Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original 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.

L'Institut 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 covers / Couverture de couleur		Coloured pages / Pages de couleur
	Covers damaged / Couverture endommagée		Pages damaged / Pages endommagées
	Covers restored and/or laminated / Couverture restaurée et/ou pelliculée		Pages restored and/or laminated / Pages restaurées et/ou pelliculées
	Cover title missing / Le titre de couverture manque		Pages discoloured, stained or foxed/ Pages décolorées, tachetées ou piquées
	Coloured maps /		Pages detached / Pages détachées
	Cartes géographiques en couleur		Showthrough / Transparence
	Coloured ink (i.e. other than blue or black) / Encre de couleur (i.e. autre que bleue ou noire)		Quality of print varies / Qualité inégale de l'impression
	Coloured plates and/or illustrations / Planches et/ou illustrations en couleur Bound with other material /		Includes supplementary materials / Comprend du matériel supplémentaire
	Relié avec d'autres documents Only edition available / Seule édition disponible		Blank leaves added during restorations may appear within the text. Whenever possible, these have been omitted from scanning / II se peut que
	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.		certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été numérisées.
\checkmark	Additional comments / Continuous pag Commentaires supplémentaires:	ination.	

~~≈ THE ≈~~

Maritime Medical News

A MONTHLY JOURNAL OF

MEDICINE AND SURGERY.

Vol. XIV.

HALIFAX, NOVA SCOTIA, NOVEMBER, 1902.

No. 11.

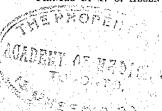
There is everything in Peptonised Milk

that is contained in raw milk, with the immense advantage gained for the sick, that the casein is physiologically altered into a soluble form—the milk cannot curdle, remains a real fluid after ingestion. Casein curd cohering in compact masses is by far the most refractory to digestion of any form of proteid. Many years of clinical experience have proven that nothing is lost (and surely much gained) by beginning with peptonised milk and avoiding the always possible and often realised complications and relapses due to the accumulation of indigestible food in the intestinal tract.

MILK IS PEPTONISED EASILY WITH FAIRCHILD'S PEPTON-ISING TUBES—COLD OR HOT PROCESS.

FAIRCHILD BROS. & FOSTER NEW YORK

PRINTED BY T. C. ALLEN & Co., 124 GRANVILLE STREET, HALIFAN, N. S.



SAVES TIME AND PATIENTS

The greatest auxiliary to any form of medication in anaemic and consumptive cases is live, healthy blood.

BOYINIE

is the arterial blood of the vigorous bul lock, antiseptically prepared by cold process, and sterilized. It makes new and enriched blood quicker and better than any other known agent. There is a prompt increase of red cells and haemoglobin in the blood, together with rapidly improving strength and functions, shortly after administration is begun. A postal will bring you our scientific treatise on topical and internal administration, and reports of hundreds of clinical cases.

THE BOVININE CO.,

75 West Houston St., New York.

LEEMING MILES & CO., MONTREAL. Sole Agents for the Dominion of Canada.

Listerine

ADERTA TELEFORMENTALISMENTALISMENTA NELECTRICADA MESALISMENTA ELECTRICADA CONTRA CONTRA CONTRA CONTRA CONTRA C

The standard antiseptic for both internal and external use.

NON-TOXIC, NON-IRRITANT, NON-ESCHAROTIC-ABSOLUTELY SAFE, AGREEABLE AND CONVENIENT.

LISTERINE is taken as the standard of antiseptic preparations: The imitators all say, "It is something like LISTERINE."

BECAUSE of its intrinsic antiseptic value and unvariable uniformity, LISTERINE may be relied upon to make and maintain surgically clean—aseptic—all living tissues.

IT IS AN EXCELLENT and very effective means of conveying to the innermost recesses and folds of the mucous membranes that mild and efficient mineral antiseptic, beracic cid, which it holds in perfect solution; and whilst there is no possibility of poisonous effect through the absorption of Listerier, its power to neutralize the product of putre faction (thus preventing septic absorption) has been most satisfactorily determined.

A special pamphlet on catarrhal disorders may be had upon application.

For diseases of the uric acid diathesis

LAMBERT'S LITHIATED HYDRNAGEA

A remedy of acknowledged value in the treatment of all diseases of the urinary system and of special utility in the train of evil effects arising from uric acid diathesis. A pamphlet of "Clippings" of editorials on this subject may be had by addressing:

LAMBERT PHARMACAL CO., SAINT LOUIS.

Be assured of genuiue Listerine by purchasing an original package.

Children respond so quickly to Scott's Emulsion, it seems peculiarly suited to their sensitive natures. It is wonderful how quickly a delicate child improves in every way on such treatment.

Samples free.

SCOTT & BOWNE, Chemists,
TORONTO, ONTARIO.

McGILL UNIVERSITY, Montreal.

FACULTY OF MEDICINE.

Seventy-first Session. 1902-1903.

OFFICERS AND MEMBERS OF THE FACULTY.

WILLIAM PETERSON, M. A., LL. D Principal, ALEX JOHNSON, M.A., L.L.D., Vice-Principal, T. G. RODDICK, M. D. LL. D., Dean.

J. G. ADAMI, M.A., M.D., Director of Musuem. F. G. FINLEY, M.D., Lond., Librarian.

EMERITUS PROFESSORS.

WILLIAM WRIGHT, M. D., L. R. C. S.

DUNCAN C. McCALLUM, M. D., M. R. O. S. E,

G. P. GIRD WOOD, M. D., M. R. C. S., Eng.

PROFESSORS.

Thos. G. Roddick, M. D., Professor of Surgery.

WILLIAM GARBNER, M. D., Professor of Gynæcology.

FRANCIS J. SHEPHERD, M. D., M. R. C. S., Eng., Professor

F. BULLER, M. D., M. R.C. S., Eng., Professor of Ophthamology and Otelogy.

James Stewart, M. D., Prof. of Medicine and Clinical Medicine.

GEORGE WILKINS, M. D., M. R. C. S., Professor of Medical Jurisprudence and Lecturer on Histology.

D. P. PENHALLOW, B. So., Professor of Botany.

WESLEY MILLS, M. A., M. D., L. R. C. P., Professor of Physiology.

JAS. C. CAMERON, M. D., M. R. C. P. I., Professor of Midwifery and Diseases of Infancy.

ALEXANDER D. BLACKADER, B. A., M. D., Professor of Pharmacology and Therapeutics

R. F. RUTTAN, B. A., M. D., Prof of Chemistry.

JAS. BELL, M. D., Prof. of Clinical Surgery.

J. G. ADAMI, M. A., M. D., Cantab, Prof. of Pathology,

F. G. FINLEY, M. D., London, McGill, Assistant Professor of Medicine, and Associate Professor of Clinical Medicine.

HENRY A. LAFLEUR, B. A., M. D., Assistant Professor of Medicine and Associate Professor of Clinical Medicine. GEORGE E. ARMSTRONG, M. D., Associate Prof. of Clinical Surgery,

H. S. BIRKETT, M. D., Prof. of Laryngology.

T. J. W. Burgess, M. D. Prof. of Mental Diseases.

WTATT JOHSTON, M. D., Professor of Hygiene

C. F. MARTIN, B. A., M. D., Assistant Professor of Clinical Medicine

LECTURERS.

W. S. Morrow, M. D., Lecturer in Physiology. John M. Elder, B. A., M. D., Lecturer in Surgery and Clinical Surgery.

J. J. GARDNER, M D., Lecturer in Ophthalmology.

J. A. SPRINGLE M. D., Lecturer in Applied Anatomy, F. A. L. Lockhart, M. B. (Edin) Lecturer in Gynaeology, A. E. Garrow, M. D., Lecturer in Surgery and Clinical

Surgery.

G. GORDON CAMPBELL, B. Sc., M. D., Lecturer in Clinical Medicine.

W. F. HAMILTON. M. D., Lecturer in Clinical Medicine.

J. G. McCarthy, M. D., Lecturer and Senior Demonstrator in Anatomy. D. J. EVANS, M. D., Lecturer in Obstetrics.
N. D. Gunn, M. D., Lecturer in Histology.
J. W. STIRLING, M. B., (Edin.), F. R. G. S., Lecturer in

Ophthalmology.

J. ALEX HUTCHINSON, M.D., Lecturer in Clinical Surgery. A. G. Nichols, M. A., M. D., Lecturer in Pathology. J. T. Halsey, M. D., (Columbia). Lecturer in Pharma-

cology.

W. W. CHIPMAN, B. A., M. D., F. R. C. S., (Edin.) Lecturer in Gynacology.

P. G. WOOLLEY, B. Sc., M. D., Fellow in Pathology.

G. A. Charlton, M. D., Fellow in Pathology.

W. M. FORD, B. A., M. D., Fellow of the Rockfeller Institute.

The Collegiate Course of the Faculty of Medicine of McGill University begins in 1902, on September 23rd, and will continue until the beginning of June, 1903.

The Faculty provides a Reading Room for Students in connection with the Medical Library which contains over 24,000 volumes, the largest Medical Library in connection with any University in America.

MATRICULATION.—The matriculation examinations for entrance to Arts and Medicine are held in June and September of each year.

The entrance examinations of the various Canadian Medical Boards are accepted.

THERE ARE IN ADDITION TO THE ABOVE THIRTY-ONE DEMONSTRATORS.

PEES .- The total fees including Laboratory fees and dissecting material, \$125 per session.

Courses .— The REGULAR COURSE for the Degree of M. D. C. M. is four sessions of about mine months each.

DOUBLE COURSES leading to the Degrees of B. A. or B. Sc., and M. D., of six years has been arranged.

ADVANCED COURSES are given to graduates and others desiring to pursue special or research work in the Laboratories of the University, and in the Clinical and Pathological Laboratories of the Royal Victoria and Montreal General Hospitals.

A POST-GRADUATE COURSE is given for Practitioners during May and June of each year. This course consists of daily lecturer and clinics as well as demonstrations in the recent advances in Medicine and Surgery, and laboratory courses in Clinical Bacteriology, Clinical Chemistry, Microscopy, etc.

DIPLOMAS OF PUBLIC HEALTH -A course open to graduates in Medicine and Public Health Officersfrom six to twelve months duration. The course is entirely practical, and includes in addition to Bacteriology and Sanitary Chemistry, a course on Practical Sanitation

DIPLOMAS OF LEGAL MEDICINE.-A Diploma, practical course in Medical Jurisprudence is also gives in the laboratories and by the Coroner's Physician in morgue and courts of law.

