiring a familiar knowledge of Practical Medicine and Surgery, including not merely major operations, but minor Surgery of every kind, ordinary Medical Practice, the treatment of Venereal Diseases, and the Diseases of Women and Children. The Burnside Lying-in Hospital, amalgamated with the Toronto General Hospital, has recently had its staff largely increased, and will afford special and valuable facilities for the study of Practical Midwifery. The large new building, close to the Hospital and School, will be very convenient for students attending its practice. The Mercer Eye and Ear Infirmary is also amalgamated with the Toronto General Hospital, and affords special facilities for students in this department.

TORONTO DISPENSARY.—This was established several years ago, and affords abundant facilities for practical instruction in the diagnosis and treatment of diseases of all forms. It is open to students free of charge.

CLINICAL TEACHING.—Daily clinical instruction in the spacious wards and theatre of the Hospital, will be given by members of the Hospital Staff on all interesting cases, Medical and Surgical. ☞ Arrangements have also been made for the delivery of *daily clinics*, out-door and in-door in the theatre of the *Hospital*, by the respective professors in medicine and surgery of both schools, in addition to the usual clinics.

PRACTICAL ANATOMY.—The dissecting room is large, well lighted and ventilated, and abundantly provided with excellent material. The demonstrator and his assistants will be in attendance daily from 10 to 12 a.m.

FEES FOR THE COURSE.—The Fee for Anatomy, Surgery, Practice of Medicine, Obstetrics, Materia Medica, Physiology, and General Chemistry, $12 each. Practical Anatomy, Practical Chemistry, Medical Jurisprudence, and Microscopy, $8 each; Clinical Medicine and Clinical Surgery, $6 each; Botany and Sanitary Science, $5 each; Registration Fee (payable once only), $5. Students are free in all the regular Branches after having attended the School during two full courses.

Full information respecting Lectures, Fees, Gold and Silver Medals, Scholarships, Certificates of Honor, Graduation, Diplomas, Fellowship, etc., will be given in the annual Announcement, for which, apply to

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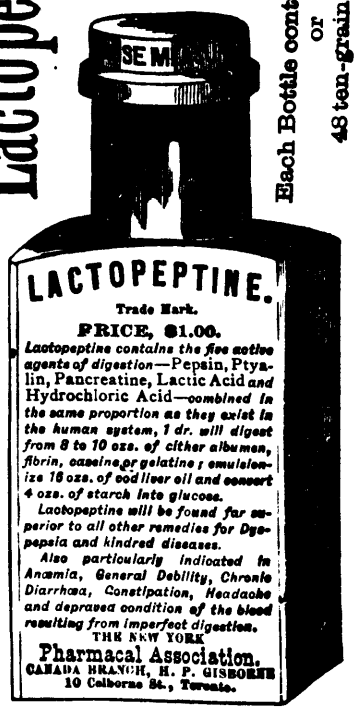

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Certificate of Composition and Properties of Lactopeptine by Professor ATTFIELD, Ph.D., F.R.S., F.I.C., F.C.S., Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain.

LONDON, May 8, 1882.

Lactopeptine having been prescribed for some of my friends during the past five years—apparently with very satisfactory results—its formula, which is stated on the bottles, and its general character, have become well known to me. But recently the manufacturer of this article has asked me to witness its preparation on the large scale, to take samples of its ingredients from large bulks, and examine them and also mix them myself, and to prepare Lactopeptine from ingredients made under my own direction, doing all this with the object of certifying that Lactopeptine is what its maker professes it to be, and that its ingredients are in quality the best that can be obtained. This I have done, and I now report that the almost inodorous and tasteless pulverulent substance termed Lactopeptine is a mixture of the three chief agents which enable ourselves and all animals to digest food. That is to say, Lactopeptine is a skilfully prepared combination of meat-converting, fat-converting, and starch-converting materials, acidified with those small proportions of acids that are always present in the healthy stomach; all being disseminated in an appropriate vehicle, namely, powdered sugar of milk. The acids used at the factory—lactic and hydrochloric—are the best to be met with and are perfectly combined to form a permanent preparation; the milk sugar is absolutely pure; the powder known as "diastase" or starch-digesting (bread-, potato-, and pastry-digesting) material, as well as the "pancreatin," or fat-digesting ingredient, are as good as any I can prepare; while the pepsin is much superior to that ordinarily used in medicine. Indeed, as regards this chief ingredient, pepsin, I have only met with one European or American specimen equal to that used by the manufacturer of Lactopeptine. A perfectly parallel series of experiments showed that any given weight of acidified pepsin, alone, at first acts somewhat more rapidly than Lactopeptine containing the same weight of the same pepsin. Sooner or later, however, the action of the Lactopeptine overtakes and outstrips that of pepsin alone, due, no doubt, to the meat-digesting as well as the fat-digesting power of the pancreatin contained in the Lactopeptine. My conclusion is that Lactopeptine is a most valuable digesting agent, and superior to pepsin alone.

JOHN ATTFIELD.

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One of its chief features (and the one which has gained it a preference over all digestive preparations) is, that it precisely represents in composition the natural digestive juices of the stomach, pancreas and salivary glands, and will therefore readily dissolve all foods necessary to the recuperation of the human organism.

FORMULA OF LACTOPEPTINE:

Sugar of Milk.....40 ounces.	Veg. Ptyalin or Diastase.....4 drachms.
Pepsin..... 8 ounces.	Lactic Acid.....5 fl. drachms.
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LACTOPEPTINE is sold entirely by Physicians' Prescriptions, and its almost universal adoption by physicians is the strongest guarantee we can give that its therapeutic value has been most thoroughly established.

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