

Technical and Bibliographic Notes / Notes techniques et bibliographiques

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

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

- Additional comments /
Commentaires supplémentaires:

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

- Coloured pages / Pages de couleur
- Pages damaged / Pages endommagées
- Pages restored and/or laminated /
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées
- Pages detached / Pages détachées
- Showthrough / Transparence
- Quality of print varies /
Qualité inégale de l'impression

- Includes supplementary materials /
Comprend du matériel supplémentaire

- Blank leaves added during restorations may
appear within the text. Whenever possible, these
have been omitted from scanning / Il se peut que
certaines pages blanches ajoutées lors d'une
restauration apparaissent dans le texte, mais,
lorsque cela était possible, ces pages n'ont pas
été numérisées.

THE
CANADA LANCET,

A MONTHLY JOURNAL

OF

MEDICAL AND SURGICAL SCIENCE,
CRITICISM AND NEWS.

EDITED BY

J. L. DAVISON, B.A., M.D., C.M., M.R.C.S., E.
GEORGE PERRY SYLVESTER, M.D.

VOL. XXIX.

TORONTO :
THE HUNTER, ROSE CO., LIMITED, PRINTERS
1897.

LIST OF CONTRIBUTORS TO VOL. XXIX.

- J. MADISON TAYLOR, A.M., M.D., Philadelphia.
O. McCULLOUGH, B.A., M.D., Erin, Ont.
F. L. VAUX, M.D., New York.
ALEX. FORIN, M.D., Rossland.
H. B. ANDERSON, M.D., Toronto.
ALEXANDER MCPHEDRAN, Toronto.
CAMPBELL MEYERS, M.D., M.R.C.S. Eng., L.R.C.P. Lond., Toronto.
J. COPLIN STINSON, M.D., C.M., San Francisco.
NORMAN ALLEN, M.D., M.R.C.S. Eng., Toronto.
PRICE-BROWN, M.D., Toronto.
J. T. FOTHERINGHAM, M.D., Toronto.
A. J. HARRINGTON, M.D., Toronto.
PROF. SHUTTLEWORTH, Toronto.
H. LAPHORN SMITH, B.A., M.D., M.R.C.S. Eng., Montreal.
ALFRED J. HORSEY, M.D., M.R.C.S. Eng., Ottawa.
B. E. MCKENZIE, B.A., M.D., Toronto.
H. P. H. GALLOWAY, M.D., Toronto.
J. E. GRAHAM, M.D., L.R.C.P. Lond., Toronto.
PERRY E. GOLDSMITH, M.D., C.M., Belleville, Ont.
DILLON BROWN, M.D., New York.
H. MEEK, M.D., London, Ont.
MURRAY MCFARLANE, M.D., Toronto.



INDEX TO VOL. XXIX.

	PAGE.	PAGE	
Amnesia.....	555	Bismuth Sub-nit.....	158
Air passages, Wounds of.....	563	Burns, Picric Acid in.....	447
Adenoids.....	567	Baldness, Microbial.....	509
Arsenic, Points on.....	604	Bed Treatment.....	559
Abscess, Pharyngeal.....	621	Burns, Death from.....	561
Antiseptic Surgery, by O. McCullough, M.D., Erin, Ont.....	7	Colles' Fracture.....	10
Albuminuria, Cyclic.....	38	Catarrh, Post Nasal.....	44
Appendix Operation for Volvulus, by F. L. Vaux, M.D., Mt. Sinai Hospital, N. Y.....	59	Cervical Glands, New Operation for.....	56
Appendix Abscess, by Alexander McPhed rao, M.B., Toronto.....	115	Cancer, Deodorizer.....	58
Auto-infection, Intestinal.....	126	Carbolic, Antidote.....	58
Arthritis Deformans.....	132	Casts, Staining of.....	83
Anastomosis—Entero.....	137	Cerumen, Impaction of.....	101
Aphonia, New Treatment of Hysterical.....	143	Constipation in Infants.....	106
Accommodation, Nasal Obstruction in.....	149	Cholera Infantum, Irrigation of the colon in.....	110
Alcohol to Children.....	155	Consumption, Cold air in.....	111
Ataxia Cerebellar, by Campbell Meyers, M.D., etc., Toronto.....	167	Clavicle, Fracture of, Sleeve Bandage for.....	124
Abdominal Surgery.....	178	Circulation, Cerebral, in Man.....	140
Albuminuria, Hot air in.....	188	Corneal Opacities.....	151
Abdomen, Examination of, during Puerper- ium.....	192	Carbolic, Abuse of.....	153
Antitoxin Diphtheria.....	214	Carcinoma, Alcohol in.....	160
Anus, Fissure of.....	229	Carbuncles.....	235, 179
Antitoxin, The passing of.....	239	Cysts of Tubes, etc.....	191
Appendicitis, Treatment of.....	494, 240	Cæsarean Section.....	197
Aphasia.....	250	Child not a little man.....	208
Apoplexy, Clinical Notes on a case of, by A. J. Harrington, M.D., Toronto.....	273	Chorea.....	210
After-treatment of operative cases.....	280	Celiotomy.....	215
Animal Extracts.....	299	Club Foot.....	232
Auto-intoxication.....	351	Coryza, Acute.....	463, 255
Anastomosis, Intestinal, New ring for.....	384	Chronic Acid, Danger of.....	321
Abscess, Subphrenic.....	390	Cirrhosis of Liver.....	372
Acetylene Toxic.....	460	Chorea.....	410
Asthma.....	463	Croup.....	417
Antitoxin Immunization, by Perry G. Goldsmith, M.D., C.M., Belleville, Ont.....	480	Creasote, For children.....	420
Anastomosis, Intestinal.....	488	Catarrh, Cleanliness in.....	424
Asphyxia from Ether in Stomach.....	502	Cholera and Tobacco.....	456
Antitoxin in treatment of Laryngeal Dipht- heria, by Dillon Brown, M.D., New York.....	531	Customs Tariff.....	527, 474
Broncho-Pneumonia in Children.....	50	Conjunctivitis.....	522
Bulbar Paralysis.....	95	Cutaneous Accidents.....	607
Bromic Intoxication.....	142	Diabetes, Treatment of.....	608, 26
Bathing.....	156	Dropsy, Post-scarlatina.....	155
Brain Surgery.....	175	Delivery, P. M.....	156
Bronchitis-tent.....	291, 183	Drainage, Abdominal.....	183
Breathing, Oral and Nasal, by Price-Brown, M.D., Toronto.....	222	Diarrhœa, Salol in.....	217
Bacteria of Gastro-Intestinal Tract.....	264	Diphtheria.....	466, 415, 237
Baldness.....	311	D. T's., Chloride of ammonia in.....	297
Burns, Turpentine in.....	321	Diphtheria, Bacteriological diagnosis of, by Prof. Shuttleworth, Toronto.....	323
Bladder, Irritable.....	321	Dysmenorrhœa, Treatment of, by A. Lap- thorn Smith, B.A., M.D., etc., Mon- treal.....	329
Belt, Abdominal.....	341	Diphtheria, Serum treatment of.....	443
Bicycle, The.....	418	“ Bacilli in blood, etc.....	457
		Dermatitis, X-rays.....	498
		Diabetes in child.....	502
		“ Forms of.....	513
		Dissecting Room, In the.....	601
		Elephantiasis Case, The McIntyre.....	18
		Ectopic Gestation.....	27
		Enuresis.....	314, 154, 104

	PAGE		PAGE
Epilepsy Cardiac.....	199	Indigestion, Intestinal.....	542
Ectopic Gestation, by Norman Allen, M.D., Toronto.....	219	Insanity, Due to eye-strain, by J. Murray McFarlane, M.D., Toronto.....	591
Empyema in Children.....	279	Kidney, Removal for Tuberculosis.....	138
Epilepsy, Consciousness in.....	302	" Floating.....	182
Eczema in children.....	368, 316	Kola, Dangers of.....	379
Epithelial Sowing.....	320	Kidney, Anchoring.....	388
Eucaïne.....	411, 361	" Surgery of.....	434
Electricity, Static, in Nervous Diseases.....	406	Laryngeal Tuberculosis.....	43
Eclampsia, Bleeding in.....	410	Laryngitis.....	43
Eunuchs.....	416	Liver, Glycogenic Function of.....	347
Eclampsia.....	451	Laryngological Literature.....	613
Epilepsy, Focal Treatment.....	455	Mental Impairment in Children, by J. Madison Taylor, A.M., M.D., Philadelphia.....	1
Epistaxis.....	464	Mankind and the Doctor.....	78
Electrical Facts.....	477	Myopia, Treatment, Operative.....	99
Erysipelas.....	487	Mastoid Disease, Surgery of.....	304
Epilepsy, Treatment of.....	493	Meningitis, Tubercular, Recovery.....	249
Ethmoiditis Suppurativa.....	517	Measles, in the Mouth.....	262
Epilepsy, Diet in.....	529	Menstruation, Cold Bathing During.....	307
Feeding of Infants.....	46	Middle Ear, Chronic Suppuration of, by Alfred J. Horsey, M.D., M.R.C.S. Eng., Ottawa.....	375
Fontanelle, The.....	210	Metorrhagia.....	410, 405
Foods for Children.....	316	Morphinomania in Infant.....	470
Fibroids, Glycerine in.....	405	Mumps.....	503
Fœtal Inclusion.....	424	Malingering, etc.....	504
Fracture of Extremities.....	435	Malnutrition of Infants.....	522
Gastritis, Disease of mouth, nose and throat factors in.....	45	Meningitis, Early Sign of.....	530
Gout.....	57	Methyl Salicylate.....	534
Gonorrhœa in the Female.....	57	Medical Notes.....	187, 547, 546
Gonorrhœal Ophthalmia.....	101	Nose, as a Germ Filter.....	42
" Forensic point of view.....	203	Nasal Catarrh.....	42
Glycosuria.....	203	Nasal Operations, New Position for.....	44
Gastralgia, Arsenic in.....	216	Neuralgia.....	50
Gastric affections, Silver in.....	247	Neurasthenia.....	562, 102
Green Diarrhœa of Children.....	264	Nurse, The New.....	186
Gonorrhœa, Creosote.....	318	Nephritis, In Children.....	298
Gas Poisoning, by J. E. Graham, M.D., L.R.C.P. (Lond.), Toronto.....	427	Neuroses.....	300
Gastric Ulcer.....	53	Nasal Disease, Prophylaxis of.....	308
Glandular Fever of Childhood.....	623	New, Nothing.....	397
Hay Fever.....	58	Nasal Spars, Electrolysis in.....	414
Health, Influence of Nasal Diseases on.....	91	New Remedies.....	461
Hydrocele, New operation for.....	188	Nose, Micro-organisms in.....	465
Hæmorrhoids.....	236	Nervous Diseases of Syphilitic Origin.....	484
Hemiplegia, Dipththeric.....	312	Nose Bleach.....	503
Hemorrhage, Prevention of.....	321	Nasal Cases, Chancre, Dermoid Cyst.....	514
Heredity and Crime.....	324	" " Interesting.....	515
Hip, Dislocation of.....	325	Neurology, Value of.....	558
Hip-joint, Disease of, in Children.....	366	Oophorectomy, Effect of.....	211
Hysteria in Children.....	418	Otitis Media etc.....	259
Holidays.....	424	Opium Poisoning.....	324
Hernia, Gangrene, Carcinoma.....	439	Orthopedic Surgery, Definition and Scope of.....	380
Hearts, Weak, Diet in.....	448	Ovarium Tumors, Diagnosis of Small.....	405
Hysteria.....	456	Occupation Neuroses.....	453
Hemorrhage, Renal.....	458	Ovariectomy, by Alex. Forin, M.D., Rossland.....	485
Hearing, Binaural.....	462	Orchectomy, Inguinal.....	501
Herpes, Laryngeal.....	464	Ovary, Cystic, Tumors of, by H. Meek, M.D., London, Ont.....	585
Intestinal Fermentation.....	24	Otology.....	622
Insanity, Intestinal.....	198, 36	Prostate, Castration, Failure of.....	14
Infantile Diarrhœa, Pathology of.....	86	Pneumococci, Localization of.....	39
Itching, Pathology, treatment.....	117	Pelvic Inflammations, Suppuration in.....	134
Injuries of Bones, into joint Cavities.....	118		
Inguinal Hernia, by J. Coplin Stinson, Rossland, B.C.....	169		
Infantile Constipation.....	263		
Intestinal Putrefaction.....	373		
Infection, Resistance to.....	523		
Itching, Caustion.....	525		

INDEX.

vii

	PAGE.		PAGE
Post Partem Hemorrhage, Turpentine in . . .	138	Syphilis, Life Insurance	319
Palsy—Scrivener's	139	Sprained Ankles	340
Papilloma, Large	147	Sensation, Disturbances of	358
Pericardium, Adherent in Children	153	Syphilis, Congenital, Signs of	360
Pharyngitis	189	Spelling, Medical	398
Premature Infants	207	Stomatitis	419
Pelvis, Contracted, Delivery in	245	Sciatica	508
Puerperal, Auto-Infection	246	Septum, Abscess of	516
Phlyctenular Ophthalmia	258	Sac, Amniotic, When to Rupture	530
Pancreas, Carcinoma of	343	Schott, Treatment of Heart Disease	535
Pruritus, Ani	333	Tubercle of Female Genitals	40
Pneumonia, Stimulating Treatment of	346	Typhoid, Diet in	51
Psychoses, Following Operations	454	Typhoid, General Health in	53
Phthisis, Cold air in	423	Tumors, Malignant, Toxins in	67
Pelvis, Pus in	450	Tic, Convulsive	103
Polio-Myelitis, Acute	468	Tracheal, Intra-Medication	148
Pott's Disease	469	Teeth, Congenital	155
Pot. Iod., or Pot. Sod	484	Temper, Bad, Treatment of	189
Pneumotomy	491	Tracheotomy	206
Pediatrics, General Considerations	518	Typhoid, Serum, Diagnosis of	609, 212
Prolapsus Ani, New Treatment	529	Thoracoplasty	216
Pruritus, Vulvae	530	Tape Worm	217
Peritonitis, Acute	548	Tornado, Cures Nervous Disease	248
Pregnancy, Nausea	568	Tonsillar Hemorrhage	257
Problems in Surgery	592	Typhoid, With Unusual Symptoms. J. T. Fotheringham, M.D., Toronto	271
Rheumatism	58	Tubal Pregnancy	309, 355
Retroversion, &c., of Uterus	88	Typhoid, Feeding After	392
Rectum, Stricture of	121	Throat Examination	419
Rhinitis, Atrophic	144	Tobacco in Nervous Disorders	454
Rheumatoid, Arthritis	301	Tuberculosis and Climate	606
Rectum, Imperforate	315	Uterus, Retrodisplacement of	157
Ringworm, Formalin in	448	Urethritis	195, 189
Rheumatism, Infectious	459	Urticaria	202, 190
Rectum, Cancer of	495	Uterus, Sarcoma of	195
Stomach, Mechanical Action of	16	Urine of 24 Hours	294
Surgical Hints	17, 123, 180, 290, 442, 492, 493	Uremia	460
Sea Air in Nose Troubles, etc	41	Vaginal Hysterectomies, Five Hundred	137
Symphysiotomy	61	Ventral Fixation	194
Septicæmia, Acute, Recovery	88	Vinegar, Antidote to Carbolic Acid	269
Scissors, Hawk Bill, Nasal	91	Volvulus, After Operation	391
Syphilis, Congenital	105	Vas, Section of	398
Septicæmia, Complicating Gonorrhœa, by H. B. Anderson, M.D., Toronto	113	Vaginal Hysterectomy	449
Supra-Renal Bodies	201	Vaccination, Against Typhoid	560
Strychnia Poisoning, Camphor in	217	Victorian Order of Nurses	579
Secondary Abdominal Section	232	Warnings, Three	58
Sleeplessness, Nervous	247	Wildcat Medical College	266
Serum, Reaction in Typhoid, etc	303, 251		
Syphilodermata	267		

THE
CANADA LANCET

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

THE OLDEST MEDICAL JOURNAL IN THE DOMINION.

Vol. XXIX. }
No. 1. }

TORONTO, SEPTEMBER, 1896.

{ Price, 30 Cents.
{ \$3 per Annum.

Lactopeptine is used in all Hospitals, and has the endorsement of the Medical Profession throughout the world.

Preparations of Lactopeptine



LACTOPEPTINE POWDER

Containing the five active agents of digestion: PEPSIN, PANCREATIN, PTYALIN, LACTIC and HYDROCHLORIC ACIDS, in the proportions in which they exist in the healthful human stomach.

LACTOPEPTINE ELIXIR

Represents above preparation in liquid form, combining a tonic with the digestive action. An elegant and palatable preparation.

LACTOPEPTINE ELIXIR

WITH PHOSPHATES IRON, QUINIA AND STRYCHNIA

A powerful General and Nerve Tonic, in combination with ELIXIR LACTOPEPTINE as described above.

LACTOPEPTINE TABLETS

Each Tablet contains 5 grains of LACTOPEPTINE POWDER. Elegant, accurate in dosage, and exceedingly palatable.

OOOO

For Sale
by all Druggists.

THE NEW YORK PHARMACAL ASSOCIATION,
88 Wellington Street West,
TORONTO.

THE CANADA LANCET.

INDEX TO CONTENTS.

ORIGINAL COMMUNICATIONS—

	PAGE.
The Cause of Mental Impairment in Children	1
Observations on Antiseptic Therapy	7

SURGERY—

Colles' Fracture.....	10
Failure of Castration to cause Atrophy of the Prostate.....	14
Some Mechanical Causes of Interference with the Action of the Stomach and their Surgical Relief.....	16
Surgical Hints	17

MEDICINE—

The McIntyre Elephantiasis Case.....	18
Intestinal Fermentation.....	24
Treatment of Diabetes Mellitus with Rectal Injections of Pancreatic Glands.....	26

OBSTETRICS AND GYNECOLOGY—

Ectopic Gestation	27
-------------------------	----

PATHOLOGY AND BACTERIOLOGY—

	PAGE.
Insanity from Poison Generated in the Intestine.....	36
Cyclic Albuminuria.....	38
Extra-Pulmonary Localizations of the Pneumococcus—Pneumococci and their Localization and Pneumococcal Pericarditis, etc.....	39

NOSE AND THROAT—

The Influence of Sea Air on Affections of the Nose, the Throat and the Ears—The Nose as a Germ-Filter—The Prophylaxis of Nasal Catarrh, etc....	41
---	----

PAEDIATRICS—

The Management of Infant Feeding.....	
---------------------------------------	--

EDITORIAL—

Diet in Typhoid.....	51
The Relationship of Prognosis to General Health in Typhoid Fever.....	58
"Turn the Rascals Out"	55
Personal.....	56

"the active principle."

Drugs are valuable because of their physical or chemical influences upon the tissues of the body.

Foods are valuable because they become part and parcel of every tissue.

It is natural to look for an active principle in the former.

It is useless to look for an active principle in the latter.

Five grains of the active principle of a loaf of bread could never supply the material for building up tissue equal to that furnished by an entire loaf.

Cod-liver Oil is largely a fat-producing food, possessing special and peculiar advantages distinct from all other foods.

Scott's Emulsion

of Cod-liver Oil, with the hypophosphites of lime and soda, contains

THE WHOLE OIL.

1. The fat of cod-liver oil is valuable. 2. The alkaloids of cod-liver oil are valuable. The first is not cod-liver oil; neither is the second—each is a part only of the whole.

1. Preparations of the alkaloids may be made. 2. Other oils or fats may be substituted. But neither can take the place of the whole cod-liver oil. The fat of this oil differs from all other fats. The reputation of cod-liver oil as a curative agent, established for centuries, rests upon the administration of the whole oil.

50 Cents and \$1.00.

SCOTT & BOWNE, Manufacturing Chemists, New York.

Use Pure Water!

THE "SUCCESS" NATURAL TRIPOLI STONE FILTER AND COOLER (GERM PROOF)

Supplies a Long-Felt Want.

A Perfect Purifying Filter is now offered at a price within the reach of all. The filtering-block is Tripoli Stone, quarried from the earth—Nature's own process of filtering. It does not allow the filth and impurities to penetrate its pores. They are retained upon the surface until brushed off in the cleaning. Inside of block is as pure and white after years of use, as when taken from the quarry. All old-style filters, packed with sponge, charcoal and gravel, absorb and retain the filth and putrid matters, which are impregnated with disease germs, and if you use such a filter you are constantly drinking water filtered through this accumulation of filth and poisonous matter. This one can be cleaned in two minutes with a soft brush or sponge, or by simply holding it under a tap.

Call and see it in Operation.

RICE LEWIS & SON (LIMITED)

Cor. King and Victoria Sts., - - TORONTO.

LISTERINE.

THE STANDARD
ANTISEPTIC.

LISTERINE is to make and maintain surgical cleanliness in the antiseptic and prophylactic treatment and care of all parts of the human body.

LISTERINE is of accurately determined and uniform antiseptic power, and of positive originality.

LISTERINE is kept in stock by all worthy pharmacists everywhere.

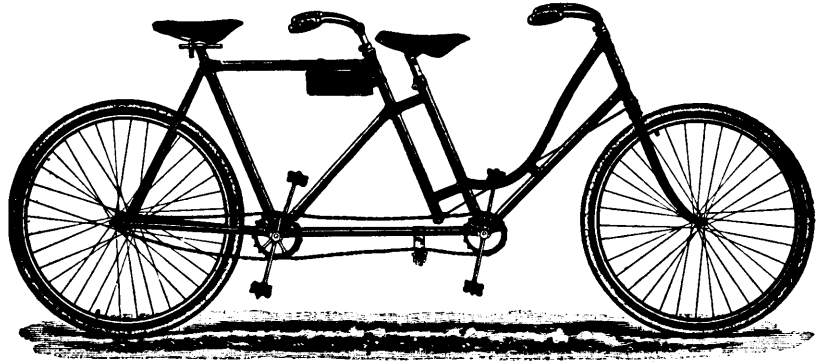
LISTERINE is taken as the standard of antiseptic preparations; The imitators say it is something like "LISTERINE."

**LAMBERT'S
LITHIATED
HYDRANGEA.**

A valuable Renal Alterative and Anti-Lithic Agent of marked service in the treatment of Cystitis, Gout, Rheumatism, and diseases of the Uric Diathesis generally.

Descriptive Literature on Application.

Lambert Pharmacal Company, ST. LOUIS.



The **Dayton** *Finish and Quality the Best.*
Singles and Tandems in all Sizes.

 **J. & J. Taylor,**

145 Front St. East.
8 King St. West.

Sole Canadian Importers,

Toronto, Ont.

Dr. J. Algernon Temple.

Dr. Albert A. Macdonald.

BELLEVUE HOUSE

 ——— 78 Bellevue Ave., TORONTO.



Private Hospital
For the Treatment of



= Medical and =
Surgical

DISEASES OF WOMEN.

.....
Massage and Electricity Used in All
Suitable Cases.

.....
Rooms from \$7 to \$15 a Week.

FOR FURTHER PARTICULARS ADDRESS.....

J. Algernon Temple, M.D., OR **Albert A. Macdonald, M.D.,**
205 Simcoe Street, TORONTO. 180 Simcoe Street, TORONTO



**LAKEHURST SANITARIUM,
OAKVILLE, ONT.**

THE attention of the Medical Profession is respectfully drawn to the uniform success attending the treatment of Alcoholism and Morphine Addiction at Oakville. A prominent medical man in Toronto has, within the last few weeks, paid a glowing tribute to its efficacy in the case of one of his patients who had long since lost susceptibility to the ordinary form of treatment employed and whose life seemed to hang in the balance. Many come to Oakville in the last stages of the malady, yet of these but two cases in four years have proved to be beyond reach of our treatment—a record well deserving thoughtful consideration of the Profession.

For terms apply

Toronto Office,

23 Bank of Commerce Chambers,

Or, **The Medical Superintendent,**
Oakville.

**FLAVELL'S
ABDOMINAL SUPPORTER.**

DIRECTIONS FOR MEASUREMENT.

(Give Exact Circumference of Body at K.L.M.)

CATALOGUE FREE.

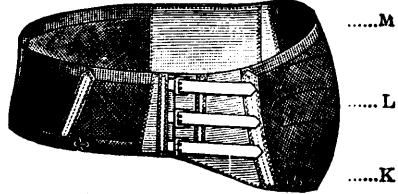


Fig 1.

PRICE TO PHYSICIANS.

Silk Elastic, each - - - \$2.75
Thread Elastic, each - - - \$2.00

The Abdominal Supporter is used extensively after Laparotomy by all the leading surgeons, and gives perfect satisfaction to women during pregnancy.

GOODS SENT BY MAIL ON RECEIPT OF PRICE,
SAFE DELIVERY GUARANTEED.

G. W. FLAVELL & BRO.,
MANUFACTURERS,
1005 SPRING GARDEN STREET,
PHILADELPHIA, PA.

DR. H. B. ANDERSON

begs leave to announce to the Profession that he is prepared to make Chemical, Bacteriological or Microscopic Examination as required, of Tumors or other Morbid Tissues, Sputum, Urine, Blood, Stomach Contents, etc., also to make Autopsies.

For information address,

PATHOLOGICAL LABORATORY,

Trinity Medical College,

TORONTO.

DYSPEPSIA FLOUR.
Also Special Diabetic Food, Barley Crystals,
and Patent Biscuits, Cakes, and Pastry Flour.
Unrivalled in America or Europe.
Pamphlets and Baking Samples Free.
Write Farwell & Abine, Waretown, N. Y., U.S.A.

Why Is It

that our competitors became so interested in pushing preparations of Cascara after **Stearns' Cascara Aromatic—the Original** came into the field in '89?

Why Is It

that Cod Liver Oil preparations of all kinds took a spurt after **Stearns' Wine of Cod Liver Oil** was introduced?

Why Is It

that Organic Iron preparations were exploited after **Haemoferrum (Stearns')** was put upon the market?

Why Is It

that since we introduced our **Kola** preparations everyone is now "booming" Kola?

There is but one answer to all the above, which is that **STEARNS'** preparations were successful and made the market, which others hope to gain the benefit of.

Samples of any or all of the above preparations, as well as complete literature thereon, will be mailed to any physician on request.

Frederick Stearns & Co.

Manufacturing
Pharmacists,

- Windsor, Ont.

A Vitalizing Tonic to the Reproductive System.

SANMETTO

—FOR—

GENITO-URINARY DISEASES.

A Scientific Blending of True Santal and Saw Palmetto
in a Pleasant, Aromatic, Vehicle.

SPECIALLY VALUABLE IN

Prostratic Troubles of Old Men—Pre-Senility,
Difficult Micturition—Urethral Inflammation,
Ovarian Pains—Irritable Bladder.

POSITIVE MERIT AS A REBUILDER.

DOSE :—One teaspoonful four times a day.

OD CHEM. CO., New York.

1866 to 1896.

A Record Unsurpassed in Medical Annals.

“H. V. C.”

(Hayden's Viburnum Compound.)

A Special Medicine which has increased in demand for THIRTY YEARS, and has given more universal satisfaction in that time to physician and patient than any other remedy in the United States, especially in

Ailments of Women and in Obstetric Practice

For proof of the above statements we refer to any of the most eminent physicians in this country, who will endorse our record.

NON TOXIC, Perfectly safe, prompt and reliable. Send for new handbook, free to physicians.

All druggists, everywhere, Caution—AVOID THE SUBSTITUTOR.

NEW YORK PHARMACEUTICAL CO.

BEDFORD SPRINGS, MASS.

Accurate Administration of Lithia

To make Fresh Lithia Water of Definite Strength
Dissolve One of

WM. R. WARNER & COMPANY'S

ORIGINAL EFFERVESCENT

Lithia Water Tablets

IN A GLASS OF WATER.

EFFICACIOUS, CONVENIENT AND INEXPENSIVE

AN EFFECTUAL REMEDY IN

Rheumatism, Lithemia, Gravel, Bright's Disease,
Gout, Etc., Etc.

IT IS DIURETIC AND ANTACID

Each tablet contains three grains * Citrate of Lithia, so that a definite quantity of soluble Lithia is administered in a pleasant form, besides the advantage of having fresh water with each dose, presenting a therapeutic value of higher standard than the various Lithia spring waters. This is a scientific preparation of the highest standard.

Supplied by all Druggists, or By Mail.

TAKE NO SUBSTITUTES.

* Made in 5 gr. tablets also.

ORIGINAL WITH AND MADE ONLY BY

WM. R. WARNER & CO.

1228 Market Street,
PHILADELPHIA.

52 Maiden Lane,
NEW YORK.

197 Randolph Street, CHICAGO.

When prescribing **PILLS OF ANY KIND** secure them perfectly soluble and quickly assimilable by specifying "W. R. W. & CO.'S."

W. M. R. WARNER & CO.'S

SOLUBLE, RELIABLE AND PERMANENT

Sugar and Gelatin Coated Pills.

PIL. CHALYBEATE.

(W. R. WARNER & CO.)

Photo-carb. of Iron, 3 grains. Dose—1 to 3 pills.
(William R. Warner & Co.'s Ferruginous Pills.)
Ferri Sulph. Fe SO₄ } Ferri Carb. Fe CO₃
Potass. Carb. K₂ CO₃ } Potass. Sulph. K₂ SO₃

FOR ANEMIA.

SCROFULA.

PIL. CHALYBEATE COMP.

(W. R. WARNER & CO.)

Formula—Carb. Protoxide of Iron, gr. ijss.
Ext. Nuc. Vom. gr. 1-8

ADVANTAGES:—Does not constipate, is easily absorbed, is nerve tonic and quickly soluble.

RHEUMATISM.

INDIGESTION.

PIL. ANTISEPTIC.

Each Pill contains Sulphite Soda, 1 gr.
Salicylic Acid, 1 gr.
Ext. Nuc. Vom. ¼ gr.

Dose—1 to 3 pills.

Pil. Antiseptic is prescribed with great advantage in cases of Dyspepsia attended with acid stomach and enfeebled digestion following excessive indulgence in eating or drinking. It is used with advantage in Rheumatism.

RHEUMATISM.

INDIGESTION.

PIL. ANTISEPTIC COMP.

(W. M. R. WARNER & CO.)

Formula—Sulphite Soda, gr. 1
Ext. Nuc. Vomica, gr. 1-8
Salicylic Acid, gr. 1
Powd. Capsicum, gr. 1-1
Concent'd Pepsin, gr. 1

Try this Pill. Used in all cases where there is no well-defined malady, yet patient is not well.

PIL. SUMBUL COMP.

(W. M. R. WARNER & CO.)

Ext. Sumbul. 1 gr. Ferri Sulph. Ext. 1 gr.
Asafetida 2 gr. Ac. Arsenious. 1-30 gr.

DR. GOODELL:—"I use this pill for nervous and hysterical women who need building up."

This pill is used with advantage in neurasthenic conditions in conjunction with Warner & Co.'s Bromo-Soda, one or two pills taken three times a day.

PIL. LADY WEBSTER.

(W. M. R. WARNER & CO.)

R Pulv. Aloes. 2 gr. Pulv. Rose les. ½ gr.
Pulv. Mastic. 1 gr. M. ft. one pill.

LADY WEBSTER DINNER PILLS.

This is an excellent combination officially designated as Aloes and Mastich, U. S. P. We take very great pleasure in asking physicians to prescribe them most liberally, as they are very excellent as an aperient for persons of full habit or gouty tendency when given in doses of one pill after dinner.

PIL. CASCARA CATHARTIC.

(DR. HINKLE.)

Each containing

Cascarin, Ext. Belladon., 1-8 gr.
Aloin, aa 1-4 gr. Strychnin, 1-60 gr.
Podophyllin, 1-6 gr. Gingerine, 1-8 gr.

Dose—1 to 2 pills.

PIL. ARTHROSIA.

(WARNER & CO.)

For cure of Rheumatism and Rheumatic Gout.

FORMULA—Acidum Salicylicum; Resina Podophyllum; Quinina; Ext. Colebicum; Ext. Phytolacca; Capsicum.

Almost a specific in Rheumatic and Gouty Affections.

Please specify WARNER'S, and order in original bottles of 100 pills.

PIL. PERISTALTIC.

(WARNER & CO.)

Each containing

Aloin, 1-4 gr. Ext. Bellad., 1-8 gr.
Strychnin., 1-60 gr. Ipecac, 1-16 gr.

Dose—1 to 2 pills.

Therapeutics—Cathartic Tonic.

PREPARED BY

WILLIAM R. WARNER & CO.

Originators and Manufacturers of Bromo-Soda, Bromo-Potash, Triple Bromides, and a full line of Effervescent Salts.

PHILADELPHIA.

NEW YORK.

CHICAGO.

LONDON.

POTENT.

RELIABLE.

SOLUBLE.

"In Medicina Qualitas Prima Est"

... FOUNDED 1856.

FREE TO OUR DOCTOR FRIENDS—Visiting Records, Prescription Blanks.

WILLIAM R. WARNER & CO.'S
SOLUBLE, SUGAR-COATED
PHOSPHORUS PILLS.

PHOSPHORUS—"It exists mainly in the nervous centres in the form of a peculiar compound with fatty matter, which has been named 'protagon' just as iron is united with hæmatin in the blood. It actually forms more than one per cent. of the human brain"

Phosphorus is a stimulating nerve tonic, and in suitable cases a true tissue food in every issue of the word.

Specify WARNER & CO.'S
For Full Therapeutic Effect

Pil. Phosphori, 1-100 gr., 1-50 gr., or 1-25 grain..... \$0 40
Dose.—One pill, two or three times a day, at meals.
THERAPEUTICS—When deemed expedient to prescribe phosphorus alone, these pills will constitute a convenient and safe method of administering it.

Pil. Phosphori Co. R Phosphori, 1-100 gr.; Ext. Nucis Vomicae, 1-4 gr..... 50
Dose.—One or two pills, to be taken three times a day, after meals.
THERAPEUTICS—As a nerve tonic and stimulant this form of pill is well adapted for such nervous disorders as are associated with impaired nutrition and spinal debility; increasing the appetite and stimulating the digestion.

Pil. Phosphori cum Nuc. Vom..... 50
R Phosphori, 1-50 gr.; Ext. Nucis Vomicae, 1-8 gr.
Dose.—One or two pills, three times a day, at meals.
THERAPEUTICS—This pill is especially applicable in ATONIC DYSPEPSIA, depression, and in exhaustion from overwork, or fatigue of the mind. PHOSPHORUS and NUX VOMICA are SEXUAL stimulants, but their use requires circumspection as to the dose which should be given. As a general rule, they should not be continued for more than two or three weeks at a time, one or two pills being taken three times a day.

Pil. Phosphori cum Ferro et Quinia. R Phosphori, 1-100 gr.; Ferri Carb., 1 gr.; Quiniae Sulph., 1 gr..... 1 10
Dose.—One pill, to be taken three times a day, at meals.
THERAPEUTICS—PHOSPHORUS increases the tonic action of the iron and quinine, in addition to its specific action on the nervous system. In general debility, cerebral anemia and spinal irritation, this combination is especially indicated.

Pil. Phosphori cum Ferro et Quinia et Nuc. Vom. R Phosph., 1-100 gr.; Ferri Carb., 1 gr.; Ext. Nuc. Vom., 1-4 gr.; Qui. Sulph., 1 gr..... 1 10
Dose.—One pill, to be taken three times a day, at meals.
THERAPEUTICS—The therapeutic action of this combination of tonics, augmented by the special effect of Phosphorus on the nervous system, may readily be appreciated.

Pil. Phosphori cum Quinia et Digital. Co. R Phosphori, 1-50 gr.; Quiniae Sulph., 1-2 gr.; Pulv. Digitalis, 1-2 gr.; Pulv. Opii, 1-4 gr.; Pulv. Ipecac, 1-4 gr..... 1 10
Dose.—One or two pills may be taken three or four times daily, at meals.
THERAPEUTICS—This combination is prescribed in cases of consumption, accompanied daily with periodical febrile symptoms, quinine and digitalis exerting a specific action in reducing animal heat. Patients should, however, be cautioned as to the use of Digitalis, except under the advice of a physician.

By all Druggists, or sent by mail on receipt of price.

WILLIAM R. WARNER & CO.

Manufacturers of Reliable Soluble-Coated Pills, Etc.

1228 Market St., PHILADELPHIA.

197 Randolph St., CHICAGO

52 Maiden Lane, NEW YORK

Superior to Pepsin of the Hog.

INGLUVIN

A POWDER:—Prescribed in the same manner, doses and combinations as Pepsin.

A most potent and reliable remedy for the cure of

Marasmus, Cholera Infantum, Indigestion, Dyspepsia and Sick Stomach.

It is superior to the Pepsin preparations, since it acts with more certainty, and effects cures where they fail.

A SPECIFIC FOR VOMITING IN PREGNANCY
In Doses of 10 to 20 Grains.

PRESCRIBED BY THE MOST EMINENT PHYSICIANS IN EUROPE AND AMERICA.

WM. R. WARNER & CO.'S HYPODERMIC TABLETS, QUICKLY SOLUBLE.

We claim (and a candid comparison will convince any one) for our soluble tablets, the following points of superiority, viz: *First*—They are quickly and entirely soluble. *Second*—They are permanent in form and accurate in dose. *Third*—They are safe, and rapid in action.

Soluble Hypodermic Tablets	Bot. Tube		Soluble Hypodermic Tablets	Bot. Tube	
	100 Tab.	20 Tab.		100 Tab.	20 Tab.
ACONITINE, Pure Cryst., 1-120 gr.....	70	18	MORPHINE SULPHATE, 1-4 gr.....	40	12
APOMORPHINE MURIATE, 1-20 gr.....	60	16	MORPHINE SULPHATE, 1-3 gr.....	50	14
APOMORPHINE MURIATE, 1-8 gr.....	10	36	MORPHINE SULPHATE, 1-2 gr.....	65	17
APOMORPHINE MURIATE, 1-12 gr.....	85	19	MORPH. 1-8, & ATROP. 1-200 gr. No. 1.....	45	13
ATROPINE SULPH. 1-150 and 1-200 gr.....	30	10	" 1-6, " 1-180 gr. No. 2.....	45	13
ATROPINE SULPH. 1-120 gr.....	35	11	" 1-4, " 1-50 gr. No. 3.....	50	14
COCAINE HYDROCHLOR., 1-8 gr.....	50	14	" 1-4, " 1-100 gr. No. 4.....	60	16
COCAINE HYDROCHLOR., 1-10 gr.....	45	13	" 1-8, " 1-150 gr. No. 5.....	45	13
CODEINE SULPHATE, 1-8 gr.....	70	18	" 1-8, " 1-100 gr. No. 6.....	50	14
CONIINE HYDROBROMATE, 1-100 gr.....	30	10	" 1-6, " 1-150 gr. No. 7.....	50	14
CONIINE HYDROBROMATE, 1-60 gr.....	50	14	" 1-6, " 1-120 gr. No. 8.....	55	15
DIGITALINE, Pure, 1-10 gr.....	30	10	" 1-4, " 1-200 gr. No. 9.....	50	14
DIGITALINE, Pure, 1-60 gr.....	50	14	" 1-4, " 1-120 gr. No. 10.....	55	15
DUBOISINE SULPHATE, 1-100 gr.....	50	14	" 1-4, " 1-60 gr. No. 11.....	60	16
DUBOISINE SULPHATE, 1-60 gr.....	80	20	" 1-3, " 1-120 gr. No. 12.....	75	19
ERGOTIN, 1-6 gr.....	60	18	" 1-2, " 1-150 gr. No. 13.....	75	19
ESERINE SULPHATE, 1-60 gr.....	80	20	" 1-2, " 1-120 gr. No. 14.....	75	19
ESERINE SULPHATE, 1-100 gr.....	45	13	" 1-2, " 1-100 gr. No. 15.....	75	19
HYOSCINE HYDROBROM., 1-100 gr.....	75	19	" 1-5, " 1-240 gr. No. 16.....	75	19
HYOSCYAMINE SULPH. 1-10 gr.....	40	12	NITROGLY., 1-50, 1-100, 1-150, 1-200 gr.....	40	12
MERCURY CORROSIVE			*PILOCARPINE MUR. 1-8, 1-20, 1-5 gr.....		
CHLORODIN, 1-60, 1-150, 1-40 gr.....	30	10	" 1-20, 1-8, 1-4 gr.....		
MORPHINE BIMECONATE, 1-3 gr.....	85	21	*PILOCARPINE NIT. 1-30 gr.....	30	10
MORPHINE BIMECONATE, 1-6 gr.....	45	13	SODIUM ARSENATE, 1-150 gr.....	50	14
MORPHINE BIMECONATE, 1-8 gr.....	35	11	STRYCHNINE NITRATE, 1-100 gr.....	35	11
MORPHINE MURIATE, 1-8 gr.....	35	11	STRYCHNINE NITRATE, 1-60 gr.....	40	12
MORPHINE MURIATE, 1-6 gr.....	45	13	STRYCH. SUL. 1-120, 1-100, 1-60, 1-150 gr.....	30	10
MORPHINE NITRATE, 1-6 gr.....	55	15	STRYCH. SUL. 1-20 gr.....	40	12
MORPHINE NITRATE, 1-8 gr.....	50	14	STRYCH. & ATROP. 1-50, 1-30 gr.....	30	10
MORPHINE NITRATE, 1-12 gr.....	50	14	STRYCH. & ATROP. No. 1, 1-50, 1-150 gr.....	50	14
MORPHINE SULPHATE, 1-8 gr.....	30	10	STRYCH. & ATROP. No. 2, 1-30, 1-120 gr.....	50	14
MORPHINE SULPHATE, 1-6 gr.....	35	11	STRYCH. & ATROP. No. 3, 1-60, 1-150 gr.....	50	14

*Prices on application.

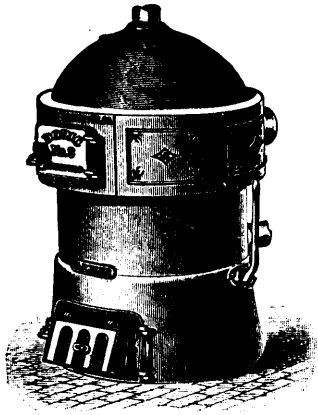
For sale by all Druggists or sent by mail on receipt of price.

WM. R. WARNER & CO.

122 Market St., Philadelphia.

52 Maiden Lane, New York.

197 Randolph St., Chicago



(Complete Boiler.)

Your Winter Comfort

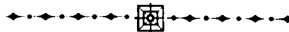
Is a certainty, if you use the

SEAMLESS **DORIC**

H^{OT} WATER BOILER

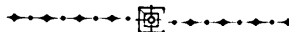
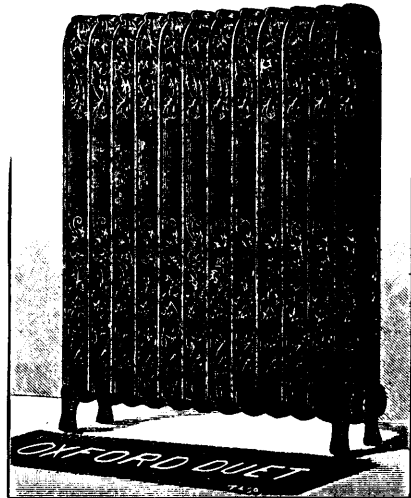
- AND -

OXFORD RADIATORS.



The **BOILERS** are low in price, economical in the use of fuel, and will burn longer without attention than any other heater.

The **RADIATORS** are mechanically correct and artistic in design, with the only perfect joints—iron to iron, no gaskets used. Endorsed by the leading engineers and made in sizes to suit any room of any building. See our Catalogue for full details.



The Gurney Foundry Co., Ltd., Toronto.

A FEW REASONS



why every Doctor should prescribe our

AROMATIC CASCARA

S. & M.

OUR SPECIALTIES:

**Aromatic Cascara
Bitter Cascara
Vitalic Hypophosphites
Galisaya Cordial
Syr. Trifolium Co.
Apodyna**

**Bindschedler's
Phenacetin Phenazone
(Antipyrin)
and Salol.**

1. It is quite palatable.
2. One minim represents one grain of prime three-year old Cascara bark.
3. Its small dose—10 to 30 min. We guarantee that it contains no foreign laxative or cathartic.
4. The price is reasonable and consistent, with purity and accuracy.
5. It is the economical Cascara on the market.

Write Us For Sample Sent by Mail.

Manufactured by

Scott & MacMillan

MANUFACTURING PHARMACISTS

14 and 16 Mincing Lane,

TORONTO, CAN.

Manufacturers
of...

- . . Perfumes
- . . Toilet Waters
- . . Etc., Etc.

Agents
for...

**Andrew Fergens
Toilet and
Medicated Soaps.**



HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM.

DR. MEYERS (M.R.C.S. Eng., L.R.C.P., Lond.) desires to announce to the Profession that he has obtained a large private residence which he has thoroughly furnished with all home comforts, and in which he is prepared to receive a limited number of patients suffering from

DISEASES of the NERVOUS SYSTEM

DR. MEYERS devotes his attention exclusively to the treatment of these diseases, for which he has especially prepared himself by several years' study, both in England and on the Continent. He has trained nurses, a skilled masseuse (Diploma Philadelphia), also all forms of electricity and other appliances which are so necessary for the satisfactory treatment of these cases.

This is the only Institution at present in Canada in which Nervous Diseases only are treated.

For Terms, etc., apply to

CAMPBELL MEYERS, M. D.,

192 Simcoe Street, Toronto.

During Lactation WYETH'S LIQUID MALT EXTRACT is particularly beneficial. It is a most agreeable and valuable nutrient tonic and digestive agent, containing a large amount of nutritious extractive matter and the smallest percentage of alcohol found in any liquid preparation of malt.

1

Medical Opinions upon Wyeth's Malt Extract.

KINGSTON, ONT., Feb. 27, 1895.
"Wyeth's Liquid Malt Extract I think is a very excellent preparation. One great advantage is the pleasant taste."

M. SULLIVAN, M.D., (Senator.)

MESSRS. JOHN WYETH AND BRO.,

"I have used your Liquid Malt Extract, and am highly pleased with it. In cases of malnutrition where malt is indicated its action is satisfactory. Especially during lactation, however, when the strength of the mother is deficient, or the secretion scanty, its effect is highly gratifying. Its reasonable price brings it within the reach of all."

A. A. HENDERSON, M.D., Ottawa.

ST. ANNE DE LA PERADE, Nov. 27, 1895.
"I cannot recommend too highly Wyeth's Liquid Malt Extract in convalescence from puerperal fevers, in fact it is the only tonic I find good."

FRS. A. MARCOTTE, M.D.

DR. J. LESPERANCE, St. Denis St., Montreal, tells us that he can express no higher opinion for Wyeth's Extract of Malt than to say he has at present some sixty patients using it.

"In Wyeth's Extract of Malt I believe you have produced an article the want of which was felt and that it will prove a great benefit for convalescents, and those of weak digestive powers. I will gladly recommend it in suitable cases."

E. H. T., M.D., Montreal.

DR. A. R. GORDON, Toronto, writes,—“Messrs. John Wyeth and Bro.,—I write you regarding your Liquid Malt Extract and congratulate you upon its merits, and may say that during the past year I have ordered in the neighborhood of 30 doz. of same, besides my prescriptions. Have been highly satisfied with its effects.”

DR. C. R. CHURCH, Ottawa, writes,—“I have employed Wyeth's Liquid Malt Extract in my practice for some time past, and am in every way satisfied that it is a most valuable assistant to the processes of digestion. Its taste is agreeable, and is in my opinion a nutritive tonic.”

J. H. DUNCAN, M.B., Chatham, Ont., writes,—“It affords me great pleasure to say that ever since its introduction I have prescribed Wyeth's Malt Extract with gratifying results. I believe it to be a most valuable and reliable aid and stimulant to the processes of digestion and assimilation, in addition to its purely nutrient qualities, which from analysis given must be of a high order.”

DR. DEMARTIGNY, St. Denis St., Montreal, also tells us that he has some thirty patients using Wyeth's Malt Extract, and recommends it very highly.

“I have often had much difficulty in getting patients to take the semi-solid Extracts of Malt, and your preparation, Wyeth's Liquid Malt Extract, I think will fill a long felt want, and I see a very large field for its use.”

F. WAYLAND CAMPBELL, M.A., M.D., L.R.C.P., London.

DR. F. A. MARCOTTE, of St. Anne, de la Perade, also writes,—“I prescribed Wyeth's Malt Extract as a tonic in great feebleness produced by laborious accouchment with excellent results, and I can recommend it above all as a tonic to augment lactal secretions.”

DAVIS & LAWRENCE CO., (Ltd.) Montreal,

General Agents in Canada for JOHN WYETH & BRO.

The Canada Lancet.

VOL. XXIX] TORONTO, SEPTEMBER, 1896.

[No. 1.

THE CAUSES OF MENTAL IMPAIRMENT IN CHILDREN.

BY DR. J. MADISON TAYLOR, A.M., M.D., OF PHILADELPHIA.

SENSORIAL DEFECTS. DEFECTIVE ORGANS AND FUNCTIONS.

Faulty habits of thought and action, early established by accidental conditions, mould character and influence mental growth. Whether the effect will fall upon the individual only, or be transmissible, may fail to appear, but the presumption is that it does pass on. For example, a child of an active, restless brain exhibits amusing capacities in extravagant words and thoughts, and encouraged to cultivate this, forms the habit of using loose comments, inexact remarks merely of amiable hyperbole or acid derogation, misrepresentations, additions, and embellishments of simple facts, too often about people, colored by their own temporary estimate of these, a growing imagination, in short, lies and falsifications. Let this continue, and the outcome is moral astigmatism, growing into possibly creative fancies, and poetic or fictional scribbling, more probably a moral prevert or worse. A healthy contact with frank critics of a similar age and walk in life, plus a fair amount of good sense, and this facility may prove a boon. An atmosphere of silly adulation on one of shallow parts, and the resultant may be merely a blatant ass. Let these qualities arise in one of small moral fibre, or of selfish vanity, and a dangerous enemy to the community is fostered. At all events the character sustains thereby a warping which is permanent.

Take another illustration, suggested to me by a gentleman himself, an acutely sensitive sufferer from similar misfortune. Suppose a child to be endowed with normal brain and mind, but with perhaps less than usual audacity, and yet of impaired power of articulation as from some anatomic defect, cleft palate, or such like fault, or more commonly the disorder of stammering. As companions learn his difficulty in giving utterance to spontaneous thoughts, they take advantage of this in various ways, not aggressively it may be, but slowness to speak is recognized as a bar to many activities, both in the value of thought and physical movements. This child has certain ideas which should be promptly uttered to produce their best effects. They should come out clear and precise, just as the mind formed them, and in all this they fail. A second attempt is made to use other words, easier to phonate, or of shorter or simpler sentence construction, but of probably less vigor than first conceived. Even a

third time failure may result from attempts to express himself, and speedily the child makes less effort to speak at all. Inability to enunciate checks natural frankness and candor, and healthy boldness. Gradually such a sufferer shrinks from competitions in games which involve generally a good use of voice as well as of muscle. Soon the conviction grows that he is a defect, an undeveloped creature set apart from his fellows, not entirely of their company, and instead of the bold, vigorous stand for which his mind and limbs amply fit him, he drops into the background more or less. His character and mind are checked in growth; he fails to become what he should, no matter how well he may succeed. Of course there is precedent for stammerers attaining great success, *vide* Demosthenes, but there must burn within that unconquerable fire of genius, admitted by a rare possession.*

Perhaps the most potent factor among sensorial defects is eye strain. Our distinguished fellow, Dr. George M. Gould, promised me a summary on this subject from his forthcoming book, but is omitted here.

SURGICAL CAUSES.

In a personal letter in reply to my queries, Dr. DeForest Willard says:

"In my opinion the chief surgical causes producing mental enfeeblement in children are injuries to the brain during birth by the application of forceps, the traumatism of the brain substance and of the meninges with resultant inflammation, and inflammatory thickening producing changes which are frequently followed by both mental and muscular deficiency. Unfortunately a distinct fracture or definite depression is only occasionally capable of diagnostic demonstration; even localization symptoms in later years are only rarely demonstrable. When the evidences are definite, however, trephining is certainly indicated, and the same is true in regard to traumatism inflicted after birth.

"In respect to reflex irritation from phimosis, while I believe that muscular irregularities frequently result, yet I do not think that they produce a condition of mental deficiency save in rare cases. The same is true, too, of masturbation, although any drain upon the nervous system may assist in producing a low grade of mental as well as of muscular tonicity."

Dr. G. Hudson Makuen, whose experience in treating speech defects is unusually large, in a personal letter, gives me the following:

"We cannot over-estimate the value of speech as a factor in the mental development of children. Some form of expression seems to be necessary to the fullest mental activity and growth. It may be conceded that thought precedes expression, but certain it is that the one not only follows hard upon but actually depends upon the other for its development. Deprive a child of all forms of expression and you remove the greatest incentive to mental action. The chief mode of expression is speech, and if you would make possible the fullest mental activity give great care to the cultivation of easy, natural speech. Look well after any obstruction

* Stammering troubled Æsop, Virgil, Demosthenes, Alcibiades, Erasmus, Cato of Utica, and Charles V. (Arthur McDonald) abnormal man, p. 151.

to speech development in the vocal and respiratory organs. The slightest thickening of the nasal mucosa or of the pharyngeal or faucial tonsils greatly interferes with the formation of natural speech and thus indirectly makes an impress on the mind, the magnitude of which is out of all proportion to the cause of the trouble. In children with adenoid growths (in the vault of the pharynx) the 'vacant stare,' which is a fairly accurate picture of the vacant mind within, is due not more to faulty breathing than to its concomitant faulty speech. Enlarged faucial tonsils which may interfere very little with respiration give the same facial characteristics, and I have seen cases of defective speech due to tongue-tie and other cases entirely independent of adenoid thickening in which arrested mental development was reflected in the continuance in exactly the same manner.*

Dr. Harrison Allen, in a personal letter, gives me the facts concerning the effects of naso-pharyngeal obstruction: "Clinging to the roof of the upper throat passage, or to its posterior wall, there is found in every individual a number of small seed-like masses, which have received the name of the lymphoid or adenoid bodies. We know little or nothing of the nature of these growths or the purposes they serve in the economy. Not infrequently they will be found large enough to interfere with comfort and health. If they prevent air from passing through the nose into the throat, while the mouth is closed, the development of the body is often retarded and natural functions perverted. The chest becomes deformed, the upper ribs being widely separated, while the lower ribs lie close together. In weaklings, in whom the bones are lacking in lime-salts, the deformation of the chest is more marked than in sturdy subjects whose bones are normally developed. The upper jaw is narrowed from side to side, highly arched and, as a rule, the front teeth irregularly disposed. Occasionally deafness exists. The power of attention, the tenacity of the memory, the control of the will, and the emotions are all weakened. The disposition is apt to be sullen and occasionally intractable. The mouth is continually open and the face has a lack-lustre expression, the countenance has a pasty look, the general appearance of the child is one lacking in intelligence. In some instances, indeed, the child is actually mentally defective.

"If by any chance a child is already on the border line between normal and the abnormal intellection (and is a sufferer from adenoid overgrowth) we can well understand how the condition named may push it on the wrong side of the line, and keep it there.

"No rule exists by which the physician can determine the exact size or consistence of the growth; a small mass in a small naso-pharynx may be expected to excite more distress than does a larger and more vascular growth in a capacious naso-pharynx.

"When the growth is removed the symptoms named often disappear as if by magic. I say often, because it is not uniformly the case. Sometimes we observe a child whose general nutrition is impaired, who has inherited one of the numerous features belonging to an impaired constitution, and who happens, with the other evils, to have an obstructive adenoid

* A remarkable case is reported by Prof. Forbes, *Med. News*, Sept. 2, 1893.

growth. It is not reasonable to suppose that the removal of the growth would have any effect upon taints by inheritance. Yet in the many cases of the kind I have studied I have notes of three cases only when the operation was not followed by relief.

“Not infrequently in young people from fifteen to twenty years of age, (especially in girls who are growing rapidly) adenoid growths, which are not large enough to obstruct, will prove to be the cause of mischief. If catarrh be present, an otorrhea or deafness established, or an irritative cough and asthma exist, treatment is futile so long as these small adenoid growths are unmolested.

“Adenoid tissue is in close association with the tonsils and the lymph bodies at the base of the tongue. Early in life it is rare to find a large adenoid and small tonsil, therefore, we conclude that the two conditions are in some way associate. In consequence it is desirable always in children with large tonsils to be sure that adenoid growth may not be co-existent, or the treatment of the tonsil may prove quite ineffective to give relief. The basi-lingual bodies rarely attract attention at the time that the adenoid growths and tonsils are most active.”

Dr. James K. Young, at my request, summarises the causes which impair mental development in children from the standpoint of the orthopedist, thus: “Among the pathologic causes which impair mental development in children, in my experience, a large number may be included under the following:

- I. Congenital syphilis.
- II. Cerebral palsies.
- III. Rickets.

“I. Congenital syphilis particularly impairs development of the encephalon by premature co-ossification of the cranial sutures. In severe cases this lesion produces microcephalus, but in milder forms there is simply premature closure of the fontanelles. Between these two forms every degree of impaired mental development may exist.

“II. Cerebral palsies. The number of cases of mental impairment from cerebral palsies is very large. They are not to be confounded with infantile spinal paralysis, in which there is no impairment of the mental development present. There may be a hemiplegia, a bilateral hemiplegia (diplegia), or a paraplegia. The hemiplegic cases are usually due to a hemilateral lesion of the cerebrum, either a sclerosis, an atrophy or pencephalus. The diplegic cases are due to the same causes, but the lesion is usually bilateral. The paraplegic cases are usually the remains of a slight cerebral lesion which has disappeared, but which has left a mild descending degeneration of the cord. In all these cerebral palsies there is more or less impairment of mental development.

“III. Rickets. In the majority of cases of rickets there is an impairment of mental development which apparently disappears sooner or later, as the child is relieved of its impaired nutrition; but the shorter stature, the changes in the cranial bones, and the tendency to excessive perspiration, which remains throughout life in some of these cases, is associated with slight impairment of mental development. Hydrocephalus is so rare that it may be excluded as a cause of impaired mental development in children.

"The impairment of mental development in cerebral palsies varies from complete idiocy to slight backwardness. In the paraplegic cases genital irritation, priapism, masturbation and incontinence of urine, is sometimes present and might easily be mistaken for cause rather than effect were it not for history of the case."

The paranoiac and the high grade imbecile enjoy a wide liberty of action, rarely suspected by their families of being aught but folk of "peculiarities" (as in a large family of our acquaintance) is much given to marriage, and their offspring are worse than they. The victim of epilepsy which may be under fair control, and otherwise of good report, not seldom weds a nervous, hysterical person, and of them come degenerate offspring. The deaf mute, grafted into doubtful stock, has produced idiocy and imbecility in second and third generations. Syphilis is conceded to predispose to seventeen per cent. of idiots. The intermarriage of relations is always a peril, seeing that almost no stock is without taint or enfeeblement. Lowered health in one or both parents; maternal impressions and acute disease during pregnancy; senility of a father, one or all throw a great strain upon organizations of hereditary bias of different kinds and degrees.

A clear history or clinical picture of syphilis may explain a certain group of juvenile dementias after four or five years old, before that the status of the mind can scarcely be rated.*

Febrile and post febrile states are responsible for many maniacs, classified by Nasse into those of the fever itself of protracted continuance of fever and of convalescence.

Spitzka (Keating's Encyclopedia) declares that during convalescence the more benign forms occur, and are common in adults, the first two of more frequent occurrence in children.

Those febrile processes bearing the burden of the largest responsibility in causing insanities are typhoid fever, scarlatina, measles, rheumatism and diphtheria.

The so-called reflex insanities are in truth probably only instances of exciting causes disturbing or destroying unstable mental equilibrium.

Spitzka also calls attention to a progressive form of hysterical insanity in girls about the time of puberty, which begins as dyspeptic states, shades off into aversion to food, with delusions about eating, and from this into other disorders of over-consciousness. Thus often are the hysterical insanities seen to begin in actual disease processes, often slight, and by gradual increments, colored by environmental influences, pass into serious mental disorders.

A very important instrumental cause of mind trouble is neurasthenia, the lowering of central energies by various forms of exhaustion, exhibiting widely varying states of neurosis, till the normal resistances are fatally impaired and manifested in the individual, and even more so in the offspring.

Depressing influences are especially hurtful to children, as deprivation of proper home comforts with harsh treatment, irrational punishment,

*All this question of interlacing causes is treated of in "The Insane Disorder of Childhood," *Journal Pediatrics*, by J. Madison Taylor, Feb., 1884.

brutal scoldings or cruelties can crush out budding intelligence, and do worse in causing the child to stem the current of abuses by cunning, subtleties, lies and thefts. Then are varieties of acquired imbecility brought about; but this is more usually moral in tone, and thence is the transition affected to moral imbecility and criminality.* The impressionable clay is fashioned to a vessel of evil, or if not so bad then wholesome tendencies fail to mature, and we have children of stunted minds and character who are reparable in very moderate degree.

The nutritive defects alone produce incalculable harm, even admitting that no physical bias coexists. Mind is absolutely conditional upon brain competence. Nutritional diseases, as rickets, tuberculosis, etc., are familiar backgrounds for all nervous diseases. Organic defects, as of kidney, heart, lungs, etc., are not shown to be of so grave an import as in the adult, but when present are occasionally responsible for manias. Excess of heat, either of fevers or sun or low temperatures long continued, exert a more recognizable effect.

City life may be accused of an immense deal of damage to germinating minds. The perpetual round of stimulants and excitements to the child, which, as Peterson says, "is a bundle of nerves and centres, and reflexes in a state of great activity, prepared to receive, store up and re-energize a world full of new impressions suddenly thrust upon it."

Other degenerative influences are the infectious diseases, depressing circumstances, want, exposure, deprivation of suitable hygiene, toxic inflexions, the use of opium, tobacco, etc.; the excitement of city life fiddling upon these over-sensitive nerves and reflexes with insufficient opportunities for repose and quiet; hurry of all kinds, hard, continuous labor, united to want and bad homes, vicious companions, especially parents who terrify and oppress.

Traumatism is an exciting cause of great rarity. Injuries to the unborn child by attempted abortion is, as Ireland remarks, "a probable cause of unknowable extent. Those received during protracted labor are appreciated, but not understood."† Sometimes the effect of the trauma soon pass away; at others they last as permanent crippling, or, worse, motor explosions, epilepsies, recurrent insanities, etc.

* D pine says the two great conditions for crime are moral insensibility and perversity, with two great accessory moral anomalies—impudence and lack of forethought. Criminals rarely express remorse, the criminal insane never. Clouston, quoting this, adds that the most characteristic feature of the criminal insane and moral imbecile is inconsistency; they are stupid and careless, or cunning and hypochondriacal.

† An inquiry into the causes producing cerebral injuries in the new-born. J. Madison Taylor, *Annals, Gynecol. and Pediatrics*, May, 1892.

(To be Continued.)

TREATMENT OF WARTS.—The most effective cure is from Fowler's solution, two drops three times daily, (in children half drop three times daily) slightly increasing the dose each week. The warts crumble to pieces and disappear, especially when washing and drying the hands, so that the skin looks normal after two or three weeks. Relapses have never been observed.—*Medical Herald*.

OBSERVATIONS ON ANTISEPTIC THERAPY.

BY O. McCULLOUGH, B.A., M.D., ERIN, ONT.

If Dr. Lusk's remarks apply to normal or natural labor alone, no objection can be raised, when he says that weak antiseptic solutions cannot destroy the streptococcus, and that very strong ones kill the tissues as well. But when the poison is supposed to have gained admission as indicated by the symptoms of septicaemia, it seems rational to attack it locally even at the expense of superficial tissue destruction. It can do no more than remove the mucous membrane, and this is renewed subsequent to menstruation after the old lining has undergone fatty degeneration. In fact the mucous membrane is physiologically destroyed and renewed alternately from the advent to menstruation until the menopause. These degenerative changes affect the body of the uterus but not the cervix. Pregnancy interrupts this fatty change until term, and in involution the old lining is cast away. So a strong uterine douche, if it is not poisonous, cannot be an objection because it destroys something which nature is destroying anyway. Bichloride and iodine solutions bear a good report clinically. In post-partum hemorrhage, the secondary form of which may occur sometime in the practice of the most careful physicians, these douches must be useful. The result is the same whether the cause of hemorrhage be retention of portions of the membranes or placenta, inertia, a patent state of the uterine sinuses, sub-involution, fibroids, polypi, malignancy, the rupture of varicose veins, cervical laceration, the hemorrhagic diathesis or any other of the many conditions known to be causative, and their name is legion. I attended a case of labor not long ago in which the patient had a comparatively easy confinement, although the pains were not equal to the average. For the grinding pains of her first stage I gave the syrup of chloral in divided doses to which she soon responded, although it was not markedly rigid. Moderate pressure on the abdomen as a *vis a tergo* with the natural assistance of the uterine pains soon completed the second stage, while the third stage followed after the usual interval. I always make it a habit to twist the partly expelled placenta and membranes round the finger to prevent possible retention of fragments, and this I did in the present instance. The uterus hardened in the usual way and the patient's pulse was considerably below one hundred beats. It used no douches, but I used a weak sublimate solution to purify my own hands. There was no rise of temperature at any time, but the mammary secretion was delayed, and when it did appear it was small in amount. On the sixth day the patient sat up in bed to entertain some friends who had called to see her, and in deference to their request swallowed some brandy. Soon she felt a trickling in the passages, continuous but not excessive, and at once sent for me. When I arrived I found a quickened pulse and considerable blood with no clotting. When small amounts of blood pass through the vagina, as in menstruation, the normal acid secretion prevents clotting. But blood retained in the uterus for any

length of time becomes clotted, or when the hemorrhage is excessive we must expect to find clots. Thinking this might be a disturbance of the lochia, which after nervous excitement may become profuse and quite red, I had the feather mattress removed, leaving her a hard one which was below the other, and not permitting her to leave the horizontal position. I ordered the amount of bed covering to be reduced, raised the foot of the bed slightly, and enjoined a large supply of good ventilation, as the room was quite too warm. I ordered a cool but nourishing diet as the woman was anæmic, recommended cool cloths to the hypogastrium, prescribed ergot and insisted on absolute quietness. This was Thursday evening. On Sunday morning she again called me saying that the bleeding had recurred. I inspected the external genital organs, and examined the cervix and so through a bivalve speculum. There was no laceration nor was it more patulous than one would expect. I thought it would cease. I gave a hot vaginal douche and ordered a continuance of the treatment described. The patient seemed nervous, but there was no rise of temperature, and no offensive odor in the discharge. I ordered the bowels to be kept open so that there might be no cause of congestion in a loaded rectum.

The bladder was regularly emptied all the while in the natural way. The oozing stopped till Monday night and then I saw there was no use of temporizing, so I prepared a solution of boiled water 120° and sublimate (1-10,000). With a catheter and Higginson's syringe I washed out the uterus until the water returned clear. There were some loose clots, but the discharge was perfectly sweet. With a small firm sponge attached to long blunt forceps, I scrubbed out the uterine cavity with antiseptic boiled water, slightly rotating the forceps so as to bring the sponge into contact with the whole uterine wall. Keeping my left forefinger at the os as a guide, I withdrew the sponge several times to dip it into the antiseptic solution, and saw what appeared to be small portions of membrane on the sponge. The last two times I applied it there was nothing visible, so I concluded that was all. I then dipped the sponge into a moderate strength of chloride of iron solution, and completed the toilet of the uterus. The bleeding did not return and the lochia itself ceased for a day or so. A soft, open-meshed sponge should not be used in these cases, as portions of it are liable to become detached. I followed Playfair's teaching and found it satisfactory. Had the bleeding been excessive, I would have mopped out the uterus at the first; I believe I did what was best under the circumstances. The small portions of the membrane-like substance were very thin, and may have been deciduous, or foetal for that matter. I did not examine them particularly as it was lamp-light, and the clinical side was all important just then.

The woman gave me her history. She said all her children were born alive and healthy, but three of them perished subsequently from diarrhœa and pneumonia. She told me that a year previously she "had a miscarriage," during which she lost a profuse quantity of blood, and was found by her medical attendant in an unconscious state.

She was a long time improving, she said, so I concluded that her present anæmic condition was due in a measure to the accident described. Sub-involution or atony of the uterus may follow such accidents, and be

primary causes of future hemorrhage, especially when the parts are congested as in menstruation and pregnancy. She suffered, too, from goitre which we find frequently associated with anæmia. In all hemorrhage the indication is to arrest the bleeding at once by methods that have stood the test. Physical examination is necessary, for the cause is generally immediate. In the cases where the cause is a remote one, as in purpura and kindred diseases, the diathesis must be overcome by medicine if possible.

Concluding the case, I would say that the lacteal secretion was not sufficient for the child, but between the mother's milk on the one hand and judicious artificial feeding on the other, she grew fat and healthy, and the mother was soon able to attend to the "economics" of her house. There are such cases, or at least similar ones, in the life-time of every practitioner, and it is rational to suppose that antisepsis ensures at least a cleanliness in method and application not otherwise obtainable. But as a routine in normal practice, douches are not necessary. Everyone must be guided to a certain extent by his own judgment, for the text-books fail us sometimes, and we can all say with Professor Lusk that we "are ready to change our opinion to-morrow if new observations should make a change necessary." Every one should read Dr. Lusk's suggestions on such an important subject. Antisepsis I think cannot be carried to excess in surgery; as the conditions are different, they are accidental and therefore always pathological. But labor is in most cases natural and for that reason physiological. Let the patient, physician, nurse and attendants observe the strictest hygiene, and then if septicaemia persists, its perpetuation cannot be laid at the doors of the medical men.

Modern surgery, magnificent and life-saving as it is, has been too frequently sacrificed to a rash specialism that, ignorant of general principles, has unsexed the victims of hysteria in the false hope that nature has made mistakes somewhere.

In the surgery of the appendix too it is just as necessary to know *when* to operate as it is to know *how* to operate. No wonder that Goodell and McGuire have called a halt in these departments of practice.

Professor Lusk of New York has come to the rescue of our sisters at this juncture, and his timely words will not soon be forgotten by the conscientious profession of the civilized world.

Dr. Cantrell believes that, as a pus destroyer, no drug will take the place of ichthyol; therefore it is indicated in pustular acne, as well as in cases of furuncles and carbuncles, if seen early.—*Phil. Polyclinic.*

THE OLDEST PRESCRIPTION. A French medical paper prints what is believed to be the oldest known medical recipe. It is a tonic for the hair and its date is 4,000 B. C. It was prepared for an Egyptian queen, and required dogs' paws and asses' hoofs to be boiled with dates in oil. The modern hair restorer requires asses' heads.—*Medical Record.*

SURGERY.

IN CHARGE OF

GEO. A. BINGHAM, M.B.,

Surgeon Out-door Department Toronto General Hospital; Surgeon to the Hospital for Sick Children. 68 Isabella Street.

COLLES' FRACTURE.

BY A. T. CLARK, M.D., GREENVILLE, PA.

My subject is not a new one. It is old, and I fear I shall not be able to make it interesting; but I feel that no apology is necessary. So long as the treatment of fracture of the lower end of the radius is as unsatisfactory as it is to-day, both to ourselves and our patients, it is necessary that we give the subject more study; more frequently interchange views. If you will bear with me a few minutes, in return I will promise that the everlasting microbe shall not enter in; that the bacterial army and that of its deadly enemy, the leucocyte, shall not even skirmish here.

I propose to treat only of the simple fracture. If compound or comminuted, each case must depend upon itself; upon its own merits. With the simple fracture there is a marked unanimity—resemblance—between the cases. We recognize the injury at sight; even across a room. As far as my experience goes, nineteen out of every twenty cases are simple fractures. With this most common fracture and of so important a member, it is not creditable to our profession that the results are so unsatisfactory if it is possible to do better.

The fracture is unique; it has not a parallel in surgery. No matter how perfect a knowledge of fractures in general one may attain, he is not prepared to either diagnosticate or treat this one without special study. Of the three cardinal symptoms of fracture, deformity, increased motion, crepitus, we have but one, deformity. Motion at the wrist-joint is lost and there is no motion at the seat of fracture. Crepitus, if we get it at all, only occurs when the fracture is reduced. As a rule, no visible callus forms in healing. It is no wonder that our fathers mistook the injury for dislocation of the wrist-joint. It is not complimentary to the profession that it is sometimes done yet.

The fracture of any bone is a serious injury, and we shall probably never be able to attain quite the results we may wish in their treatment. In the one under consideration, too, there are a few conditions that render its treatment more than ordinarily difficult. The fracture is very close to the radial articulation with the scaphoid and semilunar bones. If it is within seven-eighths of the lower end of the radius, it is through the sigmoid cavity for the articulation of the head of the ulna—a very important articulation. Notwithstanding these difficulties, it seems to me that we can and ought to obtain better results. Wherein do we fail?

Nearly twenty years ago, when the American Medical Association met in this city, a very instructive paper was read before the surgical section on the subject of Colles' fracture. The discussion which followed was, if possible, more instructive, and was participated in by a number of eminent men; notably among whom were Drs. Moore, of this city and Rochester, and Frank H. Hamilton, of New York. If there are any here who listened to that discussion they will remember the enthusiasm of Dr. Moore as he described his three cases, which he designated as his diamond, his gold and his silver, naming them thus from the value he thought they possessed as a means of giving us instructions in this fracture. But the one point I wish to refer to here, is his method of dressing the fracture: simply an adhesive strap around the wrist over a compress placed under the head of the ulna, and the forearm supported in a sling extending from the elbow to the wrist, leaving the hand hanging over. The weight of the hand thus placed, he believed, prevented the lower fragment from sliding outward. Dr. Hamilton told us that he, himself, had received the injury, had reduced it himself, and operated for harelip four days afterwards. It may not be necessary, to-day, to offer evidence to show that there is very little tendency to displacement in this fracture, but so long as splints are being devised, no matter how awkward, if their inventors have the correction of that displacement in view, and as long as we frequently find the fracture dressed with apparatus as heavy as the forearm, it seems to me to be justifiable. If Dr. Moore's simple drapery was sufficient, and if Dr. Hamilton was willing to run the risk of displacement in his own wrist, to perform an operation four days after the injury, they certainly did not believe there was much danger of the fragments moving when they had been adjusted. Then, if we remember how difficult it is to move the fragments, one upon another, when we have the fracture nearly reduced and are not quite satisfied, we shall join with the great majority of the profession in the opinion that the fragments are not easily displaced when once placed in their proper position.

The trouble is that we do not properly reduce the fracture; set the broken bones. For once the populace are right with regard to our work. "It wasn't set right." A perfect coaptation of the fragments is more necessary in this than many other fractures. The bones are so thinly covered with soft tissues, that a little deviation in position is unsightly and is always in sight. What is of more consequence, a little deviation on the inner or ulnar side destroys the sigmoid cavity, and the head of the ulna is crowded out of doors, and here is just the place that the want of perfect coaptation is apt to occur. By thus permanently displacing the head of the ulna, the ulnar nerve is infringed upon causing contractions in the ring and little fingers.

When I was a student, surgical anatomy was neglected in our schools. From answers I have received from both young and old graduates, to questions I have put and requests I have made to point out bony landmarks in the living subject, I am led to believe that such teaching is not all that could be desired yet, and that the attainment of the student is not all that should be exacted. When we have all attained such profi-

ciency in this branch of study, to enable us to discern every process, every plane, every landmark perceptible to the sight or touch, to the eye or the finger, and know the tendency of every muscle to displace fragments in fractures, we shall be called to treat them, with less dread, and the results of treatment will be better. He that has accomplished this task has had no play-spell. We are in an era of specialties and specialists; another says: "There is nothing left for the general practitioner but a little space around the umbilicus four inches square." There is still room for another specialist. I, for one, shall hail with pleasure the advent of the bone-setter.

In this particular fracture the muscles have but little tendency to displace the fragments when they have been adjusted; but have we learned, and do we always have in mind the relations of the radius and ulna to each other, and to the surface of the wrist? Do we always remember that the plane of the posterior surface of the radius is not that of the wrist? That the posterior surface of the radius dips toward the head of the ulna at an angle of three, four, or even five degrees. If a straight edge be placed across the posterior surface of my own wrist—not unusually rough—I believe it will be three-eighths of an inch away from the surface of the radius next to the ulna.

Whether or not we have attained that knowledge of the contour of the bones of the wrist necessary, it is certainly a common error to leave the internal side of the lower fragment a little above the normal position. We do not bring this little piece of bone, sometimes an inch long, sometimes an eighth of an inch, quite forward to its place. If we fail to do this, what will be the result? If we only bring the internal portion of this fragment to a level of the posterior surface of the wrist, how will the wrist look, and what will be the disadvantages? Very slight tumefaction of the soft tissue will cover all irregularities when the fracture is first reduced. When we dispense with our dressing, and before absorption has come to our rescue, we will find something like the following: The wrist will be straight, which means a good deal to the laity; but the lower fragment will set diagonally upon the upper. The posterior surface of the wrist will be flat. The head of the ulna seems a little down, forward. Just in proportion to the displacement has the sigmoid cavity been narrowed or destroyed, and the head of the ulna cannot enter its articular cavity; consequently the posterior surface is a little wider than that of its fellow. As the lower fragment sits on the upper in a twist, it juts out a little into the external surface more prominently at that illy defined ridge, which separates the posterior from the external surface. It is to prevent this imaginary sliding out after reduction that so many splints have been devised. Near the centre of the anterior surface is a slight depression amounting to little more than a crease. With the exception of the prominence of the head of the ulna above mentioned, the internal surface is about normal. There may or may not be contractures of the ring and little fingers. So many fractured wrists have I seen that filled the above description, and so sure am I that these conditions depend upon this error or oversight in the reduction of the fracture that I have broken a rule I had always expected to adhere to, to let

others do the writing and volunteer this paper. In self-defense, or to prevent misunderstanding, I wish to say that I am presenting but one of the many errors that have been made in the reduction of this fracture; that I have no general rule for the treatment of all cases; I am not looking for panacea.

When we know just the position into which we wish to place a fragment, our work is plain, straightforward; but it is not always easy to accomplish.

Direct extension—traction—in a line with the radius, will not reduce this fracture. The posterior surface of the lower fragment held back, as it generally is, by the untorn portion of periosteum, peeled up from the lower end of the upper fragment, renders extension alone worse than useless. It tends to tip forward the anterior segment of the lower fragment, but has little tendency to bring it forward to its place. We are frequently advised to extend the hand upon the forearm, and then bring it down again to its place. Others may succeed in that way; I have never been able to. It is, however, in accordance with a very good rule, in the reduction of fractures, to place the limb, as nearly as possible, in the position it assumed when fractured. In that same address of Dr. Hamilton, to which I have before referred (if he were among us he would request me to call it a talk), he told us that he reduced his own fracture. As soon as he arose from the deck of the ferry-boat, on which he had fallen, he saw that he had a "silver fork" fracture, as he called it. He seated himself, and taking the hand of the injured arm in that of the well one, placed the injured wrist across his knee and made traction. He looked and saw he had not brought the fragment quite to its place, drew again with the wrist across his knee and succeeded. In my opinion he placed the limb, possibly from necessity, in the best possible position for reduction. We need not use our knee. By placing our fingers on the anterior surface of the wrist, pressing, with the palm, well up against the ulna to support it, and with our thumb on the dorsal surface of the lower fragment close to the ulna, we can, by making strong traction, in a straight line, force them by strongly flexing the wrist, at the same time making pressure with the thumb. The fragment will slip readily to its place. There is no danger of its going too far. This is my way of reducing, and it has given me satisfaction.

The dressing should be simple. A splint of some kind is absolutely necessary. Twice I have ventured to dress with a simple roller bandage over a heavy layer of cotton. The results were good so far as the fracture was concerned; but in both cases I was told, very patronizingly, by my patients, that they guessed it was not broken much. A splint is necessary to keep in remembrance the fact that they have a fracture. Whatever splint you select *adjust* it. Let me say, parenthetically, that I believe splints have done more harm in fractures, than they ever did good. An anterior splint is as good as any; but the lower end should be as wide as the palm. A hand bent upon the palm longitudinally will be painful. If you doubt it, hold your hand in that position ten minutes.

FAILURE OF CASTRATION TO CAUSE ATROPHY OF THE PROSTATE.

BY CHARLES B. KELSEY, M.D.

The patient, aged sixty-nine, came into the Post-Graduate Hospital suffering greatly with cystitis, due to enlarged prostate. He had been unable to pass water for two or three months, and had been catheterized by his wife every three or five hours. In addition to a very large prostate he had right inguinal hernia and hydrocele on the left. The urine was albuminous. Bassini's operation was done on the right side, and both testicles were removed.

After three weeks of careful catheterization and washing out of the bladder, there being very slight improvement, if any, in his symptoms, a perineal section was made and permanent drainage established.

Two weeks and a half later (five weeks and a half after castration) the patient died of chronic nephritis. As far as could be seen, his death was not in any way hastened by the operative interference.

Following is the report of the pathologist to the hospital, Dr. Brooks :

“NEW YORK, January 31, 1896.

“MY DEAR MR. KELSEY:—The following is a brief report upon the prostate removed from castrated patient.

“REPORT.—Mr. ———, aged sixty-nine. Prostate removed six hours after death. Weight: 45 grams. Dimensions: antero-posterior diameter, $1\frac{1}{2}$ inches; transverse diameter (base), $2\frac{1}{2}$ inches; depth, 1 inch.

“GROSS APPEARANCE.—Color, dark red. Consistence firm, dense, moderately friable. The cut surface mottled and of a dark reddish-gray color; shows numerous delicate, silvery, grayish-white and grayish-red bands, united to form trabeculae of greater or less density and thickness, encircling prominent, irregularly outlined, nodulated foci, which are pale yellowish-white in color and of succulent consistence. These foci vary in size from that of a milletseed to that of a small pea.

“MICROSCOPICAL EXAMINATION.—In teased preparations from the fresh organ, the elements composing the stroma, unstriated muscle, fibrous and elastic tissues appeared to be well preserved and in normal proportion. Individual cells symmetrical; nuclei prominent, well-defined, and distinctly visible; protoplasm clear or faintly granular. Rarely a cell filled with minute droplets of fat was seen; also a few free fat droplets floating in the mounting-fluid (physiological salt solution) surrounding the fragments of tissue. Fibrous elements somewhat in excess of unstriped muscle structure. Most of the epithelial cells from glandular ducts presented no strikingly abnormal alterations. The greater portion of them possessed distinct nuclei and quite clear, nearly homogeneous, protoplasm containing but few granula. A very small number were partly disintegrated, slightly pigmented, and filled with minute fat granules and occa-

sional large oil drops. These disorganized cells were prominent by virtue of their rarity.

"In unstained sections from frozen tissue, the stroma was seen to be composed of well-preserved, tortuously distributed, unstriated muscle fibres, and more or less densely arranged fibrous connective tissue, the latter in excess. The stroma was decidedly greater in amount than glandular structure; though this was not much more pronounced than is frequently the case in the normal prostate, especially in the lateral lobes. On careful search, a few isolated cells containing distinct drops of fat, in minutest division, could now and then be found lying embedded between apparently normal muscle elements. Notwithstanding the presence of fat, the nuclei and general contour of these cells were perfectly retained. Sometimes free fat globules were seen lying between the connective-tissue fibres; but it is believed these could readily have been, and probably were, originated during cutting and mounting of these sections. The epithelia (often in double layers) lining the ducts appeared to be in normal relation to each other; contour uniform and nuclei distinct; protoplasm clear or but slightly granular. Fat was very rarely observed in the glandular structure, and then only in the form of minutest droplets, and confined chiefly to lumina. Occasionally the lumen of a duct, presenting intact lining epithelia resting upon basement membrane, was seen partially or wholly occluded by an amorphous or finely granular substance, enclosing several partially disintegrated cells and a few fat droplets. The great majority of the lumina of the ducts were comparatively free, or showed but slight traces of granular detritus or deposits of other nature. On the whole, the changes observed in the fresh tissues were not sufficiently pronounced to warrant the assumption that atrophic process had, to any great extent, been established.

"Study of frozen sections, hardened in formalin and alcohol, and subsequently stained with Boehmer's hæmatoxylin and borax carmine, revealed even less evidence of atrophic changes. Excluding fat, the description given above under examination of fresh tissue applies here. The best-stained portions of the sections were invariably the epithelial cells lining the tubules—the parts where alterations would most naturally be expected. The only change remarked was a slight increase in the amount of fibrous connective-tissues as compared with the muscular structure. This alteration seemed to be confined to certain areas. In other areas the glandular structure was in excess, the various lobuli being almost in apposition. In some parts the separating partitions were composed almost wholly of muscular tissue. A small number of corpora amylacea were seen.

"H. T. BROOKS."

It will be seen from this very careful examination that neither in gross appearance nor in microscopic structure was there the slightest sign of any atrophic or degenerative change in the prostate gland.—*Med. Record.*

The old, as a rule, bear heat much better than cold. The hot-water bag will, usually, be more comforting to them than the ice coil.

SOME MECHANICAL CAUSES OF INTERFERENCE WITH THE
ACTION OF THE STOMACH AND THEIR
SURGICAL RELIEF.

BY DR. W. J. MAYO, ROCHESTER, MINN.

The author divided his subject into two classes: first, those which act from within the cavity of the stomach, or within its immediate connections, such as a tumor, cicatrix, or a foreign body which may obstruct its inlet or outlet, or prevent its normal muscular action; and, second, those which act from without the stomach, and interfere either by pressure or adhesion, obstructing its inlet or outlet, or fixing some portion of its wall, thus preventing its functions. The history of the case, the physical examination, the distention with air, and the test meal constitute the main diagnostic resources. The diminution or absence of free hydrochloric acid, when taken into consideration with the physical examination and the history, is of some service. The treatment of forms of obstruction due to stenosis, as a result of scar tissue, is exceedingly trying, but some of the less resistant cases, when seen early, can be dilated by means of bougies used through the mouth. If it is impossible to pass a bougie, retrograde dilatation by means of gastrotomy is a rational procedure, and the olive-tipped whalebone bougies are of most value. Gastrotomy for the purpose of retrograde dilatation is perhaps best done by Fenger's oblique left lateral incision through the abdominal walls, which brings this opening more directly in line with the cardiac orifice. Gastrotomy for the removal of foreign bodies is an operation of great efficiency, while gastrotomy for the purpose of feeding is subject to great annoyance in the way of leakage. For temporary purposes the Witzel method is of the greatest benefit, as immediately after removing the tube the fistulous tract closes, while for permanent feeding Frank's spout method is undoubtedly the best. Obstructions at the outlet of the stomach are exceedingly common, and many cases, especially those of pyloric stenosis secondary to ulcer, are too often pronounced malignant without proper examination. For the relief of non-malignant stricture at the pylorus, the Hoenke-Mikulicz pyloro-plastic operation is the one of choice, and is wonderfully well adapted to the average case. The author briefly cited a case in which this operation had been done, and in which the recovery was prompt and the gain in weight remarkable. For inoperable obstruction, such as advanced malignant disease, gastro-enterostomy is the operation of choice. As a result of three of these operations, in which the Murphy button was used by the author, there were two successes and one death. Of the two patients who recovered, one has gained forty pounds up to the present time, which is one and a half years after the operation. The frightful mortality of pylorotomy in malignant disease without reported permanent cures is not encouraging, and the reason for this great mortality lies in the debilitated and starved condition of the patient at the time the operation is resorted to.

As Sunlight is to Darkness

is the condition of the woman who has been relieved from some functional disturbance to her state before relief. Don't you know, Doctor, that there are few cases that pay the physician so well as those of women—and the Doctor that relieves one woman, lays the foundation for many more such cases—all women talk and your patient will tell her friends. ASPAROLINE COMPOUND gives relief in all cases of functional disturbance—Leucorrhœa, Dysmenorrhœa, etc., and in the cases it does not cure it gives relief. We will send you enough ASPAROLINE COMPOUND—free—to treat one case.

DR. BRETON, of Lowell, Mass, says :

“ I wish to inform you of the very satisfactory results obtained from my use of Asparoline. I have put it to the most crucial tests, and in every case it has done more than it was required to do. I recommend it in all cases of dysmenorrhœa.”

FORMULA.	
Parsley Seed	Grs. 30
Black Haw (bark of the root)	“ 60
Asparagus seed	“ 30
Gum Guaiacum	“ 30
Henbane leaves	“ 6
Aromatics	
To each fluid ounce.	

Prepared solely by

HENRY K. WAMPOLE & CO.,

Pharmaceutical Chemists,

PHILADELPHIA, PA.

PHASES OF THE MOON FOR SEPTEMBER.

SUN.	MON.	TUES.	WED.	THURS.	FRI.	SAT.

**A CERTAINTY
IN MEDICINE**

Antikammia

Send your Professional Card for Brochure and Samples to **THE ANTIKAMNIA CHEMICAL CO., St. Louis, Mo., U. S. A.**

B

“ Does not depress the Heart ”

We Have no Hesitation

In stating that as a Tonic, Stimulant and Roborant, WYETH'S BEEF, IRON AND WINE has proven more uniformly beneficial than any combination we have ever known. It is substantially a universal tonic.

In the majority of cases, along with failure of strength, and indeed as one cause of that failure, there is an inability to digest nourishing food. Hence it is very desirable to furnish nourishment in a form acceptable to the stomach, at the same time to excite this organ to do its duty. On the other hand, again, wine stimulus, although needed, is ill borne if given by itself, producing headache, excitement and other symptoms, which may be avoided by the addition of nutritious substance, such as the Essence of Beef. Iron, also, can be taken in this way by the most delicate or sensitive woman or child, to whom it may be inadmissible as usually given.

CONDITIONS in which Physicians recommend

Weyth's Beef, Iron and Wine :

To give Strength after Illness.—For many cases in which there is pallor, weakness, palpitation of the heart, with much nervous disturbance, as, for example, where there has been much loss of blood, or during the recovery from wasting fevers, this article will be found especially adapted. Its peculiar feature is that it combines Nutriment and Stimulus.

To those who Suffer from Weakness it is a Nutritive Tonic, indicated in the treatment of Impaired Appetite, Impoverishment of the Blood, and in all the various forms of General Debility. Prompt results will follow its use in cases of Sudden Exhaustion, arising either from acute or chronic diseases.

To Growing Children—Especially those who are sickly, get great benefit from this preparation. It builds up by giving just the nourishment needed, and in a very palatable form.

To People who are getting Old, who find their strength is not what it used to be, they experience a decided tonic effect from its use as occasion requires.

To Clergymen, Teachers and members of other professions, who suffer from weakness, WYETH'S BEEF, IRON AND WINE is very effectual in restoring strength and tone to the system after the exhaustion produced by over mental exercise.

For Overwork.—Many men and women know that the continuous fatigued feeling they labor under is due to overwork, still they find it impossible just yet to take complete rest. WYETH'S BEEF, IRON AND WINE gives renewed vigor, is stimulating, and at the same time is particularly nourishing.

JOHN WYETH & BRO., DAVIS & LAWRENCE CO., Ltd.,

Manufacturing Chemists, Philadelphia.

General Agents for Canada, Montreal.

Among the external causes of interference with the stomach, adhesions of the pylorus or duodenum to the gall bladder, due to the inflammation excited by gall stones, is not infrequent. The most common cause of external interference with the action of the stomach is adherent omentum. Irreducible omental herniæ of any variety are almost always accompanied by gastric distress, which disappears after the radical cure of the hernia. The author mentioned the case of a man fifty-four years of age, who had suffered for seventeen years from gastric pain and chronic indigestion, and in whom, upon dilatation of the stomach, an old irreducible omental hernia was found. Radical operation on the hernia, with liberation of the omentum, promptly relieved the symptoms.—*Am. Med. Assoc.*

SURGICAL HINTS.

Despite the advances made in latter years in the diagnosis of abdominal troubles, an explanatory laparotomy will be necessitated in a large majority of doubtful cases.

Urethral strictures seldom if ever occur before a lapse of three months after the first gonorrhœal infection. In ninety-nine cases out of one hundred it is nonsense to speak of gleet as being inoffensive; it is a sign-board showing the presence of gonococci, perhaps quiescent, yet able to awaken to their pristine energy, on small provocation.

When preparing the room for an emergency operation in a private dwelling, do not permit sweeping, dusting, or the taking up of rugs or carpets. This only raises dust which will later settle in the wound and probably cause infection. Cover every undisinfected object with a clean sheet or towel. The dismantling of a room may, however, be permitted if several days are to elapse between the preparations and the operation.

If you wish to make a neat scar and avoid the unsightly suture points, you can do so by sewing through the cut edge of skin laterally, so that the strongly-curved needle shall not at any point pierce the epidermis. The continuous suture lends itself most readily to this method, and even the knots at the beginning and end may be completely buried. A pretty girl who has the misfortune to require a cutting operation about the face will be very grateful for anything you can do to minimize the deformity of a cicatrix.

An enlarged *non-syphilitic* lymphatic gland may be safely treated by the ice-bag and internal medication as long as there is no fever and no tenderness. When the gland is chronically enlarged and is *tender* to compression with the fingers, a central pus focus should be suspected, and even a slight daily rise of temperature makes the diagnosis almost certain. Such glands, if they are not adherent by brawny infiltration to the surrounding parts, may be easily removed entire by dissection and the wound may be sewn up. *Do not try* to dissect out a gland which feels firmly fixed by hard, brawny adhesions. Such cases demand free incision and packing. No sutures should be used.

MEDICINE.

IN CHARGE OF

N. A. POWELL, M.D.,

Professor of Medical Jurisprudence, Trinity Medical College ;
Surgeon Out-door Department Toronto General Hospital ; Professor of Principles and
Practice of Surgery, Ontario Medical College for Women. 167 College St.

THE MCINTYRE ELEPHANTIASIS CASE.

BY G. LAIDLAW, M.D., CHICAGO.

In this world of phenomena it is not strange that a physician and surgeon, practising his profession for a number of years, should occasionally meet with pathologic conditions more or less rare, but it is strange that some should meet the most remarkable cases at every turn, so to speak. In this connection I am sure that it is the privilege of very few professional men, outside of very large hospitals, to deal with more extraordinary cases than have come to the notice and care of my much respected friend and colleague, C. J. McIntyre, C.M., M.D. As a partial proof of the foregoing assertions, I take great pleasure in presenting to the reader four different views of a patient whom the doctor has had for several years, together with a few brief remarks upon the history of this particular case and the disease with which the lady is afflicted.

The good-natured, intelligent and respectable woman who so kindly allowed us to divest her of all metallic substance and garments and pose before the searching eye of the camera obscura, that by so doing we might obtain further light in medicine and be able to present to your view these pictures from life, is a native of America, and was born in Wisconsin. She is now 45 years of age and the mother of ten children, to five of whom she has given birth since the disease from which she now suffers began.

Eighteen years ago, while engaged in a laborious task, she sustained an injury of the abdomen, near the umbilicus, which was followed shortly after by chills and vomiting. The cutaneous and subcutaneous tissues of the affected part presented redness, tumefaction and infiltration. In a short time the acute symptoms disappeared, leaving a well marked hypertrophy, which gradually increased until two years later, when the left leg began to be covered with scales and to enlarge somewhat. She was at this time in the fourth month of gestation with her sixth child. The abdominal trouble grew gradually worse, but the leg remained in about the same condition until seven years later, when she fell from a step-ladder and sustained a wound from a rusty nail on the right leg, just above the ankle, where, by reference to Figures 1 and 2, the mark of its point of entrance may still be seen. This accident occurred on July

5th, and on August 15th she was attacked with chills and vomiting. The seat of the wound burned and throbbed and her suffering was great. The symptoms, as she described them, appear to have been those of tubular lymphangitis. At the end of two months from the date of the accident she had recovered from the lymphangitis and, as she remarked to us when relating the history as above, "was ready for more trouble." She did not have long to wait, for in November of the same year she again fell, this time into a register hole, and wounded her left leg, which as we have stated was the one on which the scales appeared two years after the abdominal injury. For a third time she was attacked with chills and vomiting, on the second day after the fall.

Her physician pronounced the case, when he saw it, one of erysipelas. The entire limb from toe to knee was involved, and she was very ill for four months. The tissues never returned to their normal proportions, not even to the size which they were when the accident occurred, but, on the contrary, continued to increase in size, the trouble extending all the while further and further up the limb.

Some time after this, but just how long the patient does not remember, the right leg, which had been injured by the nail, began to enlarge.

We have now passed roughly over the first ten years of the history of this case, giving the story substantially as the patient related it from memory.

Dr. McIntyre began to see the case about this time, and has now been the patient's physician for about eight years, during which time he has



FIGURE 1.



FIGURE 2.

had to deal with indolent, unhealthy and ever-increasing ulcers, the secretions from which have been composed of serum and pus, and very disagreeable to the sense of smell. The epidermis has at times become fissured and cracked; papillomatous excrescences of no mean size, made up of conglomerations of many smaller ones, have appeared, while the lymphatics have exuded lymph in large quantities. When the fissures and ulcers have reached deep-seated nerves Dr. McIntyre has had to assuage the great pain which the patient would experience; and there have appeared at many places, but particularly on the inner aspect of the left leg (seen in Fig. 2), quite large and deep-seated abscesses, calling for evacuation and the institution of proper treatment to prevent septic absorption. Meeting all

indications as they have arisen from time to time, and supporting the patient in a proper manner amid conditions which at times have seemed hopeless, Dr. McIntyre has cared for the patient until now, when the case has assumed an insidious and chronic form. Large areas of vessels have become affected, and such wide-spread obliteration of them has resulted as to block up permanently their flow of lymph, thereby producing an everlasting lymphadema of the affected parts. From the history of the case it would appear that there resulted from the abdominal injury many years ago an ordinary erysipelas or reticular lymphangitis, and that from the invasion of the lymphatic channels at this time the disease dates. Later on we find one leg affected with eczema, the other with a septic wound, and finally, the eczematous one, after an injury, becomes the seat of a traumatic erysipelas. At these three seats

of original attack there have occurred successive attacks of diffuse lymphangitis, each recurrence causing an aggravation of the already bad condition. Thickening and induration of the skin and connective tissue have taken place, the dilatation and multiplication of the blood vessels keeping pace with the general connective tissue hypertrophy, until we have now a case of elephantiasis Arabum which, in some respects at least, is the most wonderful on record. In support of this last remark, I wish to state that it has been made after a careful examination of a great many works on the subject under discussion, among which may be mentioned those of Hebra, Neumann, Kaposi, Ziemssen's Encyclopedia (the volume on Skin Diseases), Crocker, the London *Lancet* since 1878, A. H. Buck's Reference Handbook Medi-



FIGURE 3.

cal Science, Keen and White's American Text-book of Surgery, Hooper's Dictionary, published in New York in 1847 by Harper & Bros., Stephen Smith's Surgery, Dr. Titley in the *Lancet*, Vol. xx; M. Clot-Bey, A. J. Howe, etc. Felkin's case in the *Edinburgh Medical Journal*, 1889, page 779, is the only case I have found which very closely resembles the McIntyre one. In this instance the patient was an Eurasian woman.

In a general way, I may close my remarks regarding this case by saying that the patient is a most hopeful, good-natured and happy woman, who, if it were not for the asthma, with which she has suffered much at times for the last six years, would not complain at all, notwithstanding the fact, that in addition to her terrible state, she has no husband to care for her and is in the most destitute circumstances, with several children still requiring the care that none but a mother can bestow.



FIGURE 4.

By reference to Figs. 2 and 3 a very interesting demonstration of a commencing lymphangiectasis may be seen on the lower part of the abdomen near the line of the groin. This condition is to the lymphatic vessels what dilata-tions and varicosities are to their congeners, the veins, and should the condition here seen, by confluence and ag-gregation, form distinct tumors, we will have what is called lymphan-gioma.

Extending downward from the umbilicus, cor-responding to the linea alba, there is at present a fissure about four inches in length and two and one-half inches in depth (best seen in Fig. 3), the sides of which are in a state of ulceration and dis-charge a disagreeable-smelling mixture of serum, pus and lymph. During the past year the labia majora and minora and clitoris have become involved, but

are not as yet enlarged to any great extent, in fact, there is no chance for any considerable enlargement, for the abdomen as it hangs, or rather protrudes, downward is as stiff and unwieldy as any elephant's belly on earth. To the sense of touch, moreover, there is nothing that I know of which feels more like the hide of an elephant than this does. There is very little feeling in this thick, rough, wrinkly, unctuous and void-of-hair skin. In the edema produced by other diseases and other causes there is pitting on pressure, but no part of this growth pits, even when great pressure is applied. The blood recedes to quite an extent from the point of pressure to return very slowly, indeed, but that is all.

While elephantiasis Arabum, the synonyms of which are pachydermia, Dal fil, Barbadoes leg, Elephantenfuss, mal de Cayenne, etc., may be con-

sidered a pandemic disease, we must consider it when appearing in this climate and from the causes which appear to have been responsible for it in this case, a very sporadic malady. Authors of the present day speak of elephantiasis Græcorum as lepra, and elephantiasis Arabum as simply elephantiasis or pachydermia, it being now certain that the two are distinct. I think that when we have a case like the one under discussion, and springing up in this part of the world from causes similar to those which appear to have been at the bottom of this case, the simple term lymphadema would be the best to employ, reserving the terms elephantiasis Græcorum for the lepra type, and elephantiasis Arabum for those cases found in hot climates near the tropics, particularly in Egypt, on the coast of the Mediterranean, the west coast of Africa, the Antilles (Barbadoes), Brazil, Malabar and parts of India, in all of which sections of the world it is most often met with and where, almost always, the cause of it is the entrance into the blood and lymphatics of the embryo of a nematode worm, the name of which is *filaria sanguinis hominis*, from its discovery in the human blood. For much of our knowledge in regard to this we are indebted to Wucherer, Salisbury, Lewis, Bancroft, Manson, *et al.*

With us in this country the disease probably always appears after chronic or frequently repeated acute inflammations of the blood and lymph vessels or anything which hinders the flow and favors the escape of the lymph in the lymphatics; and whether it be produced by an inflammation of the blood vessels or of the lymphatics themselves, or from external pressure, it matters not, we will have lymphadema, and following it there will be cell-proliferation and consequent increase in the surrounding tissues,

In tropical countries, but particularly on the Guinea Coast of Africa, the home of the *filaria sanguinis hominis*, every native into whose lymphatics the *filaria* gains entrance is not effected with elephantiasis. In some it produces chyluria, and in some it does not appear to affect the health at all. This fact, therefore, goes to prove that there it not in this parasitic worm, *per se*, any special poison, the presence of which is necessary in order that either chyluria or elephantiasis may exist. For, unless the parasites block, by their presence, the lymph channels, there will not be chyluria; and unless they develop in sufficient numbers to produce stagnation in the lymph vessels, there will not be, from them at least, an elephantiasis. It is, therefore, apparent that it is not necessary that we should have in this country, in order to produce genuine cases of chyluria or elephantiasis, the worm which Manson has so well studied for us, and we do not believe that the *filaria sanguinis hominis* had any part in the cause of the McIntyre case which we have just reported.

Manson says that this parasite resembles a delicate thread of catgut, animated and wriggling; and W. Essex Wynter tells us that the female has a diameter of about 1-100 of an inch and a length of 3 to 3½ inches. As yet no perfect specimen of the male has been found. The mouth is circular, without papillæ; there is a narrowing at the neck, and the tail is bluntly pointed. The parent worm is necessarily only found during operations involving the affected tissues, or in autopsies. On the other hand, the embryos occur in immense numbers and are readily found in

blood obtained by pricking the skin. They appear as active organisms, each being contained within a delicate sheath which projects slightly at one or the other end of the worm. Its length is about 1-90 of an inch and its diameter 1-3200.

Dr. Manson obtained ova consisting of oval bodies 1-500 by 1-750 of an inch. These are too wide to traverse the channels of the lymphatics and consequently become impacted and thus give rise to the conditions of elephantiasis and chyluria.

The mosquito plays a part in the spread of this disease in hot climates. Dr. Stephen Mackenzie's experiments showed that the embryos only occur in the cutaneous vessels while the patient is asleep, whether by night or day. As to what becomes of them during the period of activity of the patient nothing certain is known. During sleep, however, while the filaria embryos circulate in the blood of the sleeper the mosquito fills himself with the infected fluid and flies to some stagnant pool of water, his natural haunt, upon the surface of which he drops to die. The embryos of the filaria contained within the blood are thus set free and become ready to enter the circulation of the next thirsty mortal who drinks the water.

INTESTINAL FERMENTATION.

BY J. H. KELLOGG, M.D.

While much attention has been given during the last twelve years to the chemistry of digestion, comparatively little has been done in the study of the bacteria of the stomach in relation to practical therapeutics. In this paper some conclusions are presented which are drawn from a careful comparative bacteriological and chemical study of the stomach fluid in three hundred and seventy-seven cases. The information sought by the mode of examination adopted was:—(1) The number of microbes per cubic centimetre of stomach fluid; (2) the presence or absence of gelatin-liquefying bacteria; (3) the presence or absence of gas-producing bacteria; (4) the presence or absence of acid-forming bacteria; (5) the toxicity of the products of bacterial activity in the stomach fluid.

Within the past year three hundred and seventy-seven stomach fluids had been examined from more than three hundred and fifty persons. Of the fluids examined, one hundred and ninety-one were found to be absolutely sterile, while sixty-seven contained less than fifty bacteria per cubic centimetre, a number so small as to be considered accidental, so that these also could be regarded as sterile; while one hundred and two contained bacteria from a few hundred to more than two million per cubic centimetre. I was not surprised to find large numbers of bacteria, but was considerably surprised to find so large a number of perfectly sterile stomach fluids, especially since Cadeac and Bournay have recently asserted that the stomach and intestinal fluids are not destructive of micro-organisms as was formerly supposed, and since the assertion is commonly made by bacteriologists and physiologists that bacteria are not only present in the alimentary canal but are useful in the digestive process.

The fact that no bacteria whatever were found at the end of the first hour of digestion in 50.8 per cent. of three hundred and seventy-seven stomach fluids examined, seemed to be all the evidence required to demonstrate the proposition that the normal stomach is able to destroy those microbes which accidentally enter it through the mouth and nose, and that microbes play no part in normal stomach digestion. Kürhoff and Wagner and others were quoted for further confirmation of this view.

The method of chemical examination employed by me is based chiefly upon that of Hayem and Winter. In comparing the results of bacteriological examination with the results of chemical examination, I have carefully noted the relation of bacteria to: (1) the calculated acidity, which represented the combined value of free hydrochloric acid and the combined chlorines diminished by the fatty acids present; (2) the acidity; (3) the free hydrochloric acid; (4) the combined chlorine; (5) the coefficient of starch digestion; (6) the co-efficient of salivary secretion; (7) the co-efficients of chlorine liberation; (7) the co-efficient of absorption.

The summary was as follows:—Of the one hundred and ninety-one sterile cases, eighty-three were cases of hyperpepsia, eighty of hypopepsia, and in twenty-eight the amount of chlorine eliminated was normal. Of the eighty-three cases of hyperpepsia, combined chlorine was in excess, and free hydrochloric acid was normal, or in excess, in fifty-five cases; in twelve cases free hydrochloric acid was deficient, and in one it was absent. Combined chlorine was deficient, or less than 1.55 milligrammes per hundred cubic centimetres in sixteen cases. Of the eighty cases of hypopepsia, hydrochloric acid was deficient in sixty-eight, and normal, or in excess in quantity, in twelve. It thus appeared that a sterile condition of the stomach fluid might exist in hypopepsia, as well as hyperpepsia, and it was, indeed, a somewhat surprising fact that in forty-two per cent. of the sterile cases hypopepsia existed, whereas hyperpepsia was found in only forty-three per cent. of the cases. In forty-eight per cent. of the cases in which bacteria were absent free hydrochloric acid was less than normal in quantity, being below twenty-five milligrammes per hundred cubic centimetres of stomach fluid, and in 23.5 per cent. it was absent altogether.

It was noticeable that anærobic germs were found most abundant in cases in which the total acidity, the free hydrochloric acid, the co-efficient of liberation, and the co-efficient of absorption were the lowest. It appeared that the anærobics flourished better in an acid medium, or rather resisted the influence of hydrochloric acid better than did the ærobic.

The co-efficient of absorption in the class of anærobic infected cases was .38 as compared with .34 in the sterile cases.

Turning now to the method of determining the relation of urinary toxicity to the bacteria in the alimentary canal, the normal urotoxic co-efficient was .46. In the case of a lady suffering from a severe attack of migraine, stomach infected to a high degree, the urotoxic co-efficient was found six times normal. In another case of marked infection, that of a young woman suffering from epilepsy, the urotoxic co-efficient was found to be more than double the normal. Probably numerous similar cases could be cited.

A fact of considerable importance which these studies have established is that the tests for fermentation, heretofore relied upon, are of little value. Bacteriological examination is the only means by which it is possible to determine accurately the presence or absence of gastric infection.

For combating infection of the stomach, the stomach tube is certainly the most efficient of all therapeutic measures, but most important of all is careful regulation of the diet. Foods already undergoing fermentation or decomposition must necessarily be avoided, and for a time at least those foods which readily undergo decomposition of fermentation—that is, such substances as furnish favorable nutrient media for the development of the micro-organisms found in the stomach.

In cases of excessive amount of free hydrochloric acid, suppression of foods containing ferments and perhaps for a time of foods which encourage the development of ferments is indicated. I find a dry farinaceous dietary of greatest service in these cases, contrary to the practice of many others; but care must be taken that the starch so far as possible is converted into dextrin. In extreme cases I use a starch-free dietary, or rather a dietary in which the starch is completely converted into maltose and combined with prepared nuts. Subnitrate and subgallate of bismuth, charcoal, and sulphur are useful. In hypopepsia and apepsia lavage is of vast service. Well-cooked farinaceous foods are digestible, but meats, butter, cheese, oysters, and fish must be carefully avoided for a few weeks or months in cases of mild infection. In dilation of the stomach dry aseptic food should be given; in gastric catarrh, kumyss, buttermilk, or, better, koumyzoon. Several other measures, including massage, etc., received consideration, and illustrative cases were cited.

TREATMENT OF DIABETES MELLITUS WITH RECTAL INJECTIONS OF PANCREATIC GLANDS.

Lissère has treated two cases of diabetes mellitus with fresh pancreatic glands chopped fine and left twenty-four hours in a saline solution. As the stomach refused to tolerate this, he administered it in rectal injections once or twice a day. The results were that the polyuria was very much diminished, as also the amount of sugar in the urine. Both the sugar and the diuresis returned to their original conditions whenever the injections were suspended. They also exerted a favorable effect upon the general health; the patients gained in weight and lost their excessive thirst.—*Nouveaux Remèdes*, June 24th, from *Med. Obozr.*, No. 4.

ECZEMA OF THE VAGINA:—

R.—Ichthyol ammon. parts iss-ij.
 Amyli tritici
 Zinc. flor. aa parts xij.
 Vaseline parts xxv.
 M.—et. ft. pasta. Sig.—Locally.—*Von Sehlen*.

OBSTETRICS AND GYNAECOLOGY.

IN CHARGE OF

J. ALGERNON TEMPLE, M.D., C.M., M.R.C.S., ENG.,

Professor of Obstetrics and Gynaecology, Trinity Medical College ;
Gynaecologist Toronto General Hospital ; Physician to the Burnside Lying-in Hospital.
205 Simcoe Street.

ECTOPIC GESTATION.

BY W. GILL WYLIE, M.D.

When the President asked me to read a short paper on ectopic gestation I agreed, for I knew that little would be needed after Dr. Mann had read his paper.

I will do little more than give you a report of four or five of the more interesting cases that have occurred within the last four or five months in my private practice and clinic at Bellevue. Since November 18, 1895, I have had five cases of ectopic gestation in my private practice, four in my sanatorium, and one outside that I have operated on, and four in my service at Bellevue. Three were cases of large hæmatocele complicated by sepsis ; the latter were operated on from the vagina, emptied out, and drained. All have recovered. This is a large number to find in so short a time ; but as I grow more expert in diagnosis, and my practical knowledge of the subject increases, the relative percentage seems to increase, and some years it seems to show up in about five per cent. of all cœliotomies. Then I have other cases in which I can only account for the symptoms, where I do not feel justified in operating, except by diagnosing probable extra-uterine pregnancy, causing hæmorrhage and local pain—not enough hæmorrhage to greatly weaken the patient or cause a large mass or tumor to develop in the broad ligament. The real difficulty is to make an early diagnosis. In uncomplicated cases, when there is no hæmorrhage from the fimbriated extremity in the early weeks of ectopic gestation, or rupture of the tube before the second month, if one gets a chance to examine under these conditions, a diagnosis is not difficult. If the mass on the side of the uterus is as large as an orange the indication and justification for cœliotomy is plain whatever the tumor may be, and an exact diagnosis is not important.

In all cases where there are any signs of dangerous hæmorrhage going on in the pelvis little time should be lost in trying to make a clear diagnosis, and the old "shilly-shally" delay to get your patient over the shock by stimulants, time to rally, etc., is intolerable. When hæmorrhage is going on inside, proceed to open the belly at once, and let some one else give hot saline rectal enemata and dypodermatic injection at the same time, while you get in and tie the bleeding vessels before the case is hopeless. Where the child is viable and beyond the fourth month, one

may be justified in waiting and watching till after the eighth month, so as to save the child and mother both by an operation.

Ten or twelve years ago, and even six or eight years ago, I have known the time in this Society when I was almost alone in my advocacy in favor of laparotomy as soon as an ectopic gestation could be diagnosed, and I have always opposed the use of electricity. To-day there is no one to speak against cœliotomy, and I doubt if many will ever again use electricity in ectopic gestation.

The real difficulty is in making a satisfactory diagnosis in ectopic gestation before hæmorrhage endangers life.

The belief, so commonly stated and so generally accepted in the past, and still held by many, that in tubal pregnancy hæmorrhage is not at all likely to occur until after the end of the second or well in the third month is wrong, and the chief motive in my being here to-night is to report in detail several cases demonstrating the fact that hæmorrhage frequently occurs very early in tubal pregnancy, and may be very troublesome, if not dangerous to life.

November 17, 1895, I was called to see Mrs. K., aged twenty. She had been married about six weeks. Before marriage she had always been well; menstruated regularly without pain, normal in amount, and lasting four days. Her last menses (October 25th) came on about as usual, but three days after menses ceased there was some pain, especially on the left side, and a slight flow began and has continued most of the time for the last three weeks. At times the flow is quite free. She has kept quiet, and lately in bed. Has had no fever and the pain has not been very severe. At times she has felt faint and weak, but has not had regular morning sickness. On local examination, I found the uterus soft, somewhat enlarged, and lying back in the pelvis. In front of the uterus and a little to the right side of the median line I could feel what appeared to be the enlarged body of the uterus flexed forward, but the mass was large enough for a two and a half months' pregnancy. I could not trace out the direct connection of the softened cervix, as the upper part of the cervix lay well back in the pelvis. On the left side I could not define a tumor, but the broad ligament felt full and resisting. The patient, although giving a history of having enjoyed good health, was a frail and delicate little blonde, and had lost enough blood to give her a small pulse and very pale face. I advised examination under ether, and to be ready for either a curetting or any operation that might be indicated. I told the mother that it might be a serious case, as I suspected extra-uterine pregnancy, and wished to have the patient at my sanatorium. All arrangements were made to have her moved. Later her mother became alarmed and sent for her family doctor, who examined the patient and said he did not think operation necessary. Fortunately, I was in the neighborhood, and as the patient had not kept the appointment, I thought a severe hæmorrhage might have occurred, and on entering the house met the doctor. After explaining my views of the case, Dr. Mendleson readily agreed to my plans. The next morning (November 19th) I had the patient etherized, and I could easily make out that the mass in front and to the right side was a tumor separated from the uterus, which was

enlarged, softened, and pushed back in the pelvis, and that the right tube and ovary were not normal. The uterus was then curetted, but nothing more than some soft shreddy tissue was found. The abdomen was then opened in the median line, and, as the peritonæum was incised, black clots of blood were found scattered among the intestines, and a mass of loose black clots about the left tube and ovary. There was hæmorrhage going on at the time, apparently from the fimbriated extremity of the tube. The tube was enlarged, and about its centre was distended by a dark mass about the size of a big chestnut.

The right tube was normal, but the left ovary was a small ovarian cyst the size of a large lemon. Both tubes and ovaries were tied off, the abdomen cleared of clots, and the wound closed. The patient made an uninterrupted recovery, and has been in good health since. We thought of leaving the left ovary and the right tube, but decided not to make the experiment on so frail a subject. The uterus was left, as it was healthy, and the patient young and married.

I can not claim that I made a positive diagnosis of ectopic gestation in this case, but my suspicions were strong, and the presence of the small ovarian tumor gave me the needed evidence sufficient to justify an exploratory incision.

The rupture in the tube occurred during removal. This case plainly demonstrates that serious if not dangerous hæmorrhage may occur before the third month of ectopic gestation.

February 6, 1896, I was called to Brooklyn to see Mrs. B., with Dr. Arthur Paine, of Brooklyn. The following history was given: Aged thirty three; first married 1884, and had three children; married again 1892, and two years and a half ago had a child; was always healthy; had had no local trouble; menstruated regularly and normally. January 4th a flow came on which was not normal in quantity or color, being scanty; this kept up for a week, and then what appeared to be normal menstruation started up, and she flowed a week. In the midst of the flow she had a severe pain in the right groin and right leg. The pain was severe and lasted three or four days. She felt weak, but had no fever. January 29th she had a violent pain in the right iliac region which lasted five hours, with repeated attacks of faintness.

On February 5th flow began again, and the pain returned in her side and leg. Had no fever. After listening to Dr. Paine relate the case as above, I said it looks like an extra-uterine pregnancy, and if I find any mass on the right side, it will be a case for exploratory incision. The basis of my opinion was: a healthy woman, with no history of local disease, irregular menstruation, sudden and severe local pain over one Fallopian tube, and *no fever*. Return of pain and flow without fever. Faintness and local pain on one side and no fever. On examination, I found a softened uterus, with a distinct rounded tumor about the size of a lemon on the right side and some abnormal fullness and tenderness of that broad ligament.

The patient was brought to my sanatorium, and the next morning the abdomen was opened. There were free clots in the abdomen and pelvis, with a mass of black clots about the right tube and ovary. There was

free hæmorrhage apparently coming from the fimbriated extremity, and the tube was distended with a dark-bluish mass. The right tube and ovary were removed. The clots cleared out of the pelvis and abdomen. The left tube and ovary and uterus seemed normal, and were not removed. The abdomen was closed without drainage. The patient recovered without rise of temperature, and has been perfectly well since.

The small cyst of the right side was not in this case a true ovarian cystoma, but was of material service in enabling me to confirm my diagnosis of ectopic gestation, and justified an exploratory incision.

This case was easily diagnosed, and the little cyst of the ovary made it easy to confirm. In this specimen the tube is not ruptured, and as the amount of blood was considerable, it demonstrates that early hæmorrhage from the fimbriated extremity of the tube may be dangerous.

March 19, 1896, Dr. J. Kelley sent me Mrs. D., aged thirty-three; married sixteen years; has had four children, the last one five years ago. Has had one miscarriage; menstruation has always been regular till last December it failed to come. In January, at the regular time, or a little later, she thinks she had a miscarriage; since then she has had a constant slight flow. She has had some pain on the left side and felt weak and faint, but looks fairly well; no fever. I made a simple examination and found the uterus enlarged, and marked fullness and tenderness, especially on the left side. I sent her at once to my sanatorium to get ready for taking ether, as I expected to curette to stop the flow. When I examined her under ether I found a large, soft mass the size of a large orange in the left broad ligament, and nothing in the uterus except shreds. I then diagnosed probable ectopic gestation, and not being well prepared to do a laparotomy, and as her condition was excellent, I decided to let her come out of ether, notify her husband and Dr. Kelley of my diagnosis. Early the next day she was again etherized and the abdomen opened. The abdominal cavity contained many large black clots. The left Fallopian tube was distended to the size of a good-sized sausage, and when pulled up had a rupture in it. The ovary contained a good-sized cyst, and was buried in old clots of blood. The left tube and ovary were tied off and removed, and the right was normal and was not disturbed. The abdomen was carefully cleaned of all clots that could be found and closed without drainage or washing out. The patient did well for eight days, when she had pain in her right side, with rise of temperature to 101° and the next day 102° and over. On examination, I found a mass the size of an orange on the left and back of the uterus, evidently due to an exudation around a lot of serum that collected and settled there from some old clot not removed at the time of operation, and would have been carried off if I had made drainage either by means of a glass tube upward or by gauze or rubber by the vagina. The temperature fell, and the exudation was absorbed, and she left the hospital in the fourth week in good condition. Had the sepsis been more decided, an abscess would have formed, or septic peritonitis might have resulted and caused death. It proves that drainage, as a rule, is safer than trusting to getting out all material liable to result in sepsis in such a case. Had the symptoms grown more serious, I was ready in this case to open the *cul-de-sac* and empty the fluid and drain.

When the abdomen was opened, dense adhesions were found in the pelvis. About the right tube was a large mass of clots, and the tube was distended with a dark mass the size of a lemon. This mass lay up in front on top of the bladder. The left ovary was the seat of a small tumor about the size of a lemon. There were no signs of pus, but there were adhesions about the right side that involved the vermiform appendix, necessitating removal by ligature. The uterus, both tubes, and ovaries were removed completely, and gauze drainage and rubber tube left in the vagina. The patient made a complete recovery. There was a slight rise of temperature for a day or two. No diagnosis was made until under ether, and salpingitis or extra-uterine pregnancy was mentioned. The cyst on the opposite side again helped us.

December 5, 1895, I found ready for operation at my clinic Mrs. F., aged twenty-six; married; always healthy till after the birth of a child nine years ago. Since then she has had three miscarriages. After the last one, four years ago, she was in my clinic and was curetted, and the cervix and perinæum sewed up. She was well till last year, when she again had hæmorrhages and was curetted. This relieved her, and she was well until five weeks ago, when she had severe pain on her right side and began to flow. At first the flow was very free, and she has had more or less bloody discharge since. The patient was etherized, and on examination I found a softened uterus well back in the pelvis. On the left side was a small cystic tumor the size of a lemon. On the right was an enlarged tube and fullness of the tissues of the broad ligament anteriorly.

DISCUSSION.

The PRESIDENT called attention to the interesting points which had been dwelt upon by Dr. Wylie in his paper—namely, the difficulty of diagnosis where there has been hæmorrhage from the tube, and especially without examination under an anæsthetic; the question of drainage—whether it is necessary to wash out and drain a simple non-infected case; and fever as a symptom of ectopic gestation in the absence of a sign of old trouble.

Dr. A. P. DUDLEY inquired whether the specimens had been subjected to microscopical examination, and whether chorionic membrane were found to be present.

Dr. WYLIE replied that in two or three of the Bellevue cases they were found, but the specimens present he did not think had been so examined.

Dr. DUDLEY said that his reason for asking was that it was difficult to make a diagnosis of extra-uterine pregnancy in the very early stages, especially such cases as had been reported, and also because of the fact that hæmatosalpinx due to menstruation or to pathological conditions attending menstruation was so similar in appearance to an ectopic gestation, that unless the tube and its contents were subjected to microscopical examination one would sometimes labor under a mistake. He had made it a practice for years to make laparotomy during menstruation, and he had never yet opened the abdomen of a woman while menstruating that

he did not find from two to four ounces of free blood in the abdominal cavity. He had found blood clots as well, and had found the fimbriated extremities, which were always sympathetic with the condition, much congested, and ready to bleed at the slightest touch and manipulation. He had found the tubes containing blood, some of them as large as his thumb. Another interesting point in the paper was the question of leaving a tube and ovary, even though it be somewhat diseased, in a woman who was just married. It seemed to him a terrible thing to have to remove tubes and ovaries from a woman who was only seven weeks married, even though there was a small cyst in the opposite ovary.

Dr. WYLIE said that although it was a small cyst, it involved every part of the ovary, as would be seen by examination of the specimen.

Dr. DUDLEY (continuing) said that his reason for making his statement was that one of the gentlemen with whom he had been battling for a great many years respecting hysterectomy for different diseases of the female organs admitted that he would very soon report two cases of delivery of live children where he had removed both tubes and ovaries, so far as he knew, so that in all probability in both cases a portion of the diseased ovary was left, and in both cases the women impregnated and carried to full term. He found reported in a Berlin journal a few days ago a case of hysterectomy for uterine disease where both tubes and ovaries were left, the tube being brought down into the vagina, and the woman impregnated and carried for six weeks in the tube. If there be a quarter part of one ovary that could be left with the tube he would leave it in every case, and would make a laparotomy later on if it were necessary to remove the tube and ovary for disease. As to the method of attacking such conditions, he believed that the abdominal wall was the best route. It is not in the power of any man to work through a five-inch narrow canal, and manipulate an adherent extra-uterine pregnancy of the intestines or omentum, and remove it with as much safety to the woman as though he went through the abdominal wall. The uterus certainly would not have to be removed in order to get at the pregnancy. The argument would not hold water, because one might just as well say, "Do a hysterectomy for a large pyosalpinx; do not attempt to break up its connections; drain it and leave it there." The woman will have as many reflex symptoms from the pyosalpinx as she will from the extra-uterine sac. He believed that drainage through the vagina is the best. Break up the adhesions, pack gauze behind the uterus, and then open the *cul-de-sac* and bring the drainage down through. If necessary, make double drainage. He had been in the habit of packing one piece of gauze into the pelvis and bringing its end through the vagina, and putting another one on top of that and bringing it through the abdomen, being able to pull the tube in different directions and give relief to the patient. He believed that the tendency was to drift away from the foundations upon which surgery should be forever fastened, which was to conserve and save these organs to patients rather than to take them away. A week ago he received a letter from a patient where he had taken out an enormous ovary with the tube attached. The opposite ovary was diseased, and he took out a portion of it. The patient has been two and a half

years without pregnancy and is now carrying. He believed that experiences of that kind should lead to the saving for the woman of everything that was possible to be saved.

Dr. W. E. PORTER said that he desired to refer to the comparative absence of pain in a great many of these cases of ectopic gestation. He had seen three cases in which there was a very considerable amount of hæmorrhage, which were undoubtedly cases of ectopic gestation, where the patient experienced at the time of the rupture a sharp pain, lasting but a short time in each instance, and the symptoms of hæmorrhage became finally most marked. There was one instance in particular where the hæmorrhage was very slight at first, apparently; there was practically no pain, simply an acute discomfort during an hour or more, which passed off, and there were evidences of continued slight hæmorrhage for a period of three days. Vaginal examination revealed a mass filling up the pelvis, so that when operation was done at least a pint of blood clots were found in the pelvic and abdominal cavities. The question of removal of the tubes must rest entirely with the condition of the individual case. If it was possible to leave one it was wise to do so. But if there was any considerable destruction of the tube, and if the ovary was badly diseased, it was best to remove it, preferably by the abdominal method, from the fact that complete command of the parts is obtained. Personally, he preferred to use very little drainage. If thorough abdominal irrigation, with plenty of sterilized saline solution is used, the clots can be flushed out, and there will be less difficulty afterward in the way of adhesions, and very rarely will there be any subsequent sepsis. If drainage is used at all, he preferred to use it through the vagina in the form of gauze rather than a glass tube.

Dr. H. T. HANKS said that he remembered the last time he discussed the subject in this room. He was one of those at that time who had for a number of years believed in the use of electricity for the destruction of the foetus instead of resorting to an operation. He had been a firm disciple of Dr. Thomas, who had advocated electricity instead of the knife for this condition. Dr. Janvrin had advocated operating at that time for an unruptured pregnant tube. Later the conviction had grown upon him that when a case of ruptured tubal pregnancy was found the thing to do was to open the abdomen. He had said that where an operating gynecologist could be had the scalpel should be used, but if one could not get a gynecologist, electricity might be used to destroy the ovum. He did not care to qualify that statement to-night, but there are but few towns in the United States to-day where there are not one or two who can do an abdominal section. The question to-night is somewhat different from the old discussion. It is a question of which operation shall be done in the different cases. There is no doubt that an operation, in many of the cases, can be successfully done through the vagina. He could only emphasize the point made by him a few nights ago, that to treat all these cases in the same way was unnecessary and unwise. A good operative gynecologist to-day should be an all-round surgeon, and should be able to attack it through the abdominal wall or through the vagina, as may be best for the patient. We ought to operate from above in all bad cases

of ruptured tubal pregnancy, even if the patient is in collapse. Of course not without proper stimulation first. But where there is an unruptured tube, which you are morally sure is a tubal pregnancy, the operation should be done through the vagina. Each case should be treated on its own merits. In ruptured pregnancy, where the hæmorrhage is only slight, but where you are sure it is a tubal pregnancy, operate from below; and where the rupture is into the broad ligament the operation should be from below. The records prove how easy a matter it is to open and empty the blood clots and control the hæmorrhage in the broad ligament. He differed from Dr. Dudley, who had said that all women were liable to have hæmorrhage in the abdominal cavity if the operation is done when they are menstruating. He had operated many times during menstruation, and never found blood in the abdominal cavity. As to the prognosis, he recently had two cases of tubal pregnancy at the same time. One was the wife of a wealthy gentleman on Seventy-first Street. She presented all the subjective and objective symptoms of tubal pregnancy, with slight hæmorrhage, but they were unwilling to have an operation. She is alive to-day, and very well, but has a tumor on that side the size of a mandarin orange. The other patient lived on Fifty-eighth Street, a young woman, the mother of one child. She presented all the symptoms of a ruptured tube. He watched her for a fortnight before doing a suprapubic operation. An interesting point of the case was that the patient never carried any temperature—it was never half a degree above the normal, in fact. The operation showed, however, a ruptured tube on the left side and a pyosalpinx on the other.

DR. PRYOR said he wished to speak of the question of diagnosis. By looking over the anatomy the members present would find that the distance between the *cul-de-sac* and the vulva, and the *cul-de-sac* and the abdomen is about the same. Inasmuch as nearly all these women have had children before the ectopic gestation has occurred, there is usually ample room in the vagina if you use Trendelenburg's posture. The *cul-de-sac* is opened, and no matter how large the sac on one side, by pushing the uterus up behind the symphysis with Péan's trowel, and depressing the posterior flap, it is possible to look into the pelvis, and he had even demonstrated the vermiform appendix three times in that way. The diseased tube can be seen perfectly well, even if the uterus is crowded to one side and the pelvis is seemingly filled up by the ectopic mass on the other. The intestines are pushed up, and there is no difficulty in getting them out of the way.

DR. VINEBERG (in closing) said the points of diagnosis were exceedingly difficult, and every one would admit that he had sometimes been mistaken. The cases which give him the most trouble are the dispensary cases, where the woman comes with an imperfect history, has perhaps aborted, but has had a continued irregular hæmorrhage, and on examination you find a somewhat enlarged uterus with a mass to the one side. The patient has not been under observation. It is impossible in such cases to tell positively whether you have a pyosalpinx there, following an abortion with some infections, or whether you have an ectopic gestation. He had before called attention to the fact that in intra-uterine

gestation there is an irregular enlargement of the uterus which will give rise to all the physical signs and some of the subjective symptoms of extra-uterine pregnancy. He had reported a case where a good diagnostician made a diagnosis of extra-uterine pregnancy, and the woman aborted in the usual way. Dr. McLean had reported an interesting case in which the condition was only ascertained after the abdomen was opened, and it was found that the gestation had occurred in the *cul-de-sac*, and the uterus was bound down by adhesions. As to the question of route, he favors the vaginal route wherever it can be adopted, but unless very favorably situated he prefers going through the abdomen for extra-uterine gestation, for the reason that he does not believe good, safe surgery can be done unless you can deliver the uterus through that vaginal incision, and the uterus in ectopic gestation is very soft and pliable, and you are liable to lacerate it very considerably in taking it through the incision. He was interested in what Dr. Pryor had to say about being able to see these parts so distinctly through the incision in the posterior *cul-de-sac*. To him it appeared to be rather difficult, and he should prefer, as he has always done heretofore, to make an incision in the anterior vaginal wall.

DR. WYLIE (in closing) said that he did not in his paper take up the question of operating, because he thought he had pretty plainly indicated which method he favored. He had had so little trouble and so few mishaps in his operations for ectopic gestation that he saw no reason for changing. In some cases he had not known what it was, but where he did know and felt that he had the choice, he would nearly always take the upper method. In the two or three cases where he operated by the vagina it was a matter of necessity; the patients were badly septic and he did not consider it safe to open the abdomen and do a prolonged operation. As to operating during menstruation, he had done it a great many times, and had seen swollen and congested tubes, but he had not found any free bleeding in the peritoneal cavity unless there was some injury. He did not think the cases he had would have been mistaken for any such condition. The trouble was all in one tube, and the other showed plainly there was no trouble. For the satisfaction of the doctor he would say that in all the eight cases he only took out both tubes and ovaries in two cases, one of them being an ovarian cystoma which involved the whole ovary, and the other a case of pyosalpinx where the tube was useless. He did not believe in taking out the tubes and ovaries of a young woman except in cases of necessity, but in the case in question he had consulted with the woman's husband and mother, and after due deliberation they thought they had better not make any experiments by leaving a healthy tube on one side and a probably healthy ovary on the other.

THE ECONOMIC SEASON.—Benham: "I wish you would ask Mr. and Mrs. Jones around to dinner to-morrow." Mrs. Benham: "What is your hurry about it, all of a sudden?" Benham: "I heard Jones' doctor telling him to-day that he mustn't eat any solid food for a week."—*Texas Siftings*.

PATHOLOGY AND BACTERIOLOGY.

IN CHARGE OF

H. B. ANDERSON, M.D., C.M.,

Pathologist to Toronto General Hospital; Professor of Pathology Trinity Medical College, and in charge of the Trinity Microscopic Pathological Laboratory, Toronto General Hospital. 223 Wellesley Street.

INSANITY FROM POISONS GENERATED IN THE INTESTINES.

Apropos of a paper recently read in London by Dr. Allan McLane Hamilton, of New York, the *Medical Press and Circular* said editorially in its issue for May 27th:

"We are so much accustomed to regard insanity in its various forms as the outcome of hereditary influence *plus* special strain that it is useful to be reminded occasionally that mental disturbances are not always so strictly constitutional, and that mental aberrations may, in a certain proportion of the cases at any rate, owe their origin to such ephemeral and preventible causes as functional disorder of the intestinal canal. A paper on this subject was read by Dr. Hamilton, of New York, at the last meeting of the Medical Society of London, and although we are by no means prepared to admit the accuracy of all his deductions, it may fairly be asserted that he has succeeded in demonstrating that certain varieties of insanity are the direct outcome of the action of poisons elaborated in, and absorbed from, the intestinal tract. Years ago, Dr. Lauder Brunton directed attention to the phenomenal activity of the toxic products elaborated in the course of an ordinary attack of indigestion, and although he does not appear to have included the production of even temporary insanity among the troubles to which they may give rise, he established a striking analogy between their action and that of curare. The intestinal tract is the habitat of an almost incredible number of bacteria and fungi which, or some of them, assist in the process of food disintegration, preparatory to assimilation, and under normal circumstances they hold each other in check. It is easily conceivable that under altered circumstances, either in the direction of a change in the composition of the faeces or an altered environment such as would be afforded by a condition of chronic catarrh, the balance of bacterial power may be disturbed, the beneficent microbes taking a back seat while the more virulent species, temporarily at any rate, gain the upper hand. If we add to this an unduly prolonged retention of the abnormal faeces in the intestines, we have all that is required to provide, and permit of the absorption of, soluble toxic products capable, as laboratory experiments have repeatedly shown, of exerting marked pathogenic effects on the nervous system. Under ordinary circumstances, in the healthy animal organism, the liver acts the part of a chemical filter, eliminating from the blood all such toxic products which are thus prevented from entering the general circulation.

When the liver function, for any reason, is imperfectly performed, these products are permitted to pass, and are left free to work their effects on the delicate tissues of the central nervous system. In persons who have acquired the habit of periodical evacuation of the intestines, it is surprising what an amount of discomfort and inconvenience is entailed by even a moderate delay in the accustomed rite, and it can not excite surprise that the systematic neglect of the intestinal function should give rise to more permanent and more serious manifestations. According to Dr. Hamilton's observations, it seems that a fair indication of the condition of the intestinal canal can be obtained from a careful examination of the urine. He confessed that he had been unable to discover any definite standard of abnormal urine which could be held to be characteristic of insanity, or of any particular form of insanity, but he pointed out that intestinal putrescence determines the presence in the urine of an appreciable quantity of indican, and when indican is present there is also a more or less marked alteration in the ratio of preformed sulphates. These indications, he stated, are generally found in acute insanities, especially those characterized by rapidly developing symptoms. Changing illusions, hallucinations of unsystematized delusions, in association with insomnia, pallor, constipation, and rapid exhaustion, are, in his opinion, generally due to autotoxis of alimentary origin, and this condition is also responsible for various post-febrile, traumatic, alcoholic, and drug insanities. It is worth while recalling, while dealing with this subject, that the same effects have been attributed by various observers to the presence of uric acid in the blood, and as the effect of an excess of uric acid in the production of certain forms of mental disturbance is generally conceded, it is a difficult and a delicate task to distinguish which is primary and which secondary. The worst of the 'professors of uric acid' is that they ride their hobby to death or as near death as common sense will allow of. To listen to them, when they condescend to impart their views, uric acid is the *fons et origo mali* in most of the diseases, apart from the specific fevers, to which human flesh is heir. If the treatment based on the autotoxis hypothesis is shown to be successful in a certain class of cases we are assured that it is because this very treatment has incidentally for effect to favor the elimination of the surplus acid, and so on. Another class of critics object that the intestinal irregularity is the result, and not the cause, of the central nervous trouble, though, if treatment directed to the supposed intestinal focus proves successful, it is not easy to understand their process of reasoning. Under these circumstances it is well to go on broad general principles. We may take it as proved that a certain proportion of cases of insanity not obviously due to cerebral degeneration or other toxic influences may be immensely improved and even relieved by measures having in view the antiseptics of the intestinal tract. The washing out of the large bowel and the administration of antiseptics, such as naphthaline or salicylate of sodium, certainly seem to be attended by marked and favorable effects in these cases, and this is enough for the practitioner who may not have leisure to enter upon the judicial consideration of questions of ætiology and proximal therapeutics. The success of the treatment shows that, contrary to the dictum of Shakespearean skeptics, medicine can, under

certain circumstances, 'minister to a mind diseased.' It may lessen the anxiety of the Government at a time when the increase of insanity is exciting dismay to be told that one of the most fertile causes is chronic constipation or intestinal catarrh. In any case the thoughtful and suggestive paper which Dr. Hamilton brought before the Medical Society of London, ought to have for effect to direct the attention of those in charge of the insane to an important department of clinical observation hitherto comparatively unexplored, which may possibly in the near future give a rich harvest of therapeutical results in a whole category of mental diseases usually assumed, on insufficient data, not to be amenable to medicinal treatment."—*The New York Medical Journal*.

CYCLIC ALBUMINURIA.

PIERRE MARIE (*Sem. Med.*, February 5th, 1896) reports a case and discusses the subject. He defines the disease as albuminuria (1) occurring in apparently healthy subjects, (2) being intermittent in its course, and (3) subject to certain conditions. As regards (1), the discovery of albumen may be perfectly fortuitous, or the patient may suffer from general debility, heaviness of the limbs, palpitations, headaches and hæmorrhages (epistaxis or hæmoptysis). (2) Intermittence: many healthy persons may have transitory albuminuria under certain conditions. Hwass found albumen in 98 out of 635 apparently healthy soldiers (15.4 per cent.), the quantity of which was not influenced by exercise. Capitan and Spiegler found albumen, probably from reflex causes, present in 100 cases of scabies. Thus transitory must be distinguished from true cyclic albuminuria. (3) Conditions: it is doubtful whether cases which are influenced by food or cold are examples of this disease, for in perfectly typical cases they have often no effect. The cardinal symptom is that albumen is present only when the upright position is assumed, and vanishes on lying or sitting down, even when hard work is done by the patient on an exercise apparatus ("postural albuminuria" of Stirling). In the case reported by the author, however, albumen appeared sometimes when the patient was in bed, at times of great annoyance or stormy weather. *Albumen*.—The quantity is always small. Its chemical composition varies with the individual and in the same individual at different times. Serum albumen, peptone, propeptone, nucleo-albumin, etc., have been found. *Urine*.—The quantity is not much affected. If at any time it is less than normal there is said to be a corresponding increase in the albumen. The specific gravity varies, but is usually normal or higher (1020 to 1030). The acidity is usually *plus*. Teissier gives the following cycle in this disease: (a) *plus* excretion of colouring matter, (b) albuminuria, (c) *plus* excretion of urates, (d) *plus* excretion of urea. *Etiology*.—(1) Sex, more common in females. (2) Age, adolescence and early adult life. (3) Heredity, especially in children of gouty and arthritic parents (Teissier). (4) Disputed antecedents are renal affections, colds, overwork, and infective fevers. After reviewing the various theories as to the nature

of this complaint, the author states that he considers it to be a special morbid entity, probably depending on perverted function of sympathetic nerves, and having a close analogy to migraine. He does not agree with those who believe the cause to be a "minimal" organic renal lesion, as the almost indefinite time the disease can last without bad effects, and its not being influenced by the quality of the food, are against that theory. Casts are not generally present, but Marie does not consider the presence of casts in small numbers to indicate organic disease, for Hwass, by means of centrifugalisation, found them 69 times in 74 healthy soldiers. Of these, 48 alone had albuminuria, and that of a transitory character.—*British Medical Journal*.

EXTRA-PULMONARY LOCALIZATIONS OF THE PNEUMOCOCCUS.—NICOLAYSEN (*Norsk Magazin for Lægevidenskaben*, April, 1896) reports the following cases: A boy, aged 4, died after a month's illness, the symptoms of which suggested pulmonary tuberculosis, followed by meningitis. At the necropsy was found a double, non-tuberculous, lobular pneumonia, double empyema, purulent meningitis, and a left suppurative otitis media. In the pus and in the organs attacked Fraenkel's pneumococcus was demonstrated by means of cultures and experiments on animals. The other patient, a boy, aged 4 months, also presented somewhat complicated symptoms, and died after 4½ months. The necropsy in this case revealed a double empyema, pyopericardium, bronchitis, and a pyarthrus of the elbow-joint. Before death, the pneumococcus had been found in the blood and in the pus from the abscess, and *post mortem* it was also demonstrated in the implicated organs. The author believes the lung to have been the primary seat of infection in both cases. After reviewing the various affections caused by the pneumococcus, both as complication of pneumonia and as independent affections, the author considers that at least three facts may be looked upon as certain: (1) That the pneumococcus has been found in the oral and nasal cavities in healthy subjects, and may infect neighboring tissues; (2) that pneumococci from an infected organ can be carried by means of the lymphatics to other organs; (3) that they may escape from one focus into the blood, and be carried by the circulation to any other place in the organism. The author also quotes a number of cases from the special literature, which appear to prove that the pneumococcus, more frequently than has been thought, passes from a pneumonic lung into the blood, not only in fatal cases, but in many others that recover.

PNEUMOCOCCI AND THEIR LOCALIZATION AND PNEUMOCOCCIC PERICARDITIS.—ZUBER (*Th. de Paris*, 1896, No. 3 5) says that while in man pneumococci are generally localized in the lung, they may invade the whole system and pass into the blood, and that pneumonia in its most intense form is a general infection—a septicæmia. Even in the localized form of the disease a few cocci may pass into the circulation, but do not multiply there, and to demonstrate their presence a considerable amount of blood must be submitted to examination by culture and inoculation.

Cocci thus entering the circulation multiply and form infectious foci at the spots where they are arrested, causing metastasis of the original disease (arthritis, meningitis, abscess, etc.). These secondary localizations probably depend on the pathological condition of the parts in which they are situated, though this is not always to be proved. Pneumococcic osteitis has been met with consecutive to a fracture or at the seat of an old osteomyelitis and pneumococcic suppuration of a joint containing uratic deposits, and these are not merely coincidences; in animals infected by pneumococci, secondary localization has been provoked at the seat of physical or chemical injury, and in man the use of certain drugs for hypodermic injection has had the same effect.—Oski (*Th. de Paris*, 1896, No. 358) points out that in 1886, Netter demonstrated the possibility of a pneumococcic pericarditis without declared pneumonia, but though such pericarditis may rarely be a primitive manifestation of a general infection, it is, as a rule, secondary to pneumonia by contagion through the pulmonary lymphatics. It occurs more often in adults and in males than in others, in pneumonia of the right lung than that of the left, and during grey hepatisation rather than in the other stages of the disease. It often passes unnoticed, being masked by the signs and general symptoms of the pneumonia. It is suggested by a sudden depression of the temperature curve with algidity and cyanosis of the extremities or by a rise succeeding a more or less marked depression. The prognosis is more grave, especially in the purulent or hæmorrhagic form; paracentesis may give a chance of recovery.

TUBERCLE OF THE FEMALE GENITALS IN CHILDREN.—Maas (*Archiv f. Gynäk.*, 1896) has collected 8 cases, one in his own experience. In the first, the Fallopian tubes and uterus were diseased. Infection probably originated in the umbilicus, as a line of tuberculous granulations were detected running from it over the peritoneum. The second was an instance of tuberculous disease of the intestines. Infection of the ovaries had occurred, the disease passing from the rectum. In the third, the genital disease was secondary to pulmonary phthisis. A fourth case was a true example of primary tubercle of the genitals. The fifth was identical in course and character with the second. The sixth was of special interest. A child, aged 13 months, had vulvitis and tuberculous disease of the genitals. The mother was phthisical, and direct contamination must have taken place. In the seventh the father was tuberculous, and, as in the sixth, the disease began with vulvitis. The eighth patient had tuberculous pneumonia after measles, and a vaginal affection, also clearly tuberculous. The parents were healthy. The primary seat of disease remained uncertain. The tubercle may have been carried from the lungs to the vulva by the lymphatics, or more likely the child had touched the vulva with fingers soiled with sputum.

VERY STRANGE.—“ You say I was born in Leeds, papa. Where was mamma born ? ”

“ In Liverpool.”

“ Isn't it strange that we three should have got to know each other ? ”

NOSE AND THROAT.

IN CHARGE OF

J. MURRAY MCFARLANE, M.D.,

Laryngologist to St. Michael's Hospital. 32 Carlton Street.

THE INFLUENCE OF SEA AIR ON AFFECTIONS OF THE NOSE, THE THROAT, AND THE EARS.—The November-December number of the *Archives internationales de laryngologie, de rhinologie et d'otologie* publishes an article on this subject in which the writer, M. Lavrand, of Lille, gives the results of his experience in this direction.

Persons, he says, who suffer with chronic nasal affections, such as hypertrophy of the mucous membrane of the turbinals, acute and frequent attacks of coryza, ozæna, and suppuration of the sinuses, may be benefited by remaining at the seaside for a certain length of time. The mental rest, the open air, the sun, and the frequent exercise modify the progress of these diseases by their effects on the general health. General bathing is beneficial; but salt-water douches or sprays are of moderate value only in these affections, with the exception, however, of ozæna, in which affection this treatment has several times given good results. On the whole, says M. Lavrand, all nasal affections that are not acute may be favorably influenced by sea air. By very excitable persons and by those in whom the pituitary membrane is particularly sensitive and the exhilarating and exciting effects of sea air are not well borne.

With regard to throat diseases, hypertrophy of the tonsils frequently appears in lymphatic subjects, and such persons are benefited by the sea air, which exercises a favorable influence on the organism and increases its vitality, in this way causing the reduction of the tonsils. If the hypertrophy is of long standing, however, the local condition will not be benefited, although the general health may be favorably influenced.

Nasopharyngeal, pharyngeal, and laryngeal catarrhs, says the author, may be divided into three classes: 1. Those which are provoked and aggravated by sharp air. In such cases the sea air is contraindicated, unless the patient gradually becomes accustomed to it. 2. Catarrhal atony induced by defective vital energy of the mucous membranes. In this class of affections sea air certainly exercises an ameliorating influence. 3. Catarrhs resulting from vocal or general overtaking. Of persons thus affected, those who are nervous, arthritic, or predisposed to congestion, should avoid the seaside; the others are marvellously benefited by the air, the sun, the bathing, and the exercise, provided the latter are taken gradually and in moderation. Acute affections of the throat are distinct contraindications.

With regard to diseases of the ears, says M. Lavrand, acute diseases are also a contraindication to this mode of treatment, and chronic affections of the ear are not usually influenced favorably by sea air; gener-

ally it aggravates the trouble. Diseases that are engendered or aggravated by a bad general condition, on which sea air exerts beneficial results may be excepted.

M. Lavrand's conclusions are that a residence at the seaside for a certain length of time may be beneficial in the chronic affections of the nose, the throat, and the ear. The following exceptions, however, may be made: 1. If there is constant or intermittent suppuration of the ears. 2. If there is sclerotic otitis with buzzing of the ears. 3. Diseases of the pharynx and of the larynx in persons subject to congestion, in excitable tuberculous persons, and in arthritics who are predisposed to congestion or to acute or subacute attacks of inflammation of mucous membranes.

THE NOSE AS A GERM-FILTER.—The experiments of St. Clair Thompson and R. T. Heirlett (*Medical Record*, June 6, 1896) emphasize the importance of having a healthy nose. Their researches show that, under very favorable conditions, the lowest number of organisms contained in the inhaled air of an hour was fifteen hundred; and that in a large city, the air that passes through the nose in the same period is charged with from twelve to fifteen thousand. Tyndall has shown that the last portion of an expiration is free from impurities. Other authorities have demonstrated that the interior of normal nasal cavities is perfectly aseptic. The vibrissæ, which line the vestibules of the nose, however, are usually well-laden with micro-organisms. This clearly proves that this portion of the respiratory tract acts as an excellent filter, and that a large number of bacteria meet destruction at this site. Furthermore, pathogenic organisms which have reached the interior of the nose are readily ejected. The following experiment substantiates the last remark: A pure culture of bacillus prodigiosus was placed upon the nasal septum, some distance from the vestibule. Cultures were made every few moments. Continual falling off of the growth in the culture-medium was observed, until at the end of two hours no growth of the bacillus could be detected.

THE PROPHYLAXIS OF NASAL CATARRH.—The well-known author, Carl Seiler (*N. Y. Med. Journal*, July, 1896), states that the fundamental origin of this affection arises from the so-called rearing of children by over-feeding, over-clothing and over-care-taking. Fresh air, he remarks, is nature's best remedy, and should be administered with a lavish hand. Too much care in the handling of young ones should be avoided. Avoid the unwholesome desire to over-dress the body. Cleanliness, not only of the body, but of the nasal cavities, should be practised. It is an important part of an individual toilet, and prevents the putrefactive process, and thus avoids the possibility of systemic infection by the ingestion of the products of putrefaction in the susceptible system of a young child. As early as possible a child should be taught to snuff up the nose a warm saline or alkaline solution, with or without the addition of antiseptics, either from the hollow of the hand or from a small cup or glass, three or four times morning and evening. In this manner the habit is

formed, and the routine cleansing becomes a regularity. Atomizers and douches should be avoided at this period in life. The solution employed must be non-irritating and at a suitable temperature, so as not to chill the mucous membrane and cause unpleasant symptoms. Cold applications, in the form of sponging the neck, chest and arms, are recommended.

THE RESULTS OF INJECTIONS OF ERYSIPELAS TOXINS UPON MALIGNANT GROWTHS.—The following conclusions were offered in a report before the New York Surgical Society by Drs. Stimson, Gerster and Curtis (*Annals of Surgery*, July, 1896):

1. That the danger to a patient from this treatment is great.
2. Moreover, that the alleged successes are so few and doubtful in character that the most that can be fairly alleged for the treatment by toxins is that it may offer a very slight chance of amelioration.
3. That valuable time has often been lost in operable cases by postponing operation for the sake of giving the method of treatment a trial.
4. Finally, and most important, that if the method is to be resorted to at all, it should be confined to the absolutely inoperable cases.

SIMPLE ACUTE LARYNGITIS AND BRONCHITIS.—According to clinical observation (*N. Y. Med. Journal*, July 18, 1896), an acute inflammation of the respiratory tract is of free progression. Resolution may have taken place in the larynx and trachea, and yet the lower tissues may be in an acute stage. The important factors tending towards recovery are a free flow of mucus and serum from the mucous membrane, and the getting rid of the foreign element as soon as possible. Retained secretions irritate and ferment, thus reinfecting the parts. Remedies that will stimulate secretion are indicated. The bronchial mucus is the best sedative to an inflamed larynx, and a flow of this non-irritating secretion should be encouraged. For five years the writer has found apomorphine, in a freshly compounded acidulated mixture, to be the best of all relaxing expectorants. He gives it in one-thirtieth grain doses, at two or three hour intervals, and it rarely fails to do its work. Rest is also necessary in these cases. Sulphate of codein, in one-fifth grain doses, p. r. n., is also given. Carbonate of ammonium he found to be the most serviceable stimulating expectorant.

SOME OBSERVATIONS IN LARYNGEAL TUBERCULOSIS.—Among some of the more obscure points in the symptomatology of this affection, Vander Poel (*N. Y. Med. Journal*, July 18, 1896) mentions the simple weakness of the voice, without organic change in the larynx. This, he thinks, is due to the weakened tensors of the vocal cords. The latter appear shortened and shrivelled. The appearance of the parts resembles the picture of hysterical aphonia; except that, in the latter ailment, the abductors are usually affected and not the tensor muscles. The paralysis of the right vocal cord, which is at times seen in tubercular disease of the larynx and lungs, is supposed to be due to the right recurrent nerve being

imbedded in the hard, thickened pleural tissue about the apex of the right lung. (Edema naturally interferes with the usual movements of the crico-arytenoid articulation, and so may give rise to the symptom in question.

As a preliminary symptom to the development of a tubercular manifestation, the author has noticed "a slight thickening of the mucous membrane, associated with the presence of a white, milky, somewhat purulent, mucous fluid, which secretion contains no tubercle bacilli, but which he considers almost pathognomonic. It is chiefly found in the region of the aryteno-epiglottic folds, or may coat the interior of the larynx." He has seen this catarrhal state six weeks to two months before the usual symptoms developed. A case in point is mentioned.

A NEW POSITION FOR MAJOR NASAL OPERATIONS.—Carl Seiler describes a new position for major operations within the nasal cavities (*Maryland Medical Journal*). Where general anæsthesia is necessary, as in large fibroid tumors or rhinoliths, it is very often necessary to plug the posterior nares and perform tracheotomy, making the operation more tedious and complicated. To avoid this, he has for several years employed a method which he has found satisfactory in these cases. He places the patient on a table in a ventral recumbent position, with the head projecting over the table, and held in a horizontal position by a band around the forehead, which is held by an assistant or by a firm support attached to the table. While the relative topography of the parts are changed, still this does not render the operation more difficult than when the patient is in a dorsal or lateral position. During the operation, the blood flows downward from the mouth or nostril, without any risk of suffocating the patient. While operating he depends much upon the sense of touch; but where the light is necessary he lies upon his back on the floor and reflects the light in the usual manner; when in this position the relative topography of the parts are re-established.

THE ETIOLOGY AND TREATMENT OF POST-NASAL CATARRH.—W. Freundenthal, in the *Journal of the American Medical Association*, gives some useful points regarding the treatment and etiology of post-nasal catarrh.

The naso-pharynx is a part of the respiratory tract, as it is lined with columnar ciliated epithelium. Although Aschenbrandt has demonstrated in his experiments, that the greater portion of the warming and moistening of the inspired air is carried on in the nostrils, still these experiments were conducted in normal subjects. Freundenthal has made a number of experiments in pathological subjects, as well as normal, and has found that the naso-pharynx is a very important adjunct to the nostril in its respiratory functions. In a case in which the nostril of the patient had been extensively cauterized for four years, so that the nostrils were able to carry on only 25 per cent. of their function, yet this patient felt no inconvenience whatsoever, (?) showing that the naso-pharynx had con-

tributed very largely in preparing the inspired air in this case. He attributes much of the prevalent catarrhal troubles to defective methods in warming houses, the heat of which is almost always too dry. The common idea that we catch cold on account of defective dress, is erroneous; the true reason being that we do not live enough in the open air, and do not admit enough fresh air into our houses. Children who go barefoot are not as subject to colds as those who wear shoes. The underwear should only be worn to the extent that it is necessary, so as not to interfere with the cutaneous respiration.

SARCOMA PRESENTING IN THE NASAL FOSSA.—Four months after removal of what seemed to be a myxoma, the right nasal cavity was found to be occluded by a round-celled fibro-sarcoma, in a female twenty-six years old. Repeated curettage was carried out, but it became necessary to remove the body of the ethmoid bone by external operation. It is supposed that the polyp was the result of irritation due to the presence of the malignant tumor.—HARDING, *British Med. Journal*, Feb. 29, 1896.

DISEASES OF THE MOUTH, NOSE AND THROAT AS PATHOLOGICAL FACTORS IN GASTRITIS.—F. B. Turck, in the *Medical Fortnightly* has an article on "Disease of the Mouth, Nose and Throat as Pathological Factors in Chronic Glandular, Gastritis, with Bacteriological Studies of the Pharyngeal Vault."

Bacteriological studies have shown that upon the mucous membrane of the mouth, nose and pharynx groups of micro-organisms are found, which are also present in the stomach during gastritis. Under normal conditions the mucous membrane of the stomach does not favor colonization upon its walls, but during pathological processes micro-organisms may develop. The mouth, nose and throat, in diseased conditions, are incubators, ready to infect the stomach when diseased conditions permit the development of growing micro-organisms upon its walls; these bacteria being carried into the stomach during the act of swallowing. Turck, in his clinical and experimental work, has demonstrated groups of micro-organisms obtained from the gums and cavities of the teeth, similar to those found in the material from the walls of the stomach, obtained by the gyromele (revolving round). He reports several cases, in which he shows that many of the pathological micro-organisms present the identical biological and physical forms in cases of gastritis as found in the mouth and post-nasal cavities of the same patient.

ASTHMA.—A case of asthma cured by the inhalation of the vapor of peroxide of hydrogen is reported by Dr. W. B. Ketchum (*The Texas Health Journal*). The patient had been subject to cases of asthma for ten years, until she was directed to inhale the vapor from an inhaler which contained equal parts of glycerine and peroxide of hydrogen. After she had used this treatment for one month, the patient reported herself as "cured." (?)

PAEDIATRICS.

IN CHARGE OF

J. T. FOTHERINGHAM, B.A., M.B., C.M.,

Physician to Out-door Department Toronto General Hospital; Physician to Out-door Department Hospital for Sick Children.

THE MANAGEMENT OF INFANT FEEDING.

BY LOUIS FISCHER, M.D., NEW YORK.

All pediatricists will agree that nothing more difficult confronts them in their daily practice than to decide exactly what to feed a baby, and in this paper I shall discuss the subject under two divisions: First, infant feeding in health; second, infant feeding in disease. The term "infancy" is here used to include all times from birth to the end of the second year, or until the completion of the eruption of the milk teeth. No one will dispute the fact that the feeding of a sick baby is an entirely different matter from the feeding of one in good health. I shall therefore first consider feeding in health. An infant may be fed in two ways: First, from the human breast; second, from a bottle, otherwise known as hand-feeding or artificial feeding.

NURSING OF THE NEWLY BORN.—An infant should be put to the breast as soon after birth as the mother's condition warrants, which is usually between six and twelve hours. The first milk contains colostrum, which consists of laxative salts, and clears the child's intestinal tracts. It does contain some nourishment, and the usual addition of sugar water to the dietary, or milk and water where colostrum is given, is deleterious.

The proper secretion of milk in a normal breast rarely takes place before the third day. An infant should be put to the breast every two hours. By this stimulation it aids the formation of milk and also the contraction of the uterus. Should there be a deficiency of milk supply, however, then cow's milk might be advantageously given, diluted as follows:

One-third cow's milk,

Two-thirds water,

One piece of loaf sugar and some salt.

The minutest instruction should always be given as to the interval between each nursing, as to the quantity that a child should take, for some children with a good appetite require both breasts for one meal, as to regularity in feeding and about feeding at night.

A healthy child during the first two months requires the breast every two hours, from 5 a.m. to 11 p.m.. The child should not sleep with its mother, but be trained to sleep in a crib for at least six hours, so as to insure some rest at night for the mother.

This is a vital point in my opinion, as, from the prolonged lactation, the quality and quantity of the mother's milk must never be lost sight of, and unless the mother has her proper rest the milk will be deficient in quality.

I wish to emphasize the fact that we must individualize our method of feeding, and remember that while some children merely require food once in three hours, others will require feeding every hour and a half.

The strong, newly born infant has a stomach capacity of about one and one-half ounces. It has been found that an excessive feeding over this amount may cause vomiting. Slow nursing extending over fifteen minutes is preferable to quick nursing. In this way a child would probably receive about twelve ounces of milk in each twenty-four hours during the first week. The infant could be fed once every two hours, giving us ten feedings in twenty-four hours and allow four hours for rest.

As the child gets older and stronger the stomach capacity increases, and the interval of two hours between each feeding can be prolonged so that one feeding every two and one-half hours or eight feedings in twenty-four hours would be sufficient, never omitting the interval of rest at night for the recuperation of the mother. Between the third and fourth month the child need be nursed only every three hours, and experience has shown that an infant takes about three to six ounces at each feeding, or between twenty-four and thirty-six ounces in twenty-four hours. This will amount to six or seven feedings in twenty-four hours.

WET NURSES.—If the infant's own mother cannot nurse her child, then we can and should try to secure a wet nurse.

The wet nurse must be carefully examined as well as her child for the presence of syphilis. With your permission, I beg to refer to a short paper on this subject, published in the *American Medico-Surgical Bulletin* in January, 1894:

1.—Never have a baby fed by the milk of its mother if the latter suffer with general debility or tuberculosis. Extremely nervous mothers should not nurse their babies.

Syphilitic babies (hereditary) can only be nursed by their own mothers, owing to the risk of infecting the wet nurse. Very frequently the life of the child is dependent on its being nursed by its mother in syphilis.

(a) The return of menstruation is no contra-indication to the continuation of nursing.

(b) The moment a woman is pregnant nursing should be stopped.

(c) Children should not be nursed at night unless for some special reason.

(d) Weaning should take place gradually, and only in the eighth to the tenth month.

(e) It is understood that weaning should not be commenced during the hot summer weather.

The main factor in determining the time of weaning is "weighing." Children must be weaned, when, although in perfect good health, they remain below normal weight.

(f) Prolonged nursing will induce rhachitis.

2.—If, for various reasons, a child cannot be nursed by its own mother, we then resort to the wet-nurse.

(a) She must be carefully examined as to her physical condition; tuberculosis, all chronic disorders and diseases would prevent proper nursing. Hereditary nervous troubles, epilepsy or syphilis would exclude nursing.

Milk requires examination to determine amount of fat, the condition of the emulsion, etc.

(b) It is a good point to procure a wet-nurse suckling a child about as old as the one we wish her to nurse, although it is quite common to find nurses who have older children than the one they wish to nurse and to find the latter doing well.

(c) The proof of the usefulness of the wet-nurse is the condition of the baby after some time. If the child thrives it will increase in weight. Hence scales must be frequently used.

WEANING.—When a child reaches the age of six months, it is well to think of weaning. I have very successfully tried gradual or partial weaning. This consists in giving at the age of six months one hand-feeding of six to eight ounces during the twenty-four hours. It is to consist of cow's milk three ounces, and, if the bowels are regular, three ounces of barley gruel, made with water, and about ten-fifteenths grains of ordinary table salt and one-half lump of cane sugar.

Each month following the sixth month we can withdraw one breast-feeding and in its place substitute an artificial feeding, so that by the ninth month the infant is weaned. Unless it be mid-summer, or on account of some special condition, complete weaning should take place about the tenth month.

In addition to giving a bottle in the method of partial or gradual weaning, a small piece of crust of bread or zwieback can be added to the dietary, besides a little thin beef soup or expressed meat juice.

If an infant while nursing does not increase in weight between five and six ounces weekly, then it is better to advise a careful examination of the breast milk. For this purpose numerous instruments have been devised, as Marchand's lactobutyrometer, but probably the simpler method of examination for cream and fat devised by Holt is best. This little instrument, which I show you, is known as the creamometer, and shows the relative percentage of cream and fat in the milk. A drop of milk placed under the microscope will easily tell the story.

HAND OR ARTIFICIAL FEEDING.—If we cannot give our infant breast or human milk, then we must resort to artificial feeding. Our choice will lie between giving peptonized, humanized, pasteurized, sterilized, modified or boiled milk, or possibly some patent food.

The method of peptonizing milk with pancreatin and soda is too familiar to mention, and, as it is only used in sick babies, I will only allude to it.

Humanized Milk.—A pint of milk is set aside until the cream rises, and this cream is skimmed off and kept. To the milk remaining is added enough rennet to curdle it. The whey is strained off the curd and

added with the previously separated cream to a pint of fresh cow's milk. This is known as humanized milk. In some infants it will be well borne during the first three months, and to this can be added farinaceous liquid for dilution if required.

Pasteurized Milk.—This is really partially sterilized milk, and consists of sterilization at a temperature of 167° F. instead of 212° F. This sterilization to be continued for from twenty minutes to half an hour. Pasteurized milk should only be used during the twenty-four hours following this process. A good apparatus for this purpose is the one known as Dr. Freeman's Pasteurizing apparatus

Sterilization.—I desire to be put on record as stating that with our present knowledge nothing better than sterilized milk has yet been devised. On November, 12, 1891, I demonstrated an improved Soxhlet sterilizer before the Section of Paediatrics of the New York Academy of Medicine. The sterilizers which are in actual use in this country are easily tampered with, so that there is no guarantee of the milk remaining sterile, whereas in the Soxhlet apparatus when the stopper is removed the bottle of milk must be used at once. The difference is very apparent if you will compare the two bottles.

FLUIDS FOR DILUTION OF MILK IN HAND-FEEDING.—*Barley Water.*—Take a teaspoonful of pearl barley, grind it in a coffee grinder, or pound it in an ordinary mortar, add one pint of cold water, and allow it to simmer slowly for about an hour. Strain and add enough water to make one pint.

Oatmeal Water.—Take a teaspoonful of ordinary coarse oatmeal, and add one pint of water. Allow it to simmer slowly, for one hour and strain. Add enough water to make one pint. The same directions apply to making a household mixture of farina water, rice water, or sago water, using the same proportions as above.

Arrowroot.—Add two teaspoonfuls of arrowroot to one pint of water; allow it to simmer for half an hour, stirring it constantly.

Pasteur found that subjecting milk to a temperature of 160° to 170° F. for fifteen or twenty minutes will destroy all germs of tuberculosis, scarlet fever, diphtheria and pneumonia. As this is all that is necessary to make milk sterile, it answers all practical purposes. Heat above 165° F. destroys the starch fermenting ingredient of milk, called galactosine, which is an important loss to the infant.

Lact albumen, which is allied to serum albumen, is coagulated by heat. This produces the unpleasant smell which characterizes boiled milk. Milk sugar is destroyed or changed. Cream can be seen floating as fat globules upon the surface of sterilized milk, and it is necessary that the digestive function should change it to an emulsion before it can be absorbed. Caseine is also changed by sterilization. Baginsky states that it requires more rennet and a higher temperature to effect the digestion of the caseine of sterilized than that of new milk.

Since sterilization produces the effect just noticed, Pasteurization, which is sufficient to destroy pathogenic bacteria, will answer our purpose better. Pasteurized milk however cannot be used after twenty-four hours. What asepsis in surgery is to antisepsis, so pure, natural, sterile

milk is to artificially sterilized milk. Should we ever be able to receive milk from our dairies free from micro-organisms, then we can easily discard artificial methods of sterilization and Pasteurization.—*Pediatrics*, July 15th, '96.

We print the following as bearing on the case referred to in last issue:—

MEDICAL ITEMS.

THE DEATH OF DR. LANGERHAUS' SON EXPLAINED.—A full and satisfactory explanation of the sudden and tragic death of the little son of Dr. Langerhaus immediately following an injection of antitoxin serum has been reached through the subsequent investigation. In the first place, the analysis of the serum proved it to be reliable, and no irregularity in the method of its administration could be discovered. It was found, however, that the child had just completed an unusually heavy meal, and as the necropsy showed his larynx and trachea well filled with a material identical with that found in his stomach the accepted inference is that while faint from the shock of the injection he was unable to eject the vomited matter from his throat, and instead drew it into the air passages, with fatal effect. It may be concluded, then, that what appeared to be quite damaging evidence against the serum is really the result of a very simple accident.—*Medical News*.

FOR BRONCHO-PNEUMONIA IN CHILDREN. *Rév. Internat.*:—

- R. Sodii benzoatis.....gr. viii
 Ammonii acetatis.....gr. xxiv
 Spiritus Vini Cognac.....f ʒ ij
 Misturæ acaciæ
 Syrupi simplicis.....aa f ʒ jss
- S. From one-half to one fluid dram every two hours.

NEURALGIA.—A local application much used in the clinic of Dr. S. Solis Cohen, *Phila. Polyclin.* for the relief of vague pains localized at different points upon the surface of the body, as well as in the treatment of intercostal neuralgia and the pleuritic stitches of chronic pulmonary tuberculosis, is the following:

- R. Menthol, }
 Chloral Hydrate, }equal parts.
 Camphor, }

M. Sig.: Apply to painful part with camel's hair brush once daily, or as symptoms may indicate.

In this prescription the liquefaction of the solid ingredients takes place when they are brought in contact. The resulting fluid is slightly stimulating, slightly irritant and decidedly analgesic. Should its too frequent application result in vesication its use is intermitted until the parts heal.

“APENTA”

A Natural Hungarian Aperient Water.

Bottled at the **UJ HUNYADI SPRINGS,**
BUDA PEST, HUNGARY.

*Under the absolute control of the Royal Hungarian Chemical
Institute (Ministry of Agriculture), Buda Pest.*

“We know of no Stronger or more favorably constituted Natural Aperient Water than that yielded by the Uj Hunyadi Springs.”

L. Lieberman
Royal Councillor, M.D., Professor of Chemistry
and Director of the Royal Hungarian State
Chemical Institute (Ministry of Agriculture),
Buda Pest.

Approved by the **ACADÉMIE DE MÉDECINE, PARIS.**

“The Lancet” says:—

“A much-esteemed purgative water.”

“Its composition is constant. The practitioner is thus enabled to prescribe definite quantities for definite results.”

“A Natural Water. Artificially-made waters exhibiting approximately the same saline composition are not so beneficial as those derived from natural sources.”

“The British Medical Journal” says:—

“Affords those guarantees of uniform strength and composition which have long been wanting in the best-known Hunyadi waters.”

“Agreeable to the palate.”
“Exceptionally efficacious.”

“The Medical Press and Circular” says:—

“Belongs to that large class of Aperient waters which come from the neighbourhood of Buda Pest, commonly known under the generic name of Hunyadi.”

“Constant as regards its general characteristics.”

“Contains a large amount of lithia. Specially marked out for the treatment of gouty patients.”

“Unique amongst strong purgative waters.”

“The Canada Medical Record” says:—

“A very reliable and satisfactory Aperient.”
“More agreeable to the palate than any we have knowledge of.”

.....
PRICES: 15 Cents, 25 Cents and 35 Cents Per Bottle.

Full Analysis and Samples will be supplied on application to

CHARLES GRAEF & CO., - 32 Beaver Street, NEW YORK.

Sole Agents of THE APOLLINARIS CO. LD., LONDON.

We should be glad to have
you write for a sample of



TAKA-DIASTASE.



Acts more vigorously on Starch
than does Pepsin on Proteids.

: RELIEVES :

Starch * Dyspepsia.

We are now able to relieve a large number of persons suffering from faulty digestion of Starch, and can aid our patients, during convalescence, so that they speedily regain their weight and strength by the ingestion of large quantities of the heretofore indigestible, but nevertheless very necessary, starchy foods. We trust that the readers of the *Gazette* will at once give this interesting ferment a thorough trial, administering it in the dose of from 1 to 5 grains, which is best given in powder, or, if the patient objects to powder, in capsule.—*The Therapeutic Gazette.*

Pepsin is
of no Value

In ailments
arising from

Faulty Digestion
of Starch.



PARKE, DAVIS & CO.,

BRANCHES:

NEW YORK: 90 Maiden Lane.
KANSAS CITY: 1008 Broadway.
BALTIMORE: 8 South Howard St.
NEW ORLEANS: Tchoupitoulas and Gravier Sts.

Manufacturing Chemists,

DETROIT, MICH.

Branch Laboratories: LONDON, ENG., and WALKERVILLE, ONT.

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. Address, DR. J. L. DAVISON, 12 Charles St., Toronto.

☞ Advertisements inserted on the most liberal terms. All Cheques, Express and P.O. Orders to be made payable to DR. G. P. SYLVESTER, Business Manager, 585 Church St., Toronto.

AGENTS:—Eastern Agents, MONOHAN & FAIRCHILD, 24 Park Place, New York; J. & A. McMILLAN, St. John, N.B.; Canadian Advertising Agency, 60 Watling St., London; 5 Rue de la Bourse, Paris.

The Largest Circulation of any Medical Journal in the Dominion.

Editorial.

Truly this is a day of disillusionments—a time when shattered idols are more common than those in the odour of sanctity. Homer seems to nod more frequently than ever. The last issue of the *Practitioner* contained an appreciative, not to say flattering, review of a so-called *Metaphysical Magazine*, palpably not written by the genial and well-beloved physician who is editor-in-chief, and certainly inserted without his knowledge. The Magazine in question is the organ of the most advanced faddists of Theosophy and Christian Science, and the very number received with such favor by the *Practitioner* contains, among other choice pieces of verbose obfuscation, an article proving that the "respiration" (meaning the breath) "during a time when an evil emotion is dominant, contains volatile poisons which are expelled through the breath and are characteristic of these emotions." The sage investigator goes on to say that by applying chemical agents to the breath he can produce a precipitate and so detect these poisons, and that, "in the case of grief the color will be pinkish."

Ever since we read that review in the *Practitioner*, our breath has been of a beautiful pale pink at the thought of the game some one has played on the Editor, and we quite expect him to display a bright scarlet flambeau for a week after discovering the trick by which his apparent endorsement has been secured for the maunderings of a lot of people gone queer over Esoteric Buddhism.

DIET IN TYPHOID.

The advent of the season for "autumnal fever" makes timely some reminders as to details in the feeding of those who cannot take milk well. It is needless to say once more that nursing and feeding are the agents of cure, and one may add that intelligent supervision will make more demands on the physician here than in almost any other disease. It is generally admitted, that the routine habit of trusting blindly to

milk, as came to be the rule a few years ago, is to be deprecated. It must not be forgotten, however, that in cases that digest milk well, are not constipated or rendered tympanitic and flatulent by it, and do not pass undigested flakes and curds of casein, there is no other article of diet to be compared with it. It contains the necessary food elements, is an excellent diuretic, (and one often forgets the urgent need of assistance to the laboring emunctories in typhoid when the waste matters are heaped up in excess at points of exit temporarily reduced in capacity.) It furnishes the fluid necessary, and is more easily digested in a larger number of cases than any other one food. Incidentally one may mention as a disadvantage the increased care of the mouth in typhoid which its use necessitates. No other food remains in the mouth to provide so suitable a nidus for bacterial growth, and it is quite probable that in some cases milk is sufficiently polluted in the act of swallowing to ensure its fermentation in the stomach and intestines, with the resulting vomiting, tympanites and intestinal stagnation that we all recognize as so evil. So that the milk-fed patient is especially in need of a mouth-wash; listerine and boracic acid, with or without black wash or glycerine, after every ingestion of milk, with the daily use of the tongue scraper if the tongue is very foul; a strip of ordinary whalebone for dress waists, bent into an oval, will do well.

Evidences of mal-assimilation of milk apart from those of dyspepsia already mentioned, are rapid emaciation, constipation, clay colored or white stools, tympanites, and even the scurvy-like bleeding gums and swollen tongue. In cases such as these, and in those to whom milk through mere distastefulness cannot be given, it may not be necessary to at once or entirely give it up. It should be given hot, or sterilized, or peptonized, or flavored with strong tea or coffee or cocoa in limited quantity, as junket, as whey, koumiss or buttermilk. An excellent form sometimes is the egg-nog, or milk-punch, or milk-jelly. The latter is made with rich milk, peptonized if necessary, an equal quantity of hot gelatine, flavored with sherry or rum, essence of lemon or orange, a pinch of salt and sugar to taste, eaten cold. The hot egg-nog is another excellent device, an egg beaten smooth poured into a half-pint of scalding (not boiling) milk, predigested if necessary, and either sweetened and flavored with an essence, making really a sort of custard, or salted and peppered or flavored with celery salt. Tomato soup, strained, consisting mainly of milk, is often welcomed as a change.

Should none of these devices succeed, the milk need not be entirely given up, or if so, may sometimes be resumed advantageously in a day or two.

Substitutes for it are mainly of two kinds: *a.* Animal broths of one sort or another, including gelatine, egg albumen, and the meat extracts of commerce, and *b.* farinaceous gruels.

Discussing the former *seriatim*, it may be said: 1. That good authorities look on proteid matters as risky from the tendency to *febris carnis*, "meat fever," from absorption of ptomaines produced in the intestine from the decomposing animal matter. Bacteriology certainly claims to prove that bacilli fed on beef juice produce more poisonous ptomaines

than those fed on milk, and physiological chemists claim that starches do not make ptomaines. This class of foods, too, is more apt to cause diarrhoea, especially beef and mutton broths. Veal and chicken broths seem to tend less in this direction.

2. That gelatine and egg-albumin are looked on as "tissue-repairers." The gelatine may be given with white of egg as "snow pudding," or as a jelly flavored with coffee, sherry, or rum; or with milk as already mentioned. The egg-lemonade or albumin-water, made by pouring into a weak lemonade or "orangeade" the unbeaten white of an egg, is more than a mere drink. Egg-albumin may also be given as sherry-flip.

3. That the commercial meat extracts if given are not to be considered valuable as food.

As to *b*.—Farinaceous gruels are occasionally of advantage but mainly as admixtures with milk, serving to prevent precipitation of large curds. The broad objection to them is that they are apt to excite tympany, as they are digested normally in the intestine, which is usually in these cases less fit for work than the stomach. The secret of success with them lies mainly in thorough cooking, and thorough straining, so that only the predigested diastatic portions may reach the patient. It has long been taught that prolonged cooking changes starch, partially at least, to diastase. Convenient forms are gruels of arrowroot, sago, tapioca, oatmeal, rice, barley (barley water.) Lately banana flour has been highly recommended by Gilman Thompson, of New York. The prepared foods, such as nourishing meal, Mellin's, Ridge's, Horlick's and Nestles, are also useful. They will usually do better, and be better liked, if they are not too sweet, and are often more acceptable with a little lemon juice or cream.

A word as to quantity. The daily amount should be carefully noted, apart from the drinks taken not as food but to quench thirst. Any untrained nurse can note this if started at it by the physician. The amount should never exceed the patient's powers of assimilation. It is painful to think of the amount of "stuffing" and consequent damage that occurs in the management of some cases. From one to three quarts of milk, or its equivalent, should suffice as food, and from two to three and a half quarts of water (including that given in the fluid food) are usually enough.

J. T. F.

THE RELATIONSHIP OF PROGNOSIS OF GENERAL HEALTH IN TYPHOID FEVER.

We are again entering upon the season of the year characterized by a great increase in the number of cases of Typhoid Fever—a disease to the study of which we return with untiring interest. Its wide distribution, occurring in city and hamlet throughout the length and breadth of the land; its victims, chosen from all grades of society; its assaults, alike on the strong and the weak, make its consideration a matter of universal concern. In no other disease do we have so many lamentable and unlooked for fatalities. In no disease is the prognosis so uncertain. That the gen-

eral health of the patient forms a poor guide in estimating his chances for recovery is only too well known, for it is a matter of frequent observation and comment, not only with the profession, but among the laity, that a strong, robust, healthy individual will succumb to the disease, while one of miserable physique and poor vitality will recover. So frequently is this the case, that some solution more satisfactory than accidental circumstances must be sought to explain away the apparent paradox.

We have happily passed the day in medical science when such occurrences were attributed to special visitations of Providence not to be too closely inquired into, at the which the fatalist would shrug his shoulders and sanctimoniously ascribe to divine interposition what was really the work of microbes.

That a person of strong and rugged constitution would, other things being equal, stand the best chance in resisting or throwing off a disease seems, at first sight, a fact so apparent as to be axiomatic.

In so long and exhausting struggle as Typhoid Fever is, one would naturally expect the organs and tissues of a robust individual particularly qualified to withstand the deleterious effects of the toxins and to maintain the body functions.

Moreover, scientifically considered, the individual cells would possess greater resisting power and should be better able to react in the formation of protective proteids in the blood serum, or in the elaboration of antitoxins to neutralize the poisons absorbed into the system; or according to the theory of Metschnikoff, greater numbers of healthy phagocytes should be attracted to the seat of attack to repel the invasion and feast on the invaders.

Why then is the prognosis not more favorable in this class of patients? The explanation that in strong individuals there is a greater quantity of the material necessary for the maintenance of the bacteria present in the system is no longer tenable since the theory of exhaustion is exploded.

Apart from the fact that particular cases might be explained by circumstances in connection therewith, there are some considerations which appear generally applicable in answering the question.

A strong individual does not so soon seek treatment, but goes about as long as possible trying to fight off the disease. Fagge, insisting on the necessity of complete rest from the very beginning of the fever, says, "that men are apt to do themselves irreparable injury by struggling on day after day," and quotes Sir Wm. Jenner, who declared that some of the worst cases of enteric fever which he had ever seen appeared to owe their gravity to the circumstance that the patient had travelled after having begun to feel ill, in order to reach home. There must be few clinicians who have not had abundant opportunities for observing cases where the prognosis was rendered serious by neglect of the patient to go to bed as soon as taken ill.

Again, being undisciplined by sickness, robust persons are usually much more difficult to manage, tossing about and using muscular exertion that not only taxes their strength, but tends to produce hæmorrhage or perforation—the accidental causes of death in Typhoid.

But probably the most important factor—and one too much lost sight of in making a prognosis—is, *that absorption, like all other physiological processes, is much more active in a healthy individual, and thus a greater quantity of the toxins generated by the bacteria will be taken into the system to produce the symptoms of the disease.* So also the tendency to general bacterial infections by organisms other than the *B. Typhosus*—mixed infections as by streptococci or staphylococci—is greater where absorption is more active. It would thus appear that the degree of toxæmia is, to a certain extent, governed by, and proportioned to, the strength of the individual.

And so, apparently, in our very strength there is a source of weakness—a consideration in which there should be at least, a grain of comfort to those who have not been endowed “by dissembling nature” with a strong physique. Were the dose of poison constant, no doubt the robust individual would stand by far the best chance for recovery, but here, as elsewhere, we have a beautiful example of the “law of compensation.”

H. B. A.

“TURN THE RASCALS OUT.”

It is to be regretted that any firm of manufacturing chemists whose methods and dealings with the drug trade have always been fair and considerate should find it necessary to protect themselves against the unprincipled substituter, as explained elsewhere in this issue. It is hard to believe the testimony which Fairchild Bros. & Foster have gathered against retail druggists, who have substituted other preparations when Fairchild's was distinctly ordered by physicians. We fail to comprehend what a druggist is thinking of when he permits such practices behind his prescription counter. Where is the profession of pharmacy drifting to if it has gotten to that point that a physician cannot depend upon a druggist filling his prescriptions with what is ordered? We should discredit these reports if they came from a less responsible source. Such practice if continued will work untold injury to the credit and standing of the entire pharmaceutical profession. Physicians are constantly claiming that one of the principal reasons why they handle their own medicines is that they are then sure of what they are administering. Any such wholesale accusation against the integrity of druggists is as unjust as it is untrue. There are thousands of conscientious, upright, honorable pharmacists, who would no more think of substituting in a prescription than they would of trying to pass a counterfeit bill. It is unfortunate that reflection must be cast upon these honest druggists by the acts of their unscrupulous brothers, but all of this hue and cry on the part of manufacturers about substituting cannot be ignored. Where there is so much smoke there must be some fire. Fairchild Bros. & Foster, by their action, place the charge where it belongs and this cannot fail to benefit honest dealers.

Every honest druggist owes it to himself and his profession to speak plainly on this subject. He should adopt the most strict rules for his own establishment; improve every opportunity to condemn the practice of substituting, and see that resolutions to this effect are passed by his local, State and national associations. Each druggist should make it a point to give his physicians and his customers to understand that when a prescription comes in to his establishment, it is filled with exactly what it calls for. There can be no middle ground, no compromise, no question on this point. Physicians who prescribe them and the manufacturers who make the goods must have no good cause for such complaints. The honor of the drug trade demands that this stigma be removed. It is not a question of dollars and cents alone, but professional honor is at stake, and we know that every honest pharmacist will join with us in the statement that the druggist who substitutes in his prescriptions is a disgrace to his profession.

PERSONAL.—Dr. Ryerson recently passed the "efficiency examination" required of Volunteer Medical Officers in England before a board appointed by the War Office. He has been appointed the representative in Canada of the British Red Cross Society. He returned home early last month and resumed his practice.

PERSONAL.—We notice with great regret the death of a daughter of Dr. Burt, of Paris, Ont., aged only 10 years. The accidental upsetting of a lamp as she was playing in her own home, burned her so seriously that she died soon after. Her father was himself seriously burned about the hands in attempting to extinguish the flames. His many acquaintances will extend him most hearty sympathy.

NEW OPERATION FOR REMOVAL OF ENLARGED CERVICAL GLANDS.—Dr. Dollinger in *Centralbl. f. Chir.* describes an operation for the subcutaneous extirpation of tuberculous lymph glands in the neck and submaxillary region. The posterior half of the scalp having been shaved, and the whole of the scalp and the skin of the affected side of the neck carefully disinfected, an incision is made commencing behind the external ear, and carried in a curved line with the convexity backward and downward, toward the middle line of the neck behind. The skin and superficial fascia are divided, and the anterior and lower flap is undermined by finger and elevator until the enlarged glands are reached; these, if they have not broken down or contracted firm adhesions with surrounding soft parts, may now be readily detached by the elevator and drawn through the wound. The skin forming the lower flap is so yielding, especially in women and children, that it is possible by this operation, the author asserts, to reach glands situated near the chin, and even those in the supra-clavicular region. The wound, when made under strict antiseptic precautions, heals quickly, and the scar is hidden by the new growth of hair.

THE TREATMENT OF GOUT AND OF URIC GRAVEL.—X. Delmis, M.D., in *Gazette des Hôpitaux*, recommends piperazine for these conditions. This substance is a crystalline organic base, soluble in water. The urate of piperazine is several times more soluble in water than the urate of lithia. Piperazine dissolves uric acid and uratic concretions in the proportion of half its volume. A number of physicians have proved that the first doses of piperazine causes an abundant expulsion of gravel and small stones, at the same time that a relief of the pain is manifested. In acute gout, piperazine causes a rapid amelioration of the pain and a progressive diminution of the swelling and redness. In chronic gout it appears to have an elective action upon tophi and upon the articular stiffness. The author has seen voluminous tophi disappear, and deformed limbs assume an almost normal aspect, thanks to the persistent usage of the remedy which is possible by its harmless action upon the organism.

In the scanty and tenacious secretion of bronchitis, Benedict (*Am. Therapist*) prescribes:

℞ Pilocapin Hydrochloratis	gr. i
Sanguinarin. Nitratis	gr. i
Syr. Tolutani et Aquæ, q. s. ad	℥ iii

Sig.: Teaspoonful four times a day.

DIACHYLON PLASTER IN ATONIC WOUNDS AND ULCERS.—Balduzzi, in *La Sem. Med.*, in atonic wounds or ulcers, either of spontaneous or operative origin, advises compression by means of strips of diachylon plaster. It has the advantage of being easily carried out, and is especially adapted to country practice. It is also of service in ulcers of the leg. In fact, in all atonic wounds of whatever origin, it exercises a beneficial action. The wound or ulcer should first be rendered aseptic, and this repeated at each time that the dressing is renewed.

GONORRHEA IN THE FEMALE.—This complaint though usually not so troublesome as in the male, sometimes gives continuous worry for months. A very sensible plan of treatment is given by Dr. H. C. Bloom, in the *Philadelphia Polyclinic*. It entails a little trouble, but the physician will be amply repaid for this by the results. He advises immediate washings of the vagina and contiguous parts with solution of hydrogen dioxide, which seems to be the one agent that searches every fold and crevice, cleansing and putting them in condition for the next step, which consists in the thorough application of silver nitrate in solution (sixty grains to the ounce) over the entire surface. This is at once followed by the careful packing of the vagina with powdered boric acid, and the placing of a small soft wool tampon. The patient is requested to return in twenty-four hours, when the tampon and packing are carefully taken out, with probably a cast or exfoliation of the destroyed or infected tissue—if not as a whole, then in large flakes and sufficiently deep to destroy the gonococcus in the papillary layer of the mucosa. This practically cures the gonorrhœa. A simple wound remains, and the next step is to wash this raw surface with a solution of mercuric chloride, 1:4000, follow-

ing this by loosely packing the vagina with moist iodoform gauze, which is allowed to remain seventy-two hours. Upon its removal the surface will present a clean, healed appearance. The rapid cure almost does away with the probability of future pelvic involvement.

HAY FEVER.—A prescription much lauded for this affection consists of—*Am Med. Rev.*

Eucalyptol.....	}	1 oz. each
Glycerine.....		
Tinct. opium.....		2 drachms
Aqua destil.....		to make 6 ozs.

S.—Use with atomizer three times a day.

AS A DEODORISER IN UTERINE CANCER.—

R.—Acid salicylici..... gr. vj.
 Sod. salicylat..... ℥ iii.
 Tinct. eucalypt..... ℥ vi.
 Aq. dest..... q. s. ad. ℥ vj.

M. Sig.—Two or three tablespoonfuls to a pint of water as an injection, frequently repeated.—*London Practitioner.*

FORMULA FOR ACUTE RHEUMATISM IN ADULTS:—

R.—Sodium salicylate..... ℥ iss.
 Potassium acetate..... ℥ i.
 Tinct. nux vom.....
 Tinct. digitalis, aa..... ℥ iv.
 Aq. menth, pip..... ℥ ss.
 Tinct. cinchona comp..... q. s. ad ℥ iv.

M. Sig.—℥ j every three hours.—*Phil. Polyclinic.*

VINEGAR AN ANTIDOTE TO CARBOLIC ACID.—Vinegar is said to neutralize the action of carbolic acid. Applied to the skin or mucous membrane burnt by carbolic it will cause the rapid disappearance of the characteristic whiteness as well as the anesthesia produced by the carbolic. It also prevents the formation of the slough. It also neutralizes the effect of carbolic in the stomach; therefore the first thing to do when carbolic has been swallowed is to make the patient drink vinegar mixed with equal parts of water and then wash the stomach.

THREE WARNINGS OF INTEREST TO OBSTETRICIANS.—K. Milton Mahlott, M.D., (*N.Y. Medical Journal*) says: "There are three warnings which obstetricians should have constantly in mind, which are almost uniformly neglected.

First.—Warn a woman not to neglect any kind of hemorrhage during pregnancy.

Second.—Warn a woman during labor that she must keep her hands away from her vulva and vagina so long as she is confined to bed.

Third.—Warn a nursing woman never to fall asleep with the infant at her breast."

A
Palatable
Laxative
Acting without pain
Or Nausea.

WEYTH'S

Medicated Fruit Syrup,

The New Cathartic Aperient and Laxative.

We make many hundred cathartic formulas of pills, elixirs, syrups, and fluid extracts; and for that reason, our judgment in giving preference to the MEDICATED FRUIT SYRUP, we feel is worthy of serious consideration from medical men.

The taste is so agreeable that even very young children will take it without objection; the addition of prunes and figs having been made to render the taste agreeable rather than for any decided medical effect. It is composed of Cascara, Senna, Jalap, Ipecac, Podophyllin, Rochelle Salts and Phosphate of Soda.

The absence of any narcotic or anodyne in the preparation, physicians will recognize is of great moment, as many of the proprietary and empirical cathartic and laxative syrups, put up and advertised for popular use, are said to contain either or both.

It will be found specially useful and acceptable to women, whose delicate constitutions require a gentle and safe remedy during all conditions of health, as well as to children and infants, the dose being regulated to suit all ages and physical conditions; a few drops can be given safely, and in a few minutes will relieve the flatulence of very young babies, correcting the tendency of recurrence.

JOHN WYETH & BRO.,

DAVIS & LAWRENCE CO., Ltd., General Agents, Montreal.

SYR. HYPOPHOS. CO., FELLOWS

CONTAINS

The Essential Elements of the Animal Organization—Potash and Lime;

The Oxidizing Elements—Iron and Manganese;

The Tonics—Quinine and Strychnine

And the Vitalizing Constituent—Phosphorus; the whole combined in the form of a Syrup, with a slight alkaline reaction.

It differs in its effects from all Analogous Preparations: and it possesses the important properties of being pleasant to the taste, easily borne by the stomach, and harmless under prolonged use.

It has gained a Wide Reputation, particularly in the treatment of Pulmonary Tuberculosis, Chronic Bronchitis, and other affections of the respiratory organs. It has also been employed with much success in various nervous and debilitating diseases.

Its Curative Power is largely attributable to its stimulant, tonic and nutritive properties, by means of which the energy of the system is recruited.

Its Action is Prompt: It stimulates the appetite and the digestion, it promotes assimilation, and it enters directly into the circulation with the food products.

The prescribed dose produces a feeling of buoyancy and removes depression and melancholy; hence the preparation is of great value in the treatment of nervous and mental affections. From the fact, also, that it exerts a double tonic influence, and induces a healthy flow of the secretions, its use is indicated in a wide range of diseases.

When prescribing the Syrup please write, "Syr. Hypophos. FELLOWS." As a further precaution it is advisable to order in original bottles.

For Sale by all Druggists,

DAVIS & LAWRENCE CO., (Ltd.), Wholesale Agents, Montreal.

CREASOTE IN GONORRHOEA.—Asmus has reported fifty-eight cases (all in the male) of gonorrhoea successfully treated with injections of a from two to ten per mille emulsion of creasote. The discharge quickly decreased, became mucoid, and then ceased altogether. The patients recovered more rapidly than under the ordinary methods of treatment; complications developed but rarely, and no relapses occurred. In addition an anæsthetic action of the urethral mucous membrane seemed to be exerted by the creasote.

CURETTING AFTER ABORTION.—(*Société Médicale de Genève.*)—Dr. Ch. Patrei, one of the surgeons to the Geneva Maternity, read a paper on this subject, expressing the opinion that the curette was not sufficiently used in cases of abortion. He believes in early intervention to prevent complications, rather than efforts to combat them when they do appear. He has used the curette in 211 cases at the Maternity, 134 times for abortion and 77 times for chronic metritis. The hemostatic effect in abortion immediate, the flow of blood ceasing as soon as the uterine cavity was relieved of its contents. In these cases the hemorrhage should serve as a guide to the operator, who should continue curetting until all flow has stopped, or, in other words, until the last of the *débris* has been eliminated.

Publications of

LEA BROTHERS & CO.

Philadelphia
and New York.

CANADIAN REPRESENTATIVES: MCAINSH & KILGOUR.

A Text Book on Nervous Diseases—Edited by F. X. Dercum, M.D., Chemical Professor of Diseases of the Nervous System in the Jefferson Medical College, Philadelphia. In one handsome octavo volume of 1046 pages, with 341 engravings and 7 colored plates. Cloth \$6.50; leather, \$7.50 net.

This goodly-sized volume embodies the work of twenty-two leading authorities in neurology in the different and special lines of their individual fitness for the same. The general arrangement is systematic and practical.—*Medical Record*, New York.

Diseases of Infancy and Childhood—By J. Lewis Smith, M.D., Clinical Professor of Diseases of Children in the Bellevue Hospital Medical College, New York. New (8th) edition thoroughly revised and re-written and much enlarged. Handsome octavo of 983 pages, with 273 illustrations and 4 full-page plates. Cloth, \$4.50; leather, \$5.50.

The leading position achieved by Smith on children as the standard text-book and work of reference on its important subject is shown by the demand for eight editions. In the present issue the subject of surgical diseases of children has been added. The new edition will be used by students and practitioners as a complete and authoritative guide to the surgical as well as the medical aspect of the diseases of children.—*Canada Lancet*.

A Text-Book of Practical Therapeutics—With especial reference to the application of remedial measures to disease and their employment upon a rational basis. By Hobart Amory Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. With special chapters by Drs. G. E. DeSchweinitz, Edward Martin and Barton C. Hirst. New (5th) edition thoroughly revised and much enlarged. In one octavo volume of 740 pages. Cloth, \$3.75; leather, \$4.75.

The fifth edition of this valuable book in as many years indicates in a convincing manner the high esteem in which it is held by the profession in America. The editor has a high reputation, not only as a teacher, but also as an experimental pharmacologist. We find, therefore, as we might expect, that the physiological action of all the drugs as far as it is known, is very clearly stated. Above all things, however, the work is a practical one and the busy practitioner will find that all information respecting practical therapeutics is here made easy of acquisition.—*Montreal Medical Journal*.

The Pathology and Treatment of Venereal Diseases—By Robert W. Taylor, A.M., M.D., Clinical Professor of Venereal Diseases in the College of Physicians and Surgeons, New York. In one very handsome octavo volume of 1002 pages, with 230 engravings and 7 colored plates. Cloth, \$5.50; leather, \$6.50.

In the treatment nothing has been neglected. In its completeness the book leaves almost nothing to be desired. It is a veritable storehouse of our knowledge of the venereal diseases. It is commended as a conservative, practical, full exposition of venereal diseases of the greatest value.—*Chicago Clinical Review*.

Dunglison's Medical Dictionary—Containing a Full Explanation of the Various Subjects and Terms of Anatomy, Physiology, Medical Chemistry, Pharmacy, Pharmacology, Therapeutics, Medicine, Hygiene, Dietetics, Pathology, Surgery, Bacteriology, Ophthalmology, Otology, Laryngology, Dermatology, Gynecology, Obstetrics, Pediatrics, Medical Jurisprudence and Dentistry, etc., etc. By Robley Dunglison, M.D., LL.D., late Professor of Institutes of Medicine in the Jefferson Medical College of Philadelphia. Edited by Richard J. Dunglison, A.M., M.D. New (21st) edition, thoroughly revised, greatly enlarged and improved, with the Pronunciation, Accentuation and Derivation of the Terms. In one magnificent imperial octavo volume of 1206 pages, with Appendix up to 1895. Cloth, \$7.00; leather, \$8.00.

Any book that, from public demand and appreciation, reaches a twenty-first edition may safely be recognized as a credit to both its author and publisher. Pronunciation is now for the first time introduced. It is indicated by a simple and obvious system of phonetic spelling, fully explained in the introduction. A vast amount of information will be found in the compiled tables, etc. The work should be in the hands of every student and physician, and will be found a most useful companion.—*Canadian Practitioner*.

Sent Carriage Prepaid on Receipt of Price.

MCAINSH & KILGOUR, CONFEDERATION LIFE BUILDING, TORONTO.

HONESTY Our Motto

The Business in "Safford" Radiators has been built on honest methods.



Millions of Safford Radiators have been made and sold, and none returned because of defective workmanship. They are in use in every civilized country on the globe's surface.

Safford . . .

THE WORLD'S BEST

. . . Radiators

Are the Crowning Triumph of Genius.

MADE WITHOUT BOLTS, PACKING
OR WASHERS, AND

NEVER GET OUT OF REPAIR.

SAFFORD . . . THE KING OF RADIATORS

Are built in a vast number of shapes
and a variety of styles.

Conveniently arranged to suit the various
turns in the walls of a modern house.

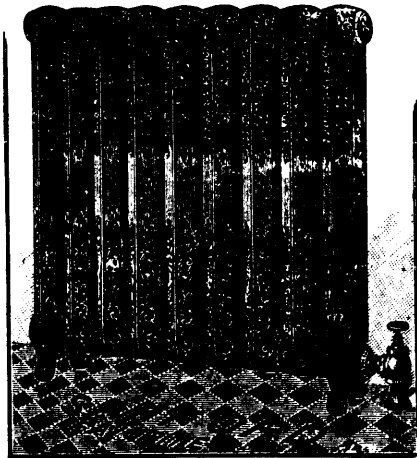


*Hot Water and Steam are the
Cheapest Heating Systems
of the age.*

Full particulars from

THE TORONTO RADIATOR MFG. CO., LTD.
TORONTO, ONT.

AND . . . H. McLAREN & CO., Montrea¹.

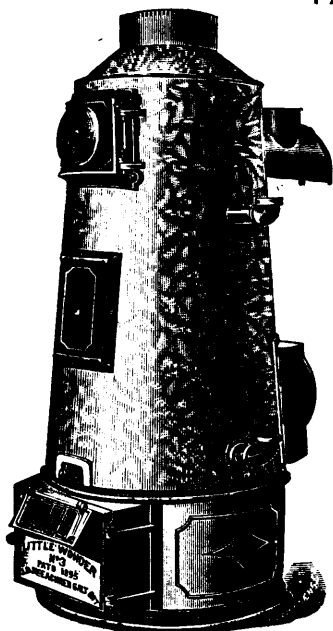


THE LITTLE WONDER

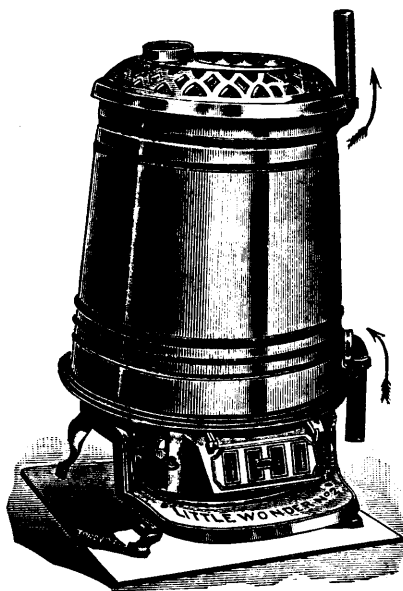
—AND—

New Hot Water Heating and Ventilating System.

PATENTED 1896.



As used in Basement.



As used on same level as Radiators.

This Hot Water Boiler and System takes the above name for the following reasons:—

- 1st. It is the smallest Hot Water Boiler in the market, of equal heating capacity.
- 2nd. It is the wonder of all who see it, that such a small Boiler, using so small a quantity of fuel, should heat such a large space and get up the required heat so quickly.
- 3rd. All practical observers wonder at such an efficient, neat and durable hot water heating system being supplied at such small cost.

It costs about half as much as the hot water systems now in general use, and consumes from half to two-thirds the quantity of fuel.

For illustrated catalogues and full particulars of this and our Blast Heating, Drying and Ventilating Systems, address

The McEachren Heating and Ventilating Company,

MANUFACTURERS,

GALT, ONT. - CANADA.

Established 1850. Incorporated by Act of Parliament.
TRINITY MEDICAL COLLEGE, TORONTO.

In affiliation with the University of Trinity College, The University of Toronto, Queen's University, The University of Manitoba, and specially recognized by the several Royal Colleges of Physicians and Surgeons in Great Britain.

THE WINTER SESSION OF 1896-7 WILL COMMENCE OCTOBER 1, 1896.

FACULTY.
PROFESSORS.

WALTER B. GEIKIE, M.D., C.M., D.C.L., F.R.C.S.E., L.R.C.P., Lond.; Dean of the Faculty; Member of the Council of the College of Physicians and Surgeons of Ont.; Member of the Consulting Staff of the Toronto General Hospital.—Holyrood Villa, 62 Maitland Street.
Professor of Principles and Practice of Medicine.

J. ALGERNON TEMPLE, M.D., C.M., M.R.C.S., Eng., Gynecologist to the Toronto General Hospital; Physician to the Burnside Lying-in Hospital.—205 Simcoe St.
Professor in Obstetrics and Gynecology.

THOMAS KIRKLAND, M.A., Principal of Normal School, Toronto.—432 Jarvis Street.
Professor in General Chemistry and Botany.

C. W. COVERNTON, M.D., C.M., M.R.C.S., Eng., Lic. Soc. Apoth., Lond.; Ex-Chairman and Member of the Provincial Board of Health.
Emeritus Prof. of Medical Jurisprudence and Toxicology.

FRED. LEM. GRASETT, M.D., C.M., Edin. Univ.; F.R.C.S.E.; M.R.C.S. Eng.; Fell. Obstet. Soc., Edin.; Member of the Acting Surgical Staff of the Toronto General Hospital; Physician to the Burnside Lying-in Hospital; Member of the Consulting Staff of the Toronto Dispensary.—203 Simcoe St.
Professor of Principles and Practice of Surgery, and of Clinical Surgery.

W. T. STUART, M.D., C.M., Trin. Coll., and M.B. Univ. Toronto; Professor of Chemistry, Dental College, Toronto.—195 Spadina Avenue.
Professor of Practical and Analytical Chemistry.

CHARLES SHIPARD, M.D., C.M., Fell. Trin. Med. Coll., M.R.C.S., Eng.; Member of the Acting Staff of the Toronto General Hospital; Consulting Physician to the Victoria Hospital for Sick Children.—314 Jarvis Street.
Professor of Physiology and Histology, and of Clinical Medicine.

G. STERLING RYERSON, M.D., C.M., L.R.C.P., L.R.C.S. Edin., Surgeon to the Eye and Ear Dept., Toronto General Hospital, and the Victoria Hospital for Sick Children.—60 College Ave.
Professor of Ophthalmology and Otolology.

LECTURERS, DEMONSTRATORS,

E. A. SPILSBURY, M.D., C.M., Trin. Univ.; Surgeon to the Nose and Throat Department, Toronto General Hospital.—189 College Street.
Lecturer on Laryngology and Rhinology.

ALLAN BAINES, M.D., C.M., Fell. Trin. Med. Coll.; L.R.C.P., Lond.; Physician Out-door Department Toronto General Hospital; Physician to the Victoria Hospital for Sick Children.—194 Simcoe Street.
Associate Professor of Clinical Medicine.

D. J. GIBB WISHART, B.A., Tor. Univ., M.D., C.M., L.R.C.P., Lond.; Professor of Ophthalmology and Otolology, Woman's Medical College; Surgeon Eye and Ear Department, Hospital for Sick Children.—47 Grosvenor Street.
Senior Demonstrator of Anatomy.

J. T. FOTHERINGHAM, B.A., Tor. Univ.; M.D., C.M., Trin. Univ.; Physician Out-door Dept., Toronto General Hospital and the Hospital for Sick Children; Professor of Materia Medica, College of Pharmacy.—492 Yonge St.
Lecturer on Therapeutics and on Clinical Medicine at Toronto General Hospital.

CLINICAL TEACHING.—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 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 Skin Diseases, and the Diseases of Women and Children. The Burnside Lying-in Hospital, amalgamated with the Toronto General Hospital, has recently had the 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 in practice. The Mercer Eye and Ear Infirmary is also amalgamated with the Toronto General Hospital, and affords special facilities for students in this department.

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, in-door and bedside, in the Hospital, by the respective members of the in-door and out-door Hospital Staff, which has been recently largely increased.

FEES FOR THE COURSE.—The Fee for Anatomy, Surgery, Practice of Medicine, Obstetrics, Materia Medica, Physiology, General Chemistry, Clinical Medicine and Clinical Surgery, \$12 each. Applied Anatomy, \$10. Practical Anatomy, \$10. Practical Chemistry, Normal Histology and Pathological Histology, \$8 each. Therapeutics, and Medical Jurisprudence, \$6 each. Botany and Sanitary Science, \$5 each. Registration Fee (payable once only), \$5. Students are free in all the regular branches after having paid for two full courses. Surgical Appliances is an optional branch; fee, \$5. Full information respecting Lectures, Fees, Gold and Silver Medals, Scholarships, Certificates of Honor, Graduation, Diplomas, Fellowship, etc., will be given in the Annual Announcement.

W. B. GEIKIE, M.D., D.C.L., Dean, 52 Maitland Street.

LUKE TESKEY, M.D., C.M., M.R.C.S., Eng., Member of the Acting Surgical Staff of the Toronto General Hospital, Member of Staff Hospital for Sick Children, and Professor of Oral Surgery, Dental College, Toronto.—612 Spadina Avenue.
Professor of Anatomy and of Clinical Surgery.

JOHN L. DAVIDSON, B.A., Univ. Tor., M.D., C.M., M.R.C.S. Eng.; Member of the Acting Staff of the Toronto General Hospital.—12 Charles Street.
Professor of Clinical Medicine.

G. A. BINGHAM, M.D., C.M., Trin. Coll., M.B. Univ. Tor.; Surgeon Out-door Department, Toronto General Hospital; Surgeon to the Hospital for Sick Children.—64 Isabella Street.
Professor of Applied Anatomy, and Associate Professor of Clinical Surgery.

NEWTON ALBERT POWELL, M.D., C.M. Trin. Coll., M.D. Bellevue Hosp. Med. Coll., N.Y.; Lecturer on the Practice of Surgery, Woman's Medical College, Toronto; Surgeon Out-door Dept., Toronto General Hospital.—Cor. College and McCaul Streets.
Professor of Medical Jurisprudence and Toxicology, and Lecturer on Clinical Surgery and Surgical Appliances.

D. GILBERT GORDON, B.A., Tor. Univ.; M.D., C.M., Trin. Univ.; L.R.C.S. & P. Edin.; L.F.P. & S. Glasgow; Physician Out-door Department, Toronto General Hospital.—646 Spadina Avenue.
Professor of Sanitary Science, and Lecturer on Clinical Medicine.

E. B. SHUTTLEWORTH, Phar. D., F.C.S.; Late Principal and Professor of Chemistry and Pharmacy, Ontario College of Pharmacy.—220 Sherbourne Street.
Professor of Materia Medica and Pharmacy, etc.

H. B. ANDERSON, M.D., C.M., Fell. Trin. Med. Coll.; Pathologist to Toronto General Hospital.—233 Wellesley Street.
Professor of Pathology, and in Charge of the Trinity Microscopic Pathological Laboratory Toronto.

INSTRUCTORS AND ASSISTANTS.

H. B. ANDERSON, M.D., C.M., Fell. Trin. Med. Coll.; Pathologist to Toronto General Hospital.—233 Wellesley Street.
Second Demonstrator of Anatomy.

C. A. TEMPLE, M.D., C.M.—315 Spadina Avenue.
 FREDERICK FENTON, M.D., C.M.—Cor. Scollard and York Streets.
 A. H. GARRATT, M.D., C.M.—160 Bay Street.
 HAROLD C. PARSONS, B.A., M.D., C.M.
Assistants in Practical Anatomy.

C. TROW, M.D., C.M., Trin. Univ., L.R.C.P., Lond. Surgeon to the Eye and Ear Department of Toronto General Hospital.—57 Carlton Street.
Clinical Lecturer on Diseases of the Eye and Ear.

W. H. PEPLER, M.D., C.M., Fell. Trin. Med. Coll.; L.R.C.P., Lond.
Assistant in Pathology.

FRED. FENTON, M.D., C.M.
Assistant in Histology.

W. B. GEIKIE, M.D., D.C.L., Dean, 52 Maitland Street.

- 1897 LIST. -

The J. STEVENS & SONS CO. Ltd.

(Opposite Union Station.)

145 Wellington Street West, - - TORONTO.

The success attending the production of our 1896 List (Mailing List), 5,000 copies of which have been distributed and the edition now being run out, has caused us to push on the 1897 edition, which will be larger, more fully illustrated, and the prices yet lower than in the previous one.

. . A Few Lines From the New Catalogue. . .

Anesthetic Inhaler		Clinical Thermometers	
Allis'	\$ 1 50	German, Plain indestructible index....	\$ 40
Schimmelbusch	75	" Magnifying.....	50
Artery Forceps		J. S. & Son's Hospital	75
Pean's German	40	" Lens.....	1 25
" Patent Lock	70	Endoscopes	
S. Wells English.....	1 45	Klotz, solid silver	2 00
Tait's German	45	Otis, plated.....	1 00
" Genuine English.....	1 25	Eustachean Inflators	
Aspirators		Politzer's, 8 oz., with valve.....	90
Exploring and Hypo.....	2 00	Woake's English.....	1 00
Potains Codman Pattern.....	7 00	Gags, Mouth	
Antitoxine Syringes		Denhart's German.....	1 50
Aseptic Asbestos Piston.....	2 00	Goodwillies	3 00
Roux's Aseptic, 6 Rubber pistons.....	4 50	Listers	5 00
Aural Instruments		O. Dwyers.....	1 45
Applicators, Alum, doz.....	1 00	Glassware	
" Allens.....	15	Cylinders, ground lid.....	75
Bigelow's Apparatus		Solution Bowls, 10 in crystal	90
Evacuating with 2 Canulas.....	10 75	Hypodermic Syringes	
Bougies		A—Hard Rubber, Patent Piston, 2	
Nasal Years'eyes.....	25	Needles	45
Urethral, yellow linen, G.E.....	20	B—American Climax, Finger Bars, Ex-	
English, web.....	10	panding Piston, 2 Needles, 2 Vials....	85
Thompson's	25	Hypodermic Needles	
Filliform bulbous.....	20	Fine, Standard Thread, doz.....	1 00
Buggy Cases		Superior Standard.....	15
J. S. & Sons Co., special.....	8 00	Non Plus Ultra.....	25
Catheters		Laryngoscopic Forehead Mirrors	
Gum E., Eng. Commercial.....	6	3 in. Mirrors with Head-band.....	1 75
" Best.....	13	3 in. " Superior, Bosworths.....	2 25
" Olive, yellow linen	10	3½ in. " " ".....	2 50
" Sir H. T.....	25	4 in. " " ".....	2 75
Plated, Male, Common.....	25	Minor Surgery Insts.	
		English Fluted (solid) Steel, Best Qual.,	
		Scalpels.....	1 10
		German Aseptic, Best Qual., Scalpels.	40

This List will be ready for distribution October next. Our Mailing Department has doubled its work in the past six months. Our imports of J. STEVENS & SONS FINE ENGLISH GOODS are still increasing.

Our new Laboratory for packing Antiseptic Dressings is now in operation.

THE J. STEVENS & SONS CO. LTD.

INCORPORATED 1895.

WHEELER'S TISSUE PHOSPHATES.

Wheeler's Compound Elixir of Phosphates and Calisaya. A Nerve Food and Nutritive Tonic, for the treatment of Consumption, Bronchitis, Scrofula and all forms of Nervous Debility. This elegant preparation combines in an agreeable Aromatic Cordial, acceptable to the most irritable conditions of the stomach, Bone-Calcium Phosphate $\text{Ca}_2\text{P}_2\text{O}_4$, Sodium Phosphate $\text{Na}_2\text{H}_2\text{P}_2\text{O}_4$, Ferrous Phosphate Fe_2PO_4 , Trihydrogen Phosphate $\text{H}_3\text{P}_2\text{O}_4$, and the active principles of Calisaya and Wild Cherry.

The special indication of this Combination of Phosphates in Spinal Affections, Caries, Necrosis, Ununited Fractures, Marasmus, Poorly Developed Children, Retarded Dentition, Alcohol, Opium, Tobacco Habit, Gestation and Lactation to promote Development, etc., and as a **PHYSIOLOGICAL RESTORATIVE** in Sexual Debility and all used-up conditions of the Nervous System should receive the careful attention of good therapeutists.

NOTABLE PROPERTIES. As reliable in Dyspepsia as Quinine in Ague. Secures the largest percentage of benefit in Consumption and all wasting diseases, by determining the perfect digestion and assimilation of food. When using it, Cod Liver Oil may be taken without repugnance. It renders success possible in treating Chronic Diseases of Women and Children, who take it with pleasure for prolonged periods, a factor essential to maintain the good will of the patient. Being a Tissue Constructive, it is the best *general utility compound* for Tonic Restorative purposes we have, no mischievous effects resulting from exhibiting it in any possible morbid condition of the system. When Strychnia is desirable, use the following:

R. Wheeler's Tissue Phosphates, one bottle; Liquor Strychnia, half fluid, drachm

M. In Dyspepsia with Constipation, all forms of Nerve Prostration and constitutions of low vitality.

DOSE.—For an adult one tablespoonful three times a day, after eating; from seven to twelve years of age, one dessert-spoonful; from two to seven, one teaspoonful. For infants, from five to twenty drops, according to age.

Prepared at the Chemical Laboratory of T. B. WHEELER, M.D., MONTREAL, P.Q.

To prevent substitution, put up in pound bottles and sold by all Druggists at One Dollar.

The Jefferson Medical College of Philadelphia.

PROFESSORS—J. M. DaCosta, M.D., LL.D.; Robert S. Bartholow, M.D., LL.D.; Henry C. Chapman, M.D.; John H. Brinton, M.D.; Theophilus Parvin, M.D., LL.D.; James W. Holland, M.D.; William S. Forbes, M.D.; William W. Keen, M.D., LL.D.; H. A. Hare, M.D.; James C. Wilson, M.D.; E. E. Montgomery, M.D.; W. M. L. Coplin, M.D.; J. Solis-Cohen, M.D.; Henry W. Stelwagon, M.D.; H. Augustus Wilson, M.D.; E. E. Graham, M.D.; F. X. Dercum, M.D.; George de Schweinitz, M.D.; Orville Horwitz, M.D.; W. J. Hearn, M.D.; E. P. Davis, M.D.; S. MacCuen Smith, M.D.; Howard F. Hansell, M.D.; A. P. Brubaker, M.D.

Four years of graded instruction required. The annual announcement will be sent on application to

J. W. HOLLAND, M.D., Dean.

LIST OF TRAINED NURSES.

Terms for insertion \$1 per annum. New names can be added at any time.

Name.	Addr. ss.	Tel.	Rates.
Toronto General Hospital.			
EASTWOOD, Miss L.	10 Carlton St.	3398	\$15 to \$18
KAY, Miss A.	5 Clarence Sq	2663.	"
MOUNSEY, Mrs.	"	"	"
PHAIR, Mrs.	"	"	"
SMITH, Miss K.	"	"	"
Children's Hospital.			
MILLAR, Miss E.	423 Church St.	3357.	"
Kingston General.			
PARSONS, Mrs. L.	419 Church St.	3290.	"
WILLSON, Miss E.	"	4354.	"
MIDDLETON, Miss L.	"	3290.	"
KEITH, Miss M. S.	Lindsay, Ont. Box 337.	"	"
ANDERSON, Miss.	10 Carlton St.	3290.	"
McKAY, Miss.	"	"	"

\$1,000

Will purchase a practice in an American city; daily cash receipts exceeding \$10.00. Healthy locality and pleasant work. Write for address to

The Canada Lancet,

.....TORONTO

Young Man Preferred.

Massage and Mechanico-Therapy.

Mr. George Crompton

TAKES pleasure in announcing to the Medical Profession that he is prepared to treat in the most modern form

PATIENTS REQUIRING MASSAGE.

First class accommodation for patients from a distance. Address—

32 Walton St., Toronto.

'Phone No. 865.

The best of references given by the leading Physicians in the City.

A. E. AMES & CO.,

BANKERS & BROKERS,

STOCKS bought and sold for cash or on margin.

DEBENTURES—Municipal, Railway and Industrial Co.—bought and sold on commission or otherwise.

DEPOSITS received at interest, subject to cheque on demand

ONLY TO LOAN on stock and bond collateral.

New York and Sterling Exchange.

MANHATTAN
Eye, Ear and Throat Hospital,
 103 Park Ave., NEW YORK CITY.

Special clinical instruction will be given to graduates and undergraduates by Surgeons in Throat and Nose Department of the Hospital.

Course six weeks, in a class limited to four members. Fee \$20. For particulars address

WALTER F. CHAPPELL, M.D., (Tor.),
 15 East 38th Street,
 NEW YORK

DR. RYERSON

Begs to announce to the Profession that he has opened a

PRIVATE HOSPITAL

for

EYE and EAR CASES

Apply

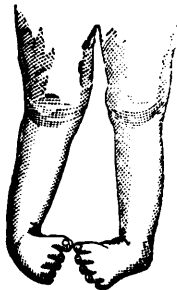
60 College Street, Toronto.

AUTHORS & COX,

135 CHURCH ST., TORONTO,

TELEPHONE 2267.

Have had over twenty years experience in the manufacture of



Artificial Limbs

TRUSSES AND
Orthopædic Instruments

Spinal Supports, Instruments for Hip Disease, Disease of the Knee and Ankle, Bow Legs, Knock Knees, Club Foot Shoes, Crutches, etc., etc.

REFERENCES:—Any of the leading Surgeons in Toronto.

WYATT & CO., B OKERS,

Canada Life Building,

. . Toronto.

Stocks Bought and Sold on Closest Margins. Chicago, New York, Montreal and all other points.

H. O'HARA & CO.,

(Members Toronto Stock Exchange).

Stock and Debentures Brokers,

24 Toronto Street,
TORONTO.

Shares bought in Toronto, Montreal and New York for cash or on margin carried at lowest rates of interest.

Telephone 915

The COAST LINE to MACKINAC

— TAKE THE —



TO MACKINAC
 DETROIT
 PETOSKEY
 CHICAGO

2 New Steel Passenger Steamers

The Greatest Perfection yet attained in Boat Construction—Luxurious Equipment, Artistic Furnishing, Decoration and Efficient Service, insuring the highest degree of

COMFORT, SPEED AND SAFETY.

FOUR TRIPS PER WEEK BETWEEN

Toledo, Detroit & Mackinac

PETOSKEY, "THE SOO," MARQUETTE, AND DULUTH.

LOW RATES to Picturesque Mackinac and Return, including Meals and Berths. From Cleveland, \$18; from Toledo, \$15; from Detroit, \$13.50.

EVERY EVENING

Between Detroit and Cleveland

Connecting at Cleveland with Earliest Trains for all points East, South and Southwest and at Detroit for all points North and Northwest.

Sunday Trips June, July, August and September Only.

EVERY DAY BETWEEN

Cleveland, Put-in-Bay & Toledo

Send for Illustrated Pamphlet. Address

A. A. SCHANTZ, C. P. A., DETROIT, MICH.

The Detroit and Cleveland Steam Nav. Co.

THE NEW YORK
School of Clinical Medicine

328 West 42nd Street.

This school of special instruction for practitioners of medicine and surgery is modelled upon the plans of the most successful European institutions, modified to suit the practical requirements of American physicians.

No lectures are delivered.

All teaching is individual.

The classes are no larger than will allow each member to personally treat as many patients as he possibly can.

The members of classes act as assistants and operate under the guidance of their teachers. Special attention is given to the most modern methods of diagnosis and treatment of the routine cases which the practitioner encounters daily.

The satisfactory results obtained obliges the school to continually increase its teaching facilities, as will be announced from time to time.

Courses may begin at any time, in classes which are not filled.

LIST OF TEACHERS.

Prof. Carl Beck, M.D., Visiting Surgeon to St. Mark's Hospital, Surgeon to the German Poliklinik and to the West Side German Dispensary. *Surgery.*

Prof. Thomas W. Busche, M.D., Attending Surgeon in the Department for Laryngology, Rhinology and Otology of the German Poliklinik. *Laryngology.*

Prof. S. Henry Dessau, M.D., Pediatricist Mount Sinai Hospital Dispensary, Senior Pediatricist West Side German Dispensary, Attending Physician Montefiore Home for Chronic Invalids. *Pediatrics.*

Prof. Henry J. Garrigues, A.M., M.D., Consulting Obstetric Surgeon to the New York Maternity Hospital, Gynecologist to St. Mark's Hospital, the German Dispensary, and the West Side German Dispensary. *Gynecology and Obstetrics.*

Prof. Augustin H. Goelet, M.D., Gynecologist to the West Side German Dispensary. *Gynecology.*

Prof. Wm. S. Gottheil, M.D., Dermatologist to the Lebanon Hospital, the West Side German Dispensary and the North Western Dispensary. *Dermatology.*

Prof. Henry S. Oppenheimer, M.D., Ophthalmic Surgeon to the Montefiore Home, Oculist in the German Poliklinik. *Ophthalmology.*

Prof. Frank D. Skeel, A.M., M.D., Ophthalmic Surgeon to the New York Eye and Ear Infirmary, Ophthalmic Surgeon to St. Joseph's Hospital and Surgeon to Mott Haven Eye Dispensary. *Ophthalmology.*

Prof. Ferd. C. Valentine, M.D., Genito Urinary Surgeon, West Side German Dispensary. *Genito-Urinary Diseases.*

Prof. Ludwig Weiss, M.D., Dermatologist to the German Poliklinik. *Dermatology.*

Prof. Z. P. Zemansky, M.D., Attending Physician to Lebanon Hospital, Attending Physician to the West Side German Dispensary. *Practice of Medicine.*

Also an ample corps of Associate Professors, Instructors and Clinical Assistants.

For detailed announcements and further information, apply to

FERD. C. VALENTINE, M.D.

SECRETARY NEW YORK SCHOOL OF CLINICAL MEDICINE

328 West 42nd Street,

NEW YORK.

BRASS AND IRON BEDSTEADS

TILES, GRATES,
HEARTHES, MANTELS.

RICE LEWIS & SON (Ltd.)

Cor. King and Victoria Sts., Toronto.

Asthma : Consumption : Bronchitis

AND ALL DISEASES OF THE LUNGS AND AIR PASSAGES.

THE AMICK CHEMICAL TREATMENT

CURES THESE DISEASES WHEN ALL OTHERS FAIL.

MORE THAN 100,000 CASES TREATED BY

MORE THAN 40,000 PHYSICIANS.

Largest Percentage of Actual Cures Known. Merits of Method now fully established by unimpeachable evidence open to all. These medicines are the best and purest drugs science can produce. Physicians may prescribe them with implicit confidence and with absolute certainty of better results than may be obtained from any other known line of treatment.

THE AMICK CHEMICAL COMPANY,

166 WEST SEVENTH STREET,

CINCINNATI, OHIO.

Comfortable Riding, if the

Christy Anatomical Saddle

(THE PERFECTION IN SADDLE CONSTRUCTION)

IS FITTED TO YOUR BICYCLE.

The Christy Anatomical Saddle is moulded in anatomical conformity to the parts; comfortable cushions are so placed as to receive the bones prominent of the pelvis, and the frame being constructed of metal, maintains its correct shape under all circumstances. The horn of the saddle is just long enough to afford perfect security to the rider; it does not interfere in an uncomfortable way with the clothing, and this feature especially recommends it and is of great importance to women.

Manufacturers and dealers are notified that the Christy Saddle is fully protected by mechanical and design patents and infringers will be prosecuted.

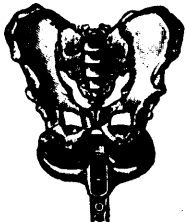
PRICE, - - \$5.00.

A. G. SPALDING & BROS., NEW YORK, CHICAGO, PHILADELPHIA,

Factory at CHICOPEE FALLS, MASS.

LARGEST MANUFACTURERS IN THE WORLD OF

Bicycles, Bicycle Sundries and Bicycle Clothing.



Shows pelvis as it rests on Christy Saddle.



Shows pelvis as it rest on Ordinary Saddle.

It sterilizes the bowel

possesses microbicidal powers of a high order, and yet is absolutely free from toxic properties or irritant effects upon the mucous membrane. Its high degree of antiseptic potency is due to the combined action of Formic Aldehyde 0.2 per cent. and Aceto Boro-glyceride 5 per cent., aided and enhanced by the balsamic principles of Pinus Pumilio, Eucalyptus, Myrrh, Storax and Benzoin.

A full description of the properties and therapy of

"Borolyptol"
(FORMOLYPTOL)

by inhibiting and destroying the many varieties of germ life which infest the alimentary tube in typhoid fever and other

GASTRO-INTESTINAL DISORDERS

attended with fermentation.

"Borolyptol"
(FORMOLYPTOL)

together with bacteriological reports, will be sent upon request by

THE PALISADE MANUFACTURING CO.
YONKERS, N. Y.

PEPTOGENIC MILK POWDER

The one and only means of modifying Cows' Milk to a correspondence with Mothers' Milk.

FORMULA :

Peptogenic Milk Powder,	-	-	-	-	one measure.
Water,	-	-	-	-	one-half pint.
Milk,	-	-	-	-	one-half pint.
Cream,	-	-	-	-	four tablespoons.

Mix and heat until it comes to boiling point in ten minutes.

RESULT :

Water,	Fat,	Milk Sugar,	Albuminoids,	Ash,
86.2	4.5	7.	2.	0.3

The average analysis of normal mothers' milk is :—Water 86.73 ; Fat, 4.13 ; Milk Sugar, 6.94 ; Albuminoids, 2 ; Ash, 0.2.

By this simple method, the caseine of cows' milk is brought to the soluble condition characteristic of the peptone-like albuminoids of mothers' milk, and the chemical composition of the milk modified to a very close approximation to average human milk in every detail.

Cows' milk, prepared with the Peptogenic Milk Powder, is just as digestible as mothers' milk ; it does not make the milk unnaturally easy of digestion.

This method is the best achievement of science as applied to infant feeding, and is just as simple and as easy for use as the most empirical so-called " infant food " of the shops.

Sample and Pamphlet upon request.

FAIRCHILD BROS. & FOSTER,
NEW YORK.