HOSPITALS.—The Royal Victoria, the Montreal General Hospital and the Montreal Maternity Hospital are atilized for purposes of Clinical instruction. The physicians and surgeons connected with these are the clinical professors of the University.

These two general hospitals have a capacity of 250 beds each and upwards of 30,000 patients received treatment is the outdoor department of the Montreal General Hospital alone, last year.

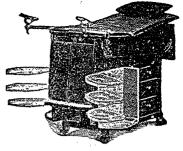
Fo information and the Annual Announcement, apply to

T. Q. RODDICK, M.D., L.L.D., DEAN.

McGill Medical Faculty

KEEP YOUR SEAT

open the cabinets, swing the trays around to side and proceed with the treatment. This is only one of the many advantages



THE ALLISON TABLE

possesses that cannot be found in any other. It also includes all the desirable features of other tables.

Catalogue "A" tells all about it and our fine line of cabinets.



W. D. ALLISON CO.,

133 E, SOUTH ST.,

INDIANAPOLIS.

FINE CHEMICALS.
CHEMICAL APPARATUS.

Physicians, Surgeons, Dentists. Hospital & College Supplies.

THE CHEMISTS & SURGEONS SUPPLY Co., LTD. 818 DORCHESTER STREET,

(Opposite Fraser Institute.)

MONTREAL.

CHAS. L. WALTERS, BA. Sc., (McGill)
MANAGING DIRECTOR.

TELEPHONE UP 945. (LONG DISTANCE).

Che Maritime Medical News.

is the Journal of the Medical Profession of the
.... Eastern Canadian Provinces,

SUBSCRIPTION IS ONLY \$1.00 PER ANNUM.

ADVERTISING RATES MAY BE HAD UPON APPLICATION



DR. JAMES Ross, - - 87 Hollis St., Halifax.

Wampole's Cresole.

A most
Efficient
Disinfectant &
Deodorizer.

ABSOLUTELY SAFE. NON-POISONOUS...

It will not stain nor affect the skin or any fabric, and in consequence can be handled and used with impunity.

CRESOLE will be found of especial value as a disinfectant where contagious diseases, such as Smallpox, Diphtheria, Measles, Etc., are prevailing. Its continued use serves as a protection against contracting contagious diseases.

DIRECTIONS REGARDING USE.

As a Disinfectant, where contagious diseases are prevailing, or as a preventative, closets, sinks, etc., should be thoroughly and frequently cleansed with a solution of four (4) tablespoonfuls of Cresole in one (1) gallon of water.

For Mosquito or other Insect Bites rub the Cresole undiluted well into the wound.

To Destroy Insects and all parasites, and to keep fleas, flies, etc., from animals, use a solution of one (1) part of Cresole in fifty (50) parts of water.

For Mange in dogs, sheep, etc., use a solution of one (1) part of Cresole in twenty (20) parts of water; a few applications will suffice.

As a Gargle in sore throat, colds, etc., use a solution of one half $(\frac{1}{2})$ teaspoonful of Cresole in one (1) quart of water.

To Stop Bleeding and to heal wounds, etc., use a solution of one (1) teaspoonful of Cresole in one (1) quart of water.

CRESOLE forms a most effective mouth wash, through its property of purifying the breath and preserving the teeth.

The mouth should be rinsed two (2) or three (3) times daily with a solution of five (5) or ten (10) drops of Cresole in a glass of water.

MADE BY

HENRY K. WAMPOLE & CO., MANUFACTURING CHEMISTS,

HALIFAX MEDICAL COLLEGE,

HALIFAX. NOVA SCOTIA. Thirty-Fourth Session, 1902-1903.

THE MEDICAL FACULTY.

ALEX. P. RWID, M. D., C. M.; L. R. C. S. Edin.; L. C. P. & S. Can Emeritus Professor of Medicine John F. Black, M. D., Coll. Phys. and Surg., N. Y.; Emeritus Professor of Surgery and Clinical Surgery H. McD. Henry Justice Supreme Court; Emeritus Professor of Medical Jurisprudence. Grorge L. Sinclair, M. D., Coll. Phys. and Surg., N. Y.; M. D., Univ. Hal.; Emeritus Professor of Medicine

DONALD A. CAMPBELL, M. D., C. M.; Dal.; Professor of Medicine and Clinical Medicine
A. W. H. Lindsay, M. D., C. M.; Dal.; M. B., C. M., Edin.; Professor of Anatomy
F. W. Goodwin, M. D., C. M., Hal. Med. Col.; L. R. C. P.; Lond.; M. R. C. S., Eng.; Professor of Pharmacology and Therapeutics.
M. A. Curry, M. D., Univ. N. Y.; L. M., Dub.; Professor of Obstetrics and Gynæcology and of Clinical

Medicine

Medicine
Murdooff Chisholm, M. D., C. M. McGill; L. R. C. P., Lond.; Professor of Surgery and of Clinical Surgery
Norman F. Cunningham, M. D., Bell. Hosp., Med. Cel.; Professor of Medicine
G. Carleton Jones, M. D., C. M., Vind.; M. R., C. S., Eng.; Prof. of Diseases of Children.
Louis M. Silver, M. B., C. M., Edin.; Professor of Physiology and of Clinical Medicine
Join Strwart, M. B., C. M., Edin.; Professor of Surgery
C. Dickir Murrat, M. B., C. M., Edin.; Professor of Ginical Medicine
Gwo. M. Campbella, M. D., C. M., Bell. Hosp. Med. Coll.; Professor of Histology and Pathology.
F. U. Anderson, L. R. C. S., and L. R. C. P., Ed.; M. R. C. S., Eng.; Adjunct Professor of Anatomy
W. H. Hattig, M. D., C. M., MoGill.; Professor of Medicine
N. E. McKay, M. D., C. M. Hal. Med. Col.; M. B., Hal.; M. R. C. S., Eng.; Professor of Surgery, Clinica
Surgery and Orderative Surgery

Surgery and Operative Surgery, Chines
Surgery and Operative Surgery, Chines
Montagur A. B. Smith. M. D., Univ. N. Y., M. D., C. M., Vind.; Professor of Applied Therapeutics, Class
Instructor in Practical Medicine

Instructor in Practical Medicine
Andrew Halliday, M. B.; C. M., Glas.,; D. P. H. Associate Professor of Pathology and Bacteriol gy.
C. E. Puttner, P. M., Hal. Med. Coll.; Lecturer on Practical Materia Medica.
Thos. W. Walsh, M. D., Bell. Hosp. Med. Coll.; Adjunct Professor of Obstetrics,
A. I. Madre, M. D., C. M., Class Instructor in Practical Surgery
H. S. Jacques, M. D., Univ. N. Y., Lecturer on Medical Jurisprudence and Hygiens
E. A. Kirkpatrick, M. D., C. M., McGill. Lecturer on Ophthalmology, Otology, Etc
E. H. Lowrison, M. D., Lecturer on Ophthalmology, Otology, Etc
H. D. Walver, M. D., C. M., Trin, Med. Coll., Demonstrator of Histology
John McKinnon, Ll. B.; Legal Lecturer on Medical Jurisprudence
E. V. Hogan M. D., C., M., McGill; L. R. C. P. & M. R. C. S. (Eng.) Demonstrator of Anatomy
J. A. McKenzie, M. D., C. P. S. Bostoh; Demonstrator of Anatomy

EXTRA MURAL LECTURERS.

E, MACKAY, PH. D., etc., Professor of Chemistry and Botany at Dalhousie College

, Lecturer on Botany at Dalhousie College
ANDREW HALLIDAT, M. B. C. M., Lecturer on Zoology at Dalhousie College.
JAMES ROSS. M. D., C. M., McGill, Lecturer on Skin and Genito-Urinary Diseases
S. M. Dixon, M. A.; Prof. of Physics at Dalhousie College

The Thirty-Fourth Session will open on Tuesday, September 2nd, 1902, and continue for the eight

months following. The College building is admirably suited for the purpose of medical teaching, and is in close proximity the Victoria General Hospital, the City Alms House and Dalhousie College.

The recent enlargement and improvements at the Victoria General Hospital, have increased the clinical facilities, which are now unsurpassed, every student has ample opportunities for practical work.

The course has been carefully graded, so that the student's time is not wasted. The following will be the curriculum for M. D., C. M. degrees:

1st Year.—Inorganic Chemistry, Anatomy, Practical Anatomy, Biology, Histology, Medical Physics (Pass in Inorganic Chemistry, Biology, Histology and Junior Anatomy.)

2ND YRAR.—Organic Chemistry, Anatomy, Practical Anatomy, Materia Medica, Physiology, Embryology, Pathological Histology, Practical Chemistry, Dispensary, Practical Materia Medica (Pass Primary M. D., C. M. examination).

3RD YEAR.—Surgery, Medicine, Obstetrics, Medical Jurisprudence, Clinical Surgery, Clinical Medicine, Pathology, Bacteriology, Hospital, Practical Obstetries, Therapeutics.
(Pass in Medical Jurisprudence, Pathology, Therapetics.)

47E Year.—Surgery, Medicine, Gynæcology and Diseases of Children, Ophthalmology, Clinical Medicine, Clinical Surgery, Practical Obstetrics, Hospital, Vaccination, Applied Agnatomy.

(Pass Final M. D., C. M. Exam.)

Fees may now be paid as follows;

One payment of \$300 00 Two of 155 00 Three of 110 00

Instead of by class fees. Students may, however, still pay by class fees For further information and annual announcement, apply to-

> L. M. SILVER, M. B. REGISTRAR HALIFAX MEDICAL COLLEGE. 63 HOLLIS ST., HALIFAX.



Reichert's
Microscopes, Etc

SURGICAL INSTRUMENTS

One of the most complete stocks in the Dominion of up-to-date instruments manufactured mainly in England.

Quality is of first importance.

Prices as low as consistent with good work-manship.

Get our quotations.

Bacteriological Apparatus, Micro. Stains, Sterilizers, Batteries, and all Surgeon's Requisites,

PATERSON & FOSTER,

21 PHILLIPS SQUARE.

MONTREAL,

A Step

in advance of all others.

À

R Emril. Ol. Morrh. et Hypophos. c Guaiacol, (Parks)

MANUFACTURED

RV

HATTIE & MYLIUS,

HALIFAX, N. S. Price 50c. of all druggists.

Park's Perfect Emulsion Cod Liver

With the Hypophosphites of Lime and Soda with::



S The Successful Introduction

of a really meritorious remedy is immediately followed by the unwarranted and most damaging dissatisfaction of Imitations and Substitutions, which flood the market almost beyond the physician's comprehension, it therefore behooves us to kindly and partic larly request not only the specification (Gude), but the prescribing of ORIGINAL BOTTLES by every physician who desires to employ in his treatment

Pepto-Mangan ("Gude")

which is the original and only true organic preparation of iron and manganese, and the source and foundation of all the exceptional and positive therapeutic merit experienced in this product.

Imitations with similar sounding names, but dissimilar in every other respect, are mischievous enough, but in nefariousness are yet unequal to substitution and the substitutor, against whom the physician's only assurance is an original bottle.

GUDE'S PEPTO-MANGAN has, since its introduction to the Medical Profession of the World, always proved its superiority over other blood-making compounds, and furthermore will always substantiate all the statements so highly commending its value.

As this certainty in efficacy has won for this preparation the confidence and reliance of the physician, we, to protect you, your patients and ourselves against such conscienceless methods, earnestly ask the prescribing of original bottles only. This request, though seemingly of little importance, will be significant in view of the astounding knowledge that 75% of the manufacturers are not only offering but selling gallons and kegs of so called "Just as Good" iron mixtures, which have not undergone and dare not undergo either the scrutiny of the physician or examination by the chemist.

While there is only one Pepto-Mangan

which is never supplied in any form of package other than our . . . regular eleven-ounce hexagonal bottle, . . .

you will readily surmise the intent of these imitation preparations which are wholly unknown to the Medical Profession, and agree with us in the importance of the above request.

Any one offering Pepto-Mangan in bulk form, either intentionally or unintentionally practises substitution; hence our solicitation for your co-operation against this harmful, unjustifiable, and inexcusable fraud.





M. J. BREITENBACH COMPANY,
53 WARREN STREET NEW YORK.

MARITIME MEDICAL NEWS.

A MONTHLY JOURNAL OF MEDICINE AND SURGERY.

EDITORS.

D. A. CAMPRELL, M.D	JOHN STEWART, M. B Halilar, N.S. W. H. HATTIE, M. D Halifar, N.S. R. Macnelle, M. D Charlottetown, P. E. I.				
James Ross, M. D. Helifax, N. S.					

Communications on masters of general and local professional interest will be gladly received from our friends everywhere.

Manuscript for publication should be legibly written in ink on one side only on white paper.

All manuscript and business correspondence to be addressed to

DR. JAMES ROSS,

S7 Hollis Street, Halifax.

CONTENTS FOR NOVEMBER, 1902.

ORIGINAL COMMUNICATIONS:	EDITORIAL. Our Relation to Insurance Companies 4:		
At Plan for the Supplicat Areatment of Apparent of App	SOCIETY MEETINGS. Nova Sectia Branch British Medical Association		
Sanila Parisonadi Tuberculosis — Archur 409			
Atlancati Neurolgia of Brachiel Plexus sa: First-Becondary Symptom of Symbols I. J. Doyle	Personals. 424 Notes 424		
Porrespondence 418	Notes		

Pinocodeine

(FROSST)

FORMULA:—Codeine Phosphate, 1 gr.
Prunus Virginiana, 4 grs.
Pinus Strobus, 4 grs.
Sanguinaria Canadensis, 1 gr.
Populus Balsamifera, 1 gr.
Chloroform, 1 gr.
To each fluid drachm.

USES—Recent and Chronic Coughs, Acute and Chronic Bronchitis and allied affections of the respiratory tract.

DOSE-One to two teaspoonfuls, as necessary, three or four times a day. Children according to age.

An admirable preparation that stops coughing allays irritation and assists expectoration. It does not nauseate or constipate, and can be given with perfect safety to α patient of any age.

It is not put up in small packages for retailing, but dispensed from bulk on physician's prescriptions only.

In prescribing please specify "Pinocodeine (Frosst)."

CHARLES E, FROSST & CO. MANUFACTURING CHEMISTS, MONTRE

A Perfect and Uniform Combination

Antikamnia & Aeroin

A lanets



5 GR: ANTIKAMNIA, 1/12 GR. HEROIN HYDROCHLOR,

This tablet stimulates impaired respiration, relaxes cough, promotes expectoration, allays pain, and while acting as a mild and efficient sedative and analgesic, does not derange the stomach nor disturb digestion

-NEITHER DOES IT ESTABLISH A HABIT

THE ANTIKAMNIA CHEMICAL COMPANY-ST.LOUIS U.S.A

THE

MARITIME MEDICAL NEWS.

A MONTHLY JOURNAL OF MEDICINE AND SURGERY.

Vol. XIV. HALIFAX, N. S., NOVEMBER, 1902.

No. 11.

Original Communications.

ADDRESS IN SURGERY.*

THE CONTRIBUTION OF PATHOLOGY TO SURGERY.

By John Stewart, M. B., C. M., Edin., Halifax, N. S.

There is no finer chapter in the history of our race than that which deals with the exploits of the early navigators of the fifteenth and sixteenth centuries. The sea was not then what it is now, mapped and measured, and marked by innumerable highways of travel. It was a dim mysterious realm, with unknown bounds, little more was known of its nature than when Homer sang, with a grand vagueness, of the Streams of Ocean.

And yet, from Palos or from Bristol men set forth urged by the deathless yearning of the human heart to know and to do, with no guide but the scanty scraps of experience, and their own hardy resolution, without sextant, without chronometer, without log-book, without chart, they sailed out into the vast unknown, unmeasured, unsounded sea, fearing but daring mystery, and hoping for the Hesperides.

The seamanship of those heroes was perfect, their navigation, their knowledge of the principles which lay at the foundation of their art, their equipment in all that is now deemed essential, was crude and rudimentary. How could it be otherwise when Newton was yet unborn, when the old Ptolemaic theory of the universe still held sway and at a time when success and failure were attributed to the benign

^{*} Delivered before Canadian Medical Association, Montreal, Sept. 16th, 1902.

F.7.

or baleful influence of the stars by which they sought to guide their course?

Long and slow was the process of their science, centuries were to pass before their dreams came true, many and various were the sources from which help came, and even to-day there are problems unsolved, and a still elusive goal.

Nothing is more striking in the evolution of nautical science than the marvellous development of the last century, due chiefly to the introduction of steam as a motive power. It has created a new epoch.

I knew an old sea-captain who told me that when he was an apprentice he sailed one winter morning in a brig called the "Westmoreland" from Belfast, bound out to St. John, N. B., "And," said the old man, "after boxing about the Western Ocean for one hundred and forty days we brought up in Cork Harbour." Compare such a contingency with a voyage in such a ship as the "Oceanic," which leaves her dock with the punctuality of clockwork, a scarcely greater punctuality than that with which she arrives in dock on the other side of the Atlantic.

The contributors to this wonderful advance may be divided into two classes. There was the practical sailor, quick to observe, ready to act, full of resource, with all

"The virtues which his perilous life"
Extracts from Nature's elemental strife."

And there was the philosopher, the man of reflection, who pondered the reports of these adventurers in strange seas and under new skies, and sought for explanations of mystery, who followed Learning for her own dear sake, and counted himself happy if only he might know the causes of phenomena and evolve a Cosmos from seeming chaos.

A parallel, not altogether fanciful, may be drawn between those pioneers of ocean travel and the early masters of our craft. Those made their way through the uncertain world of waters, very synonym of change and unrest, guided on the one hand by their own hard-won experience and the traditions of their fathers, and on the other by the application of principles laid down by men who made a philosophic study of Nature, who searched into the secret of the sea, who built up the Sciences of Astronomy, Geography and Hydrography.

And these worked in the sphere of the human organism, mysterious, intricate, inexplicable, and they too worked on two lines, the long and

weary and often fallacious track of Empiricism, and the ampler but often disconnected road constructed by those whose chief aim was, in the words of him who led the vanguard, "to study and search out the secrets of Nature."

There was a Cosmography—of a kind—and methods of measuring space and time before Copernicus and Tycho Brahe, and there must have been some sort of a pathology, some notion of the nature of the morbid processes in the mind of the first prehistoric surgeon who plugged a wound or opened an abscess. The troglodyte surgeon must have had some notion why he chipped holes in his patient's skull.

But was the lore of the medieval mariner, regarding the earth as a fixed expanse around which the heavenly bodies wheeled, casting a horoscope to secure a favorable voyage, sailing a wonder-sea of mystery and portent, anchoring to the Kraken's rugged side and being well acquainted with the Mermaid, more unscientific than that of his brother the surgeon? What a limbo of fantastic and irrational notions filled the minds of our colleagues of the Middle Ages! Yes, even of men who lived a century ago and whose voices still have power.

It is difficult for us to realize the strange notions of a time when the ancient humoral pathology in a very solidist manner, still projected itself into the vortex of the Renaissance, when honoralist and solidist rose, struggled and sank, to reappear in new disguises as they do to this day, when the vitalist imagined his "Archaeus," when skilled clinicians considered scabies a typical dyscrasia, and when a keen and cultured mind could believe in the "pulvis sympatheticus," and when the grotesque philosophy of Paracelsus with its strange fore-gleams of latter day truth, held sway. Medieval pathology is like a dark and troubled sea where gleams of truth shine pale through wildering mists and where conflicting currents seethe and boil—"dark fluxion—all unfixable by thought."

And what Navigation was to Seamanship, Pathology is to Surgery. Advance in nautical science was conditioned by the advance in the study of natural phenomena, by invention of instruments of precision, and the application of these to the purposes of the mariner. From China came the mariner's compass; from Nuremburg came the watch, precursor of the chronometer; from Flanders came Mercator with his charts; Scotland sent Napier with his logarithms; England supplied Hadley and the sextant; and the fore-runner of the Nautical

Almanac—the mariner's vade mecum—in the shape of the first Almanac, came from Poland.

And nothing is clearer than that progress of surgery depended on the study of vital phenomena and the application of the results of these studies and of new methods to the problems of disease and injury.

The pyrotechnics of Paracelsian dreamery were still blazing on the dim coasts of the old-world pathology when the morning star of the new era appeared in the person of the first real anatomist Versa ius, and day dawned with William Harvey, the Columbus of modern medicine. Harvey led the way in the application of experimental methods to biological questions. The result of his great discovery was a complete change in pathological ideas, and a new school of pathology soon arose under the guidance of the famous Boerhaave at Leyden. He, impressed by the study of the physics of the circulation, and aided by the discovery of the capillary system by Malpighi, and of the red corpuscles of the blood by Swammerdam and Lewenhoek, initiated the study of the local changes in diseased parts, and soon the first text-book of general pathology was brought out by Gaubius, distinctly biological in its view, and having for its text the maxim of Boerhaave "Morbus est vita praeter naturam."

It was under the influence of these views and the new methods of study that Morgagni produced his epoch-making book, "De Sedibus et Causis morborum," of which Virchow says, "it was the first time that the sum total of actual knowledge of the material alterations which disease occasions in the body, was brought before the world."

With this, pathological anatomy began and the way was prepared for John Hunter. He it was who introduced the experimental method into the study of disease; and, by virtue of his intuitive genius, his amazing capacity for work, and his practical applications of the results of his researches, has well earned the title Father of Scientific Surgery. "From the time of Hunter to the present time" says Billroth, "English Surgery has had something of grandeur and style about it."

In the vast field of subjects which Hunter explored it is difficult to single out any one for pre-eminence. But it is undoubtedly on the score of his celebrated operation for popliteal aneurysm that he is generally known as a practical surgeon. Mr. Butlin, in his interesting Cavendish Lecture, tells us, not without a stroke of humour, of the great expectations he had formed of interesting instances of the direct influences

of pathological study on practical surgery, and how he found absolutely nothing of the sort in the history of medicine until he came to Hunter's operation, which he calls "the one example, the only example, up to that time, of deliberate surgical invention founded on the study of pathology by the man who made the invention."

But it is not in particular instances only, in improved methods of diagnosis, in aids to operative surgery, that the contribution of pathology is found. It is rather in the new principles gained, and in the new attitude towards nature and phenomena, that pathology has ennobled surgery.

Hunter helped us to understand our power of interrogating nature, of interpretating her answer, and our power of applying the knowledge so gained to the practicable problems of our art. This was the beginning of Scientific Surgery, but much remained to be done, and it is noteworthy that the chief actors in the movement now were among the surgeons. Who can estimate the value of the impetus given to pathology by Xavier Bichat in his studies of the tissues, or of Andral in his hæmato-pathology? After Bichat came Dupuytren, the practical surgeon, and in England Charles Bell revolutionised our theories of the nervous system.

The next great advance was to arise from a study of plant life, and the researches of Schwann and Schleiden paved the way for the Cellular Pathology of Virchow—the basis of our present system of pathology.

And a shadow falls upon us gathered here as we realize that the Veteran Master, the undisputed leader of pathological thought and progress for over fifty years, has fallen, and we unite in the desire to lay our spray of cypress on the tomb of him whom we all considered the greatest German of our time.

But with all these new acquisitions, the exact anatomical knowledge, the clearer views of morbid action, there was still for the surgeon an unexplored sea of mystery. The pathologist went on his way rejoicing in his rapidly increasing store of knowledge, the surgeon still lingered, with anxious mind and heavy heart, for the question of questions to him was still unanswered.

The healing of wounds was the Enigma of Surgery, and the characteristic difficulty was the uncertainty attaching to the healing process. Here a wound healed quietly and soundly, without pain and without causing constitutional disturbance, and there it became

inflamed, suppurated for weeks, causing intolerable anguish and exhausting the patient. Why the difference? Why so much danger from the thrust of a pike than the stroke of a sabre? Why should a fracture of the leg, in which a splinter of bone had cut through the skin, be so much dreaded, while multiple simple fractures were seldom dangerous to life? Why was the peritoneum virtually a closed door to the surgeon's desires? Why did the implication of a joint add so terribly to the danger of a penetrating wound? Who can estimate the amount of anxious thought that has been given to this subject, who can guage the disappointment that resulted from the application of so many theories? Empiricism was at its wits' end. Cold lotions and warm poultices, stimulating liniments and soothing ointments, wet dressings and dry, no dressings at all-all had their advocates, their occasional successes and their inevitable failures. The only certainty in the whole sad field was the certainty of failure, the certainty that however brilliant a series of cases a surgeon might have, it was sure to be broken some day, for some inexplicable reason. We can only wonder at the marvellous correctness of some of the guesses at truth that were made, and admire the results which were sometimes attained by men who would almost appear to have had an intuitive, if unconscious, knowledge of the truth. Witness, for instance, the extraordinary results of Alanson at the Royal Infirmary of Liverpool in the beginning of last century. And mark that Alanson was a pupil of John Hunter.

The idea of *Materies Morbi* is a very old one, and doubtless the idea that this might be a species of living matter is also old. The notion of the parasitism of disease crops up repeatedly in the history of pathology. Monti, in his "fundamental data of modern pathology" claims for his fellow countryman Agostino Bassi, the distinction of being the founder of the doctrine of pathogenic microbes.

However this may be, it is certain that by the close of the eighteenth century this conception was present in the minds of many scientific workers.

It was reserved for Schönlein to prove in 1839 that the disease known as tinea, and considered as a typical "humoral" disease and not only so but hereditary, was really due to the growth of a fungus.

About fifty years ago Davaine and Chauveau proved that the disease known as anthrax was caused by the presence of an organism discovered in the blood of affected animals by Pollender in 1849.

The mists of conjecture were condensing and trickling into clear tiny rivulets, and soon these were collected by the genius of Pasteur into the grand fountain-head of the mighty stream of bacteriology. But the practical surgeon had gained nothing towards the elucidation of his enigma. Perhaps at no time was their greater helplessness in the treatment of wounds. The advance in methods of diagnosis and improved methods of operating, introduced by such men as Syme and Nelaton, and other brilliant surgeons of the period, and the great discovery of anæsthesia, had stimulated operators to increased activity. But the surgeon and his patient seemed the sport of a capricious fate. Epidemics of septic fever, pyæmia, hospital gangrene and crysipelas decimated hospital wards and often attacked tifty per cent of all operation cases, and hospitals were being closed. Surely surgery was suffering eclipse.

Then came Lister, and the dark hemisphere rolled in one grand movement from its age-long penumbra into noonday. Surgery—modern surgery—was born. In the chronology of our craft time is divided into before and after Lister. The shadows of fear, anxiety and uncertainty left the surgeon's face, for now that

"Wise, rare smile was sweet with certainties."

It is a fascinating thing to trace the history of a great discovery, and when the time comes to write the history of the Listerian Renaissance, it will be found the romance of surgery.

"The great artist," says Amiel, "is a simplifier." "Art is simply the bringing into relief of the obscure thoughts of nature; a simplification of the lines, a falling into place of groups otherwise invisible. The fire of inspiration brings out, as it were, designs traced before hand in sympathetic ink. The mysterious grows clear, the confused plain; what is complicated becomes simple, what is accidental, necessary. Every ideal is the key of a long enigma." Lister's ideal fitted the key to the enigma of surgery.

I do not know that we are yet in a position to understand the profound change which this ideal brought into pathology. We cannot yet find a proper perspective to view the work of him who is in surgery what Newton was in physics, "that master mind of which," as Pearce Gould says, "we owe the greatest impetus that surgery has ever felt."

As the new system was developed step by step with irresistible logic

an exact experiment, what illimitable vistas opened up before the surgeon, what realms undreamed of before.

Then felt I like some watcher of the skies
When a new planet swims into his ken;
Or like stout Cortes when with eagle eyes
He stared at the Pacific—and all his men
Look'd at each other with a wild surmise—
Silent, upon a peak in Darien."

Lister, like Hunter, united in himself the pathologist and the surgeon, and like him he worked on the lines of Harvey and "searched out the secrets of nature by way of experiment." The greatest contribution of pathology to surgery is through experimental surgery.

I have already had the honor of bringing before this Association some of the grounds on which we claim Lister as a great pathologist. His work on Inflammation, on the Coagulation of the Blood, and on the action of the Nervous System, as a powerful factor in pathological processes, has been of direct and inestimable value to surgery, apart from his Magnum Opus. I will now indicate some of the ways in which the pathological researches of others have directly influenced surgery. I shall choose three great departments of operative surgery.

The old operation for popliteal aneurysm was to tie the vessel on either side of the tumor, cut it open, turn out the clot and allow the wound to heal by supportation. The mortality was very high, the usual cause of death being secondary hæmorrhage from the proximal ligature cutting its way through the array. The current pathology of aneurysm, founded mainly on some observations of Haller, ascribed aneurysm to a weakening of the vessel wall. Hunter came to the conclusion, from clinical and post mort m study that aneurysm was due to disease of the arterial coats. But he was not content to think so. He experimented on the dog and found that mere weakening of the vessel by removal of portions of its outer walls did not lead to aneurysm. proposed to tie the artery high up where it was healthy, arguing that the current in the artery being thus shut off, pressure in the aneurysm would cease, and coagulation would take place; also that the collateral circulation would be sufficient to keep up the vitality of the limb without causing appreciable reflux into the sac. And what of the tumor itself? Instances had been recorded by Valsalva and others of the disappearance of aneurysmal tumors which had undergone spontaneous cure, and whether Hunter was aware of this or not he seems

to have trusted to absorption for the removal of the solidified contents of the sac, and we all know the brilliant success that proved his reasoning true.

A more modern instance of an operation conceived in the same spirit is afforded in the first nephrectomy by Gustav Simon of Heidelberg. A patient came under his care suffering from a ureteral fistula. In the sixties probably no surgeon had yet dreamed of ureteral anastomosis and removal of the kidney seemed to offer the only chance of cure. But was the operation feasible?

It must have been long known, thanks to morbid anatomy, that one kidney might be destroyed by disease and the patient yet remain healthy. It was a quite different matter to remove a kidney by operation without any opportunity for compensatory changes to take place. But experimental pathology had furnished proof in the hands of Zambeccarius that, in the dog, one kidney might be removed, without appreciable injury to health. Simon repeated these experiments. He learned that the chief danger was from peritonitis, that there was not much fear of hæmorrhage, that uræmia was not to be dreaded, that neither albuminuria nor cardiac hypertrophy followed, and that compensatory hypertrophy occurred in the remaining kidney. And so in 1869 he removed the kidney and succeeded in curing his patient of her distressing malady.

Few things would have amazed and delighted John Hunter more than the recent devlopements in Brain Surgery, and especially the steps by which the perilous ascent was gained. Diseased brains have been examined since the time of Morgagni, but it was the genius of Broca which first pointed to a sedes morbi for aphasia. The same fortunate blending of clinical acumen with exact morbid anatomy enabled Hughlings Jackson to extend our knowledge of the dependence of intercranial diseases on local alteration of structure. But it was necessary to have the irrefutable proofs afforded by the experiments of Fritsch and Hitzig and of Ferrier, before the surgeon could project his chart of cerebral surgery, and sail for the island of Reil.

Now it is evident that I need not weary you by going into further details to show how pathology in its various departments of morbid anatomy, etiology, chemical, microscopic and experimental pathology has contributed to the advance of surgery. Every day brings new evidence.

Our understanding of morbid processes has been and is still being enlightened, our power of diagnosis is increased, and our ability to cope with disease and injury is extended.

It is often said that the foundation of surgery is anatomy and this is true in a sense, for anatomy is the first step in pathology. A knowledge of anatomy is absolutely essential to the study of the human body. But anatomy deals with dead matter, pathology with living, if morbid, activities. Anatomy is finite, but pathology, as the permutations which may occur in anatomical elements, is infinite, and it is the realm which the surgeon must explore who wishes to have a firm grasp of the principles of his art. Much has been learned but more lies waiting discovery. There is always another "peak in Darien" and many surmises to make sure.

"O mare o littus verum secretumque museum quam multa invenitis quam multa dictatis."

Navigation owes much to the various institutes founded to further its study. Who can tell the value of the early naval schools in Spain, or of the Greenwich Observatory? And so if pathology is to flourish provision must be made for its study. Every hospital should have its Pathological Institute.

And here we know we shall find ourselves in collision with that section of the public to whom science is uncongenial and medical science an abomination. Pathological study may not always seem interesting or profitable. The ancient mariners would have smiled to think the Tuscan artist with his optic glass could be of any benefit to him, and perhaps Galileo was thinking more of descrying new lands rivers and mountains in the moon than of assisting the sailor, nevertheless he was helping to lay the foundation of the Science which was to make the modern sailor's work possible.

And when the father of our own illustrious Lister, applying his knowledge to the physical and chemical characters of glass, perfected our achromatic microscope, there were practical surgeons who would certainly have failed to see any bearing which his work had on theirs.

When watches were first made in Nuremburg, the only thought in the maker's mind, probably, was the accurate registration of the passing of time. But Gemma, the Italian, intent on perfecting methods of navigation, seized the idea of the watch at once as a means of computing longitude and led the way to the use of the chronometer. And the gain is not necessarily all one way, for the practical surgeon, making careful clinical records, may furnish the pathologist with new ideas, and if one may wrest the words from their original meaning he,

"Doomed to go in company with Pain, And Fear and Bloodshed, miserable train, Turns his necessity to glorious gain,"

and may help to introduce new forces into the healing art.

Here in Canada, while we have had ample experience of the anti-vaccinationist, we have scarcely made the acquaintance of his coheague the anti-vivisectionist. But the signs of the times indicate that full scope will soon be given to his vituperative faculty, for in the Universities of McGill and Toronto pathological research has fairly started on its way.

If we cannot however "mollify the spirit of captious contradictors," we may perhaps deprive them of an audience by teaching the public that those who devote their time to the investigation of disease and who may sometimes find it necessary for the elucidation of the problems submitted to them, to inflict pain on animals, may be lightening the burden of humanity as well as he who directly mitigates its pains, and that their work may be regarded like that of every conscientious surgeon, as a sacred duty, a responsible task, carried out "As ever in the great Task-Master's eye."



A PLEA FOR THE SURGICAL TREATMENT OF APPENDICITIES*

By G. CLOWES VANWART, M. D., Fredericton, N. B.

Much has been written and said on the subject of appendicitis. I shall make no attempt to treat the subject in extenso, but rather base my remarks on personal experience, with no references to text-books, etc.

We may classify diseases of the vermiform appendix in point of time, as primary and recurrent. Clear cut symptoms are not present in every case,—this being particularly true in the first twenty-four hours of the disease. The tripod of symptoms which prevent an error in diagnosis are:—

- 1. Pain: at first, sudden and acute, referred to the epigastric or umbilical regions; later becomes localized over the site of the appendix.
- 2. Rigidity: this follows the localization of pain and is most marked in the right lower quadrant of the abdomen.
- 3. Tenderness in the right lower quadrant of the abdomen: this being a constant symptom from the beginning of the attack.

Pain at first colicky is most marked in acute cases and may last only a few hours: as in those cases where pus forms rapidly. Tenderness is the most constant of these symptoms as would be expected from the fact that inflammation is present. The point of maximum tenderness is always between the attachment of the appendix to the cæcum and its apex. In recurrent attacks the only positive symptom is tenderness; and when these attacks are mild, diagnosis is often difficult, particularly so in the female sex. In cases that are seen early the position of the appendix can be determined, but if the organ contains pus and the sac has ruptured, its location becomes a more difficult matter.

It is not my intention to enter into the minutiæ of differential diagnosis. Obscure cases of enteric fever may sometimes be confounded with an attack of appendicitis, since pain in the ileo-cæcal region is present in the early stages of both diseases: but the pain is

^{*}Read before meeting of Maritime Medical Association, Charlottetown, July, 1902.

less acute in the former and there is not the mu-cular rigidity. Influenza of the digestive type is often at first confounded with a mild attack of appendicitis. Many cases of indigestion are the reflex symptoms of an inflamed appendix.

To illustrate: H. G. L., male, aged 24, consulted me in April 1901 for indigestion. I learned from him that "just two years before he had suffered from a severe attack of cramps which left him sore." He had been taking remedies with more or less regularity up to the time of consulting me. During an acute exacerbation he would have nausea, vomiting and abdominal pain, and was improving from such an attack when I first saw him. On examination I found marked tenderness about the so called "McBurney's point", with temperature and pulse normal. The patient consented to an operation and was at once removed to the Victoria Public Hospital. The appendix was found post-cæcal, pointing toward the liver and adhering to the cæcum. Two fæcal concretions were present, walled off at the distal end of the appendix, the latter showing marked chronic inflammation. An uninterrupted recovery followed the removal of the appendix and there has been no recurrence of his former trouble.

The thermometer should not be relied upon for much assistance in diagnosis, since in the presence of pus there may be little or no rise of temperature. To illustrate: R. B., male aged 12, after considerable physical exertion suddenly developed intense pain in the abdomen. He had tenderness at first about the umbilicus. At the beginning of the third day the maximum point of tenderness was two inches below the edge of the liver in the right hypochondriac region. Third day, temperature normal, pulse 90. I advised immediate operation, and found the appendix posterior and to the inner side of the ascending colon, with a length of four and a half inches. The distal end contained a sac of pus and was on the verge of breaking; but no adhesions were found. The appendix was removed and the patient made a rapid recovery. To further illustrate: Mrs. F. C. H., aged 26. In this case the temperature never rose above 100° Fah., and the pulse was never below 110. The patient was operated on at the beginning of the third day, the appendix being found ruptured and gangrenous with deposits of septic lymph on the neighbouring parts. Prompt operation, removal of the appendix, and thorough irrigation of the infected area saved this patient's life.

As a cause: I have noticed that attacks have followed undue

physical exertion as illustrated in case number 2 of this paper. The anatomical position of the vermiform appendix on the psoas muscle and the execum filled with faces is to my mind a sufficient cause to produce an irritated condition of this organ. Constipation was present in a majority of cases. In none of my cases have I found sufficient evidence to warrant the conclusion that an attack may be precipitated by over-eating. There is in my opinion a close relationship between appendicitis and tuberculosis: fully twenty-five per cent of my cases occurring in families of tubercular tendencies.

After opening the abdominal cavity I have always been able to find the appendix except in those cases where it has sloughed off. Behind and to the inner side of the execum is the most common position. In but one case have I found it to the outer side of the execum. I have never found the appendix pointing toward the pelvic cavity except in the female sex.

Three cases that had been allowed to go on to pus formation and the abscess cavities drained but the appendices not removed, subsequently came under my care for operation. In two of these cases the appendices were found small, contracted and curled on themselves and adhering posteriorly to the cocum. In the third case the appendix was large, inflamed and contained pus, being bound down by adhesions to the outer side of the cocum. A rapid recovery followed the removal of the appendix in each case.

Should the appendix be removed in every case when the abscess is drained? It is not always possible to do so and even when possible is not always safe. In cases where the cavity is imperfectly walled off I would hesitate to disturb the parts; but should temporarily treat the abscess by irrigation and drainage. On the other hand where the cavity is well walled off, my treatment is to remove the appendix. Cases that are seen early and under constant observation and allowed to go on to pus formation with rupture are, in my opinion, improperly treated. It is needless to say that it is no uncommon thing to find an abscess at the first examination. I have seen cases in consultation where the attending physician, knowing that an abscess was present. hesitated about operating but preferred to wait hoping that the patient would improve under rest and medical treatment, thus totally ignoring the surgical principle that pus must have vent. An abscess should be suspected when tenderness and pain continues, vomiting persists or distinct tumor felt. A rapid pulse is a reliable sign of suppuration.

I have never seen a chill to denote that pus was forming. The case in which the symptoms do not subside in thirty-six hours from onset of the disease is an operative one.

The idea of this paper is to suggest early operation in inflammation of the vermiform appendix whether catarrhal or suppurative. If early operation is insisted on the pus cases with fæcal fistula and other annoying complications would not exist. The question is asked: "Should we operate in every case?" When the peritoneum is affected and distended, skin leaky, temperature subnormal, pulse rapid, feeble and compressible, my answer is negative. In cases of this nature the system is overrun with sepsis and a general anæsthetic produces too great a shock. In such a condition I would prefer to use a local anæsthetic, opening the abdominal wall and irrigating as much as possible by means of a normal saline soultion.

The arterial supply of the appendix is from the mesenteric artery which may be compared to the trunk of a tree with its branches. By ligating the trunk all supply to the appendix is cut off and this makes practically a bloodless operation. I prefer ligating the artery and tying off the appendix with chromicized catgut, closing the abdominal incision with silk-worm gut, and covering the stump with serous membrane if possible.

I am not an advocate of gauze drainage in appendicitis operations. This frequently causes excessive exudation of lymph which may result in annoying peritoneal adhesions and lifelong discomfort to the patient. Its use leaves a weak spot in the abdominal wall inviting the development of hernia. If also acts as a foreign body; and I have known it to depress a patient as well as prolong the condition of shock. Iodoform gauze does not drain well and is very apt to cause iodoform poisoning. If the greater part of the toxic material be removed by careful irrigation the lymphatics and leucocytes will attend to the rest much better than the surgeon with any complicated device.

When I see a case in its early stages I try to avoid the use of opium and its alkaloids, since it locks up all the secretions except that of the skin and masks the progress of the case. Morphia may be used in small doses if the pain is very great. Fractional doses of hydrargyri chloridi mitis *eum* sodii bicarbonatis may be given to arrest the nausea and clear out the digestive tract, while enemas of soap suds

with turpentine are found effective. The advantage of having the intestinal tract empty during an operation is plain to any surgeon.

AFTER TREATMENT. I do not give morphia for the reason already stated. Although the patient complains of pain it does not last longer than fifteen or eighteen hours. Cases do best on a liquid diet from ten to fourteen days. I have noticed that the tongue is much coated, and the breath offensive in some cases even in the presence of normal pulse and temperature and the patient on the road to rapid convalescence.

The following is copied from my case book: F. M., male age 17, labourer. Previously in good health with no former serious illness. Week before consulting me had cramps for two days. Said he got some better. Constipation from that attack until I saw him Nov. 15th, 1901. Night of Nov. 14th, 1901, attack of cramps, suffered all night. Nov. 15th, 11 a. m. temperature 100,° pulse 100. Cramps and rigidity of abdominal muscles. Ordered turpentine stupes, enemas and fractional doses of calomel. Pain so great forced to give 1 grain of morphia hypodermically; 5 p.m. patient still in pain, enemas effective. Had to give another \frac{1}{8} grain of morphia hypothermically. Advised immediate operation. Patient consented. Operated on at Victoria Public Hospital at midnight. Abdomen scaphoid Tenderness greatest above McBurney's point. Incision two inches long. Appendix found post-cæcal, pointing upwards with abscess in distal end ready to break. Appendix removed with ease. Wound closed. Temperature normal on third day after operation and continued so all through convalescent period. All of superficial and part of deep sutures removed on fifth day. Remaining deep ones on seventh day Wound not dressed again until the twenty first day. On the twentyfirst day patient fitted with abdominal pad; left hospital cured.

In conclusion I may say that my only cause for regret has been not that I operated upon a case of appendicitis but that I did not operate earlier.

SENILE PERITONEAL TUBERCULOSIS.*

By ARTHUR BIRT, M. D. (Edin.), Berwick, N. S.

At the risk of harping on a rather hackneyed theme, I venture once more to direct your attention to the subject of tuberculous disease as it effects the serous membranes. I do so with the more confidence because the case with which I shall attempt to illustrate my text forms a rather striking contrast as regards the age of the patient, the difficulty of diagnosis, and the results to be expected from surgical procedures, to the one which I had the pleasure of bringing to your notice at the Maritime meeting last July

Case Report The patient in the present instance was a nulliparous, married woman, 60 years of age, of good build, but rather spare and sallow. Her health had been good until the present illness, with but two exceptions, viz., she had suffered for many years from a tendency to looseness of the bowels following diet errors or emotional stress; and, nine months before I saw her, she had passed through what was diagnosed by her physician as an attack of pneumonia, from which she recovered after a few weeks illness, but without regaining all her former strength and vigour. When the patient came into my charge she had already been confined to bed for three weeks suffering from abdominal pains, anorexia and a tendency to diarrhæa.

At this stage the patient did not look noticably ill. There was no definite icterus. The pulse was 80, respiration quiet, and temperature normal. She complained of occasional shooting pains on movement in the upper abdominal segment, "soreness" in the lower epigastric region, and of slight colicy pains on defæcation. The abdominal contour was natural with a slight degree of tumidity (meteorism). Palpation showed a moderate tenderness along the junction of the epigastric and umbilical regions, and over this area there was slight muscular rigidity with a very ill defined sense of resistance. Percussion was resonant all over. Vaginal and rectal examinations showed the uterus rather enlarged, freely moveable,

^{*}Read before the Medical Society of Nova Scotia, New Glasgow, July, 1902.

and lying backwards and to the left; cervix healthy and fornices soft, but slight tenderness on high pressure in left one. No discharge was noted. The rectum was apparently free from disease. Examination of the urine was also negative. The edge of the liver could be made out rather below its normal position, smooth and not tender. The gall-bladder was not in evidence. The spleen did not seem enlarged nor was any information obtained from the blood examination. No enlarged glands were noticed.

With one's attention now focussed on the digestive tract, carcinoma of the stomach was first eliminated by inflation and the test meal, the formal procedure showing an organ of normal size without any obvious growth, the latter proving the constant presence of free hydrochloric acid in fair amount. There was, too, neither nausea nor vomiting. The possibility of the pancreas being the seat of disease was then considered, but the absence of jaundice, the freedom frem stomach symptoms, the absence of sugar from the urine, and of fat excess from the fæces, seemed rather against it although the position of the tenderness and resistance, the fact that it seemed to shift a little with respiration and the clay coloured offensive stools did not to my mind altogether allow disease of this organ to be excluded. The colon now seemed to be the most probable offender, a view which gained some colour from the old history of diarrhœal attacks, which it was thought might have resulted in a chronic colitis with dilatation and thickening, especially as the tenderness seemed to follow the line of the transverse and, to some extent, the ascending colon pretty accurately. The stools, however, contained no excess of mucus and no blood. whilst inflation of the colon seemed to make the resistance more prominent, thus pointing rather to malignant disease of the transverse colon. Against this was the rarity of malignant disease in this precise position, the absence of any definite signs of stricture, of "Wyllie's patterns," of hæmorrhage from the bowel and the bright eye and non-cachetic appearance of the patient. Omental growths were also considered; but, to cut a long story short, the diagnosis remained open for about a month, at the end of which period, the physical signs having developed somewhat, I asked Dr. John Stewart, of Halifax, to see the case with me, with a view to deciding for or against surgical interference.

There was now a rather more marked degree of tenderness in

the epigastric and umbilical regions, and some extension of the transverse area of resistance at their junction, the most painful spot lying a little above and an inch or two to the left of the umbilicus. There was also tenderness and ill-defined thickening to the left of the uterus near the pelvic brim. Vaginal examination gave results as before. There was still slight general tumidity of the abdomen, but no sign of free fluid could be elicited. There was, perhaps, a suggestion of "doughy" feeling on palpation. The patient had lost flesh slowly. Tenesmus was present at intervals, and the motions were pale and and fairly formed. The extension of the tenderness and the ill-defined character of the resistance felt in at least two points of the abdomen, now pointed to involvement of the general peritoneum, either tuberculous or malignant; and, after a careful re-examination under chloroform, the former was selected as the more probable condition, although we did not feel able even yet to exclude malignant disease. The points which decided in favour of tuberculosis were:-The appearance of the patient; the lack of virulence in the progress of the disease; the ill-defined nature of the thickening lelt (suggesting multiple adhesions); the absence of free fluid and of definite nodules, more or less umbilicated; the moderate character of the pain; and last, but not least, the history and residual signs of pleural involvement, this latter giving us (assuming the disease tuberculous) a definite primary focus.

Operation was deferred for the time being and the patient was put, at Dr. Stewart's suggestion, on the treatment recommended by Burney Yeo of late years; viz., a pill of iodoform and creasote, with the regular inunction of an ointment containing iodoform over the abdomen. The usual anti-tuberculous measures were, of course, taken.

Medical treatment, however, proved of little avail and the case slowly but steadily progressed until, at the end of another six or seven weeks, she presented the third and final picture. At this stage the patient was markedly emaciated; the abdomen was greatly distended, the lower segment being now the more prominent, and projecting forward and rather to the right. The squareness of free fluid was still lacking. Over the area of greatest prominence, (Vide Fig.) the percussion sound was nearly flat, with an extremely high pitched tympany on lightest per-

cussion. There was also a vague sense of fluctuation over this area but no "thrill." The flanks, especially the right, were a little more resonant. The abdominal wall was still quite thick in contrast to the general emaciation. As to her symptoms, pain was now much more marked, requiring moderate doses of morphine; it was referred chiefly to the old site and was occasionally felt with great severity in either groin. There was continual regurgitation of food and bile, from compression of the stomach. There was a trace of albumin in the urine. Urination and defectation were difficult, and marked cedema of the sacrum and lower limbs had supervened.

Before the patient had arrived at such a pass the question of laparotomy had been mooted more than once. In view, however, of the patient's age, the anomalous physical signs, the disinclination of herself and relatives, unless some permanent and definite result could be promised, and the rather unsettled state of present medical opinion as to its value in such a case, the idea was reluctantly abandoned. A fortnight before death, permission was given to introduce a trochar to try and reach the encysted fluid, which was presumably present. This was promptly done, midway between pubes and umbilicus, and it was felt to pierce a greatly thickened, gristly peritoneum, but, in spite of various manipulations. I failed to strike the fluid and did not again have an opportunity to try. The patient lingered for two or three weeks and finally died from simple asthenia, owing to continual vomiting of food. In the last few days of her Illness the left pleura was noted to contain some fluid.

Autopsy. A considerable deposit of fat in abdominal wall. Lower part of omentum adherent to abdominal wall, forming with intestine the front wall of a cavity containing a large amount of turbid serum in the lower central zone. Sparsely scattered miliary tubercles on peritoneal surfaces, in mesentery, etc. The resistant mass in epigastric and umbilical regions was composed of laminated adhesions, between thickened omentum, colon, liver, etc. The adhesions were firm and fibrous, and only a few scattered miliary tubercles were detected in the laminæ. Subdiaphragmatic adhesions were also present. Liver moderately enlarged and markedly fatty. Stomach compressed closely under diaphragm. It showed only signs of slight chronic gastritis. Pancreas, spleen

and kidneys appeared healthy. Colon showed nothing internally but chronic muchus catarrh; it was, however, kinked and pressed on by the adhesions and the omentum lying athwart it. Mesenteric glands caseous. Sigmoid showed collection of larger tubercles on it, forming a patch of some little size (this was apparently the tender point noticed to the left of uterus during life). Uterus moderately enlarged, lining showed caseous patches, as did the tubes and ovaries. Left pleura showed a few miliary tubercles; its cavity was half full of turbid serum, and the lung was partially collapsed. The lung was not tuberculous. Right pleura a few old adhesions. No tubercle in right lung. Heart somewhat dilated and fatty. The tubercle bacillus was demonstrated in scanty numbers.

Consideration of the conditions above noted lead one to infer that a two-inch incision would in all probability have evacuated the fluid and prolonged (for a little at any rate) the patient's life. Her age, the pleural involvement, and the extensive adhesions in the upper abdominal zone, seemed to almost prohibit a final recovery. The primary source of infection seemed clearly to be the pleura and dated probably from the old so-called pneumonic attack.

I venture to add a few remarks on the diagnosis of these cases. In the first place we evidently cannot depend greatly upon temperature and pulse. Subnormal temperatures have been frequently recorded, and are not at all uncommon in all forms of tuberculosis in the chronic insane. I have personally noted this more than once in demented patients, found at autopsy to be suffering from tuberculous peritonicis. It may occur also in elderly patients whose reactive powers are on the wane. In the present case the absolutely normal pulse and temperature, persisting until quite late on in the disease, were interesting. The explanation seemed to be:—(a) small doses of toxin (few bacilli), or (b) defective reaction to them in degenerating tissues.

The exclusion of malignant disease in the stomach is, of course, important, but this can be secured by careful palpation, inflation and the appropriate chemical tests. Pancreatic disease might give rise to doubts, especially in the early stage of a case like this where there is no free fluid in the greater peritoneum and the distension and resistance appear first in the upper zone, and

where no portal of tuberculous infection is evident. Its comparative rarity must be borne in mind, and, also, the unreliability of fatty stools and glucosuria as proof of its presence or absence. Before evidence of general involvement of the peritoneum is

present, the possible existence of carcinoma of the large intestine has to be considered. Morris, of London, and Fried. Crämer have recently called attention to the stealthy advance and anomalous symptoms of this condition. Of these latter, attacks of colic, intestinal rigidity, stenotic murmurs, persistent tenesmus, with small, repeated, bright hæmorrhages seem to be the most reliable. In my case there was considerable difficulty in eliminating this condition at one stage of the diagnosis. As soon as it is evident that the general peritoneum is involved, the diagnosis narrows down practically to a separation of tuberculous from malignant disease of that membrane. In this relation the detection of a primary tuberculous, or probably tuberculous, focus in pleura, genital tract, or elsewhere, is all important; and the history gives valuable suggestions. The omental tumor is common to both conditions, and its vagaries are decidedly puzzling. It may form*:—(a) A solid cake-like structure lying on the intestines, and be mistaken for an enlarged liver. (b) Be drawn up, thickened and adherent to abdominal wall. (c) Be quite drawn up and form a hard ridge attached to transverse colon. This occurs in some cases of diffuse malignant disease of the abdomen.

The doughy feeling of the abdominal wall in tuberculosis is very suggestive when it occurs. After all, some cases must remain for a while in doubt. In malignant disease the rapid accumulation of free fluid and the detection of large umbilicated nodules with glandular enlargements, is more common. In either cases the fluid may be sanguineous and characteristic elements wanting. F. P. Henry considers that a peri-umbilical erythema is diagnostic of tuberculous peritonitis, when present.

Into the diagnosis between the acute cases of this disease and typhoid fever, and between the encysted cases and ovarian tumor, I do not propose to enter; the latter is classic, and described in all the text-books, so that it is sufficient to remind you how often the mistake has been made and in what skilled hands. I recently

^{*} Gibson and Russell "Physical Diagnosis," 1902.

was told by a friend of a case that was operated upon for acute appendicitis, in which tuberculous peritonitis became the diagnosis on inspection.

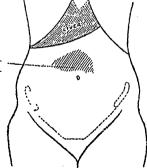
I am aware that within the last year or so there has been a considerable reaction amongst the surgeons with regard to operating on these tuberculous cases.* Some go so far as to hand back all of them to the physician. I think, however, that the bulk of us are agreed, that in the cases with free fluid, no probable adhesions, and fever, drainage by a limited laparotomy is the best treatment. It is such cases as the one I have reported, and those with multiple loculi filled with fluid, in short, the ones that are hard to diagnose and hard to drain, that I would like some of my surgical conferres to advise us on.

At the same time it would be interesting to hear suggestions as to diagnosis or treatment from those who, like myself, have been nonplussed at times by the protean forms of this common but always important disease.

In conclusion, I would like to acknowledge my indebtedness to my able consultant, Dr. Stewart, whose diagnostic acumen and sound judgment were most welcome in the handling of the case.

N.B.-Appended are rough diagrams to illustrate three stages of the case.

STAGE I. ATTEMPTED DIAGNOSIS BY EXCLUSION.



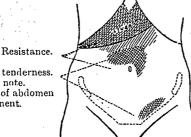
Ill-defined feeling of resistance with slight tenderness.

Symptoms.—Pains in abdomen; looseness of bowels; anorexia; slight loss of weight. Temperature, pulse and respiration, normal.

Signs.—Contour normal; abdomen tympanitic all over; ill-defined feeling of resistance and slight tenderness over region of transverse colon as indicated; no sign of fluid.

^{*} International Clinics, Vol. IV, Fifth Series.

STAGE II. TENTATIVE DIAGNOSIS TUBERCULAR PERITONITIS.



Resistance and tenderness. Sub-tympanitic note. Upper segment of abdomen the more prominent.

Symptoms.—Pain more marked, especially on movement or deflectation; tenesmus; alternate attacks diarrhoa and constipation; slow but steady emaciation. Pulse, 85—90; respiration normal; temperature normal.

Signs.—Distension more marked, but still only slight; contour not much altered; breathing costo-abdominal; marked tenderness and resistance as indicated (Fig. 2); the upper segment of abdomen being more prominent than normal; lower end of liver can be sharply differentiated above the mass; tender thickening in left iliac region to left of retroverted uterus; no sign of free fluid.

STAGE III. POSITIVE DIAGNOSIS--ENCYSTED DROPSY OF PERITONEUM (TUBERCULOUS)
WITH OMENTAL TUMOUR.



Resistance.

Resistance, pain and tenderness.

Area of greatest prominence with high-pitched, almost flat note on percussion. Lower segment of abdomen the more prominent.

Symptoms. Marked emaciation, except of abdominal wall; pain more marked and more continuous, especially over tumor and in groins, tenesmus at times; continual regurgitation of food and bile, difficult urination and constipation.

Signs.—Dulness and absent breath sounds at lower base; abdomen greatly distended, greatest prominence below umbilious and to right (vide figure); over this area percussion sound is nearly flat, with a suggestion of very high-pitched tympany on very light percassion; there is a vague sense of fluctuation over this area, but no real thrill; flanks more resonant, especially the right; marked cedema lower limbs and sacrum rocar midway between pubes and umbilious failed to withdraw fluid.

A CASE OF NEURALGIA OF BRACHIAL PLEXUS AS FIRST SECONDARY SYMPTOM OF SYPHILIS.

By J. J. DOYLE, M. D., Halifax, N. S.

In April, 1902, I was consulted by a well nourished young man who complained of pain in right shoulder radiating down the arm.

The pain set in the week before and had been gradually getting worse and was so severe at night as to prevent sleep. There was no history of injury. Examination of chest and urine was negative. There was no wasting of muscles, no restriction of movement, no definite points of tenderness. Temperature, normal.

I tried phenacetin and salicylates without giving any relief and had to resort to morphia hypodermically. A series of small blisters along the course of the various nerves gave but temporary relief.

I sent the patient to Dr. Weaver to have him try the effect of static electricity. This, also, gave no permanent relief. Several weeks afterwards, Dr. Weaver wrote to me that he had found a copper coloured rash on chest and back and a hard chancre on penis. The patient was then placed on specific treatment, and within a week all pain had disappeared and there has been no return.

[G. Gordon Campbell, of Montreal, reports a somewhat similar case—"Severe Facial Neuralgia as First Secondary Symptom of Syphilis," Montreal Medical Journal, Aug., 1901.]

Correspondence.

A VISIT TO PARKE, DAVIS & CO'S. LABORATORIES AT DETROIT AND WALKERVILLE.

To the Editor. Maritime Medical News.

Dear Sir:—It was my good fortune by the kind invitation of Mr. E. G. Swift, general manager of the Canadian branch at Walkerville, that I visited the extensive laboratory at Detroit, which is so well known not only in Canada, but throughout the United States, and in many parts of the world.

On my arrival I was most cordially received by Mr Swift and the heads of the different departments, and after spending a very pleasant conversation, there being present Mr. Barker, of St. John, N. B., and Mr. Johnson, of Prince Edward Island, and others, I was placed in the hands of Mr. Harold B. Boulden, who conducted me and explained completely the full details of the different workings of the several departments, and I must here convey my thanks and appreciation for the valuable and instructive information he imparted, and his kind attention paid me while in the city.

Our first visit was to that part of the laboratory which is especially and exclusively used for the storing of crude drugs. Here will be found hundreds upon hundreds of original packages of drugs, as imported direct from different parts of the globe; and it was most particularly interesting to examine the different shapes and kinds of packages in which they are imported. Then proceeding to the next floor we came to the grinding and sifting department where the drugs are prepared to be submitted to the different stages of manufacture. From there we made our way to the basement where the fluid extracts are stored after completion and ready to be bottled, it being estimated that over eight hundred thousand pints were stored and ready for the market.

Our visit to the pill and tablet department was most interesting. It was really wonderful to witness the thousands of pills, tablets and triturates that are daily manufactured; the different kinds of ma-

LACOTOPEPTINE TABLETS.

Same formula as Lactopeptine Powder. Issued in this form for convenience of patient—who can carry his medicine in his pocket, and so be enabled to take it at regularly prescribed periods without trouble.

"Everything that the science of pharmacy can do for improvement of the manufacture of Pepsin, Pancreatine, and Diastase, has been quietly applied to these ferments as compounded in Lactopeptine."

—The Medical Times and Hospital Gazette.

CAN BE ORDERED THROUGH ANY DRUGGIST.

SAMPLES FREE TO MEDICAL MEN.

NEW YORK PHARMACAL ASSOCIATION,

SS WELLINGTON STREET WEST, TORONTO.

Liquid Peptonoids with Creosote

Beef, Milk and Wine Peptonised with Creosote,

Liquid Peptonoids with Creosote is a preparation whereby the therapeutic effects of creosote can be obtained, together with the nutritive and reconstituent virtues of Liquid Peptonoids. Creosote is extensively used as a remedy to check obstinate vomiting. What better vehicle could there be than Liquid Peptonoids, which is both peptonized and peptogenic? It is also indicated in Typhoid Fever, as it furnishes both antiseptic and highly nutritive food, and an efficient antiseptic medicament in an easily digestible and assimilable form.

In the gastro-intestinal diseases of children, it also supplies both the food and the remedy, thereby fulfilling the same indications which exist in Typhoid Fever.

Each tablespoonful contains two minims of pure Beechwood Creosote and one minim of Guaiacol.

Dose.—One to two tablespoonfuls from three to six times a day.

THE ARLINGTON CHEMICAL COMPANY.

---TORONTO.

"BOROLYPTOL"

Is a combination of highly efficient antiseptic remedies in fluid form designed for use as a lotion whenever and wherever A CLEANSING AND SWEETENING wash is required. It possesses a delightful balsamic fragrance and pleasant taste, and can be employed with great advantage.

AS A CLEANSING LOTION AS A VAGINAL DOUCHE AS A NASAL DOUCHE AS A MOUTH WASH AS A FRAGRANT DENTIFRICE.

THE PALISADE MANUFACTURING CO.

Samples sent on application.

88 WELLINGTON STREET West, TORONTO



BOVRIL

By Special Appointment Purveyors to His Majesty the King.

BOVRIL IS A PERFECT FOOD.

Unrivalled for invalids and persons of weak digestive power, it is so palatable and easily assimilated.

BOYRIL contains all the nourishing properties of the finest lean beef, in the most concentrated and easily digestible form at present known.

It is infinitely more nourishing than home-made beef tea or extract of meat.

You can
Buy
Medical
Books

from us at **PUBLISHERS' PRICES** and in some cases for less,

When you want

(****************

LETTER PAPER, BILL HEADS or Stationery of any kind, drop a post

or Stationery of any kind, drop a post card for samples and prices.

T. C. ALLEN & CO., HALIFAX, N. S. chinery used in the manufacturing of these forms of medicine; the hundreds of girls employed in coating, and the complete and great accuracy in which every pill and tablet is examined before they are sent to the bottling and labeling department. It was estimated that about eighty thousand were made daily

This establishment covers an area of six city squares, or about fifteen acres, independent of their manufacturing department. They have their own fire protection, printing and critical departments, box manufacturing, machine shop, reading and circulating library for the use of their employes which number about fifteen hundred, so one can form an idea of the facilities and extensiveness of this establishment.

This does not include the Canadian branch at Walkerville, in which the same accuracy and precision is carried ont, only not quite on as an extensive scale. I was informed that seventeen truck loads are shipped daily from this laboratory.

Their travellers are about two hundred and fifty who are constantly on the road bringing to the notice of the medical profession the virtues and merits of the products of their firm.

In connection with their main building, they have under construction a large four story brick building termed as a Research Laboratory, being fitted up with the most modern improvements and equipped with the latest and modern appliances, to theroughly carry out bacteriological work. The cost of the building alone will be about two hundred thousand dollars.

A visit was also made to their large commodious stables which have recently been completed at the cost of nearly twenty-five thousand dollars, built of iron and steel, not a particle of wood in the whole structure, with concrete floors and fitted up with the latest improvements. Here are stabled a large number of horses and calves, who are under the supervision of competent veterinary surgeons, and where they prepare their antitoxin and vaccine. These stables are daily washed out by turning on a hose. In connection with these stables is an operating room under the charge of physicians.

Having spent the best part of two days in examining this establishment, I was much impressed with the large number of young men employed at, which appeared to me, the most important point in the laboratory, and that is analysing and testing the different products after they are completed, and which are submitted to them for final

examination to ascertain if they come up to the required standard before they are given to the public. I asked my friend, Mr. Boulden, what qualifications were necessary for these young men to fill these important positions? He informed me that all of them have had a thorough college training and are graduates as chemists, pharmacists and physicians from the best schools in America and abroad.

Finding my time had about expired and wishing to be present at the Canadian Medical Association at Montreal, I had to shorten my visit which to me was of much interest and profit, but before doing so I beg to thank Mr. Swift for this unexpected and pleasant visit, and also to Mr. Boulden for his kindness in showing me the beauties of Detroit which shall long be remembered by me.

CHARLES E. PUTTNER, PH. M.

Victoria General Hospital.



THE

MARITIME MEDICAL NEWS.

A MONTHLY JOURNAL OF MEDICINE AND SURGERY.

Vol. XIV. HALIFAX, N. S., NOVEMBER, 1902.

No. 11.

Editorial.

OUR RELATION TO INSURANCE COMPANIES.

Life insurance has of late years become such an important factor, that the relation to it of medical men is well worth serious consideration. While a number of companies, Canadian, British and American, are most honorable in their dealings with their medical examiners, paying them adequate fees, relying upon their decisions, and retaining them in office unless some grave reason arises for a change, there is a large and ever increasing class of insurance companies whose agents prey upon the doctors. The modus operandi is quite well known to medical men residing in the larger towns—at any rate to such as have been in practice for a few years, but it is for those who are entering or have recently joined the profession that we wish to sound a note of warning. They will be wise to take heed of what has happened to their predecessors.

Firstly, they should take heed lest they be induced to go on the bond of an insurance agent. These bonds, apparently innocent guarantees of an agent's honesty, are in many cases guarantees of his earning capacity, being security for advances which are made to him to carry on the business of his company. No ordinary guarantee company will give these bonds, so frequently the medical examiners with the prospect of examination fees are induced to sign them.

Next comes the question of taking insurance. Dr. A. is a young

422 EDITORIAL.

and energetic practitioner, full of enthusiasm, and with a great capacity for work. He is approached by the agent of a second or third rate company who, introducing himself and his business, offers to make the doctor an examiner for the company conditionally on his taking a policy, assuring him that the examination fees will more than pay his annual premium. Dr. A thinks the scheme a good one, and pictures himself working for twenty years for the company, at the end of which time he will have the capital amount of his insurance to his credit. These hopes are, however, doomed to disappointment. During the first twelve months, Dr. A, by assiduous attention to his work, and by being at the beck and call of the agent at all hours, succeeds in earning a considerable proportion of his premium in fees, probably paying fifty per cent. in cash. In the following year the doctor is surprised to find a great falling off in his work, and on inquiry discovers that Dr. B is now doing the company's examining, the new appointment having been made at the request of the agent, who has doubtless held out to Dr. B the same inducements that worked on Dr. A's credulity. Dr. A has no redress; he must either carry the insurance for cash payments or drop it, losing his cash and his year's work. As the insurance is usually taken without great necessity for it, it is dropped, and having no surrender value, a year's examining and a considerable amount of cash is wasted.

The change of examiners is sometimes more excusable when it occurs with a change of local management, but even then it is liable to abuse.

The company which lightly changes its examiner loses the guarantee against bad or indifferent risks which a continuity of examinership secures. Such a company should also lose the apport and recommendation of the medical profession. We should advise our friends against taking insurance in companies which, unfair in small things, cannot be trusted to act honestly in greater affairs.

ARTICULAR RHEUMATISM.—Dr. F. W. Stewart, late assistant physician to Milwaukee County Hospital, reports excellent results from the use of Lambert's Lithiated Hydrangea in the treatment of two cases of complicated articular rheumatism due to excess of uric acid in the system, and which had resisted the remedies usually prescribed in such cases. The lithiated hydrangea was administered in one dram doses three times daily; the effects were prompt and satisfactory, a complete recovery resulting after two weeks' medication and diet.—Peoria Medicat Monthly.

Society Meetings.

NOVA SCOTIA BRANCH BRITISH MEDICAL ASSOCIATION.

The annual meeting of the Nova Scotia Branch of the British Medical Association was held at the Halifax Hotel on Wednesday evening, October 15th the President, Dr. T. W. Walsh, in the chair.

The minutes of last meeting and report of council were read and adopted. The average attendance of members for the session of 1901-1902, in which there were eleven meetings, was over seventeen. The report proved conclusively that the past year was the most successful in the history of the branch, not only in attendance but in the merit of the papers and discussions which took place.

The election of officers for 1902 03 resulted as follows:

President-Dr. G M Campbell.

Vice-President-Dr F. W Goodwin.

Treasurer-Dr. A. I. Mader.

Secretary—Dr. C. D Murray, (re-elected.)

Council—Drs. Ross, Murphy, Kirkpatrick, Trenaman, Hattie, Jones and Major Peeke.

Representative on the General Council of the Association—Surgeon-General O'Dwyer, A. M. S. (re-elected.)

MEDICAL COUNCIL OF YUKON TERRITORY.

The election of members for the Medical Council of the Yukon Territory took place in July last.

After a keen and close contest, the following were elected officers:

President—Dr. McLeod.

Vice-President-Dr. Barrett.

Registrar and Secretary-Dr. Edwards.

Executive—Drs. Barrett, Sutherland, and Alfred Thompson with the President and Registrar as ex-officio members.

Dr. McLeod is a native of Prince Edward Island. Dr. Thompson is a Nova Scotian and a graduate of Dalhousie University.

Personals.

- Dr. D. H. Muir, of Truro, who has been seriously ill for some weeks, is reported slightly improved.
- Dr. S. E. Shaw, of Waterville, was married last month to Miss Crispo of the same place.
- Dr. M. T. McLean, of North Sydney, and Miss Lehigh were united in marriage last month. The bride was formerly the efficient teacher of elocution at the Halifax Ladies' College.
- Dr. C. P. P. Cameron, (Dalhousie, 1902), is practising at Broad Cove, C. B.
- Dr. M. A. O'Brien, (Dalhousie, 1902), of Noel, arrived at the Victoria General Hospital on the 10th instant suffering from strangulated inguinal hernia. He was successfully operated on by Dr. N. E. McKay the same day.
- Dr. H. E. Kendall, of Sydney, has gone to New York to take a course in electro-therapeutics and will provide himself with an X-ray outfit.

notes.

IN THE SICK ROOM.—As before mentioned, Bovril is a builder up of the system after wasting illness. So palatable, so thoroughly digestible is it, that the most fastidious can take Bovril when other foods, either liquid or solid, are rejected. Bovril administered to the enfeebled under these conditions maintains strength and vitality, gradually invigorating the system until convalescence leads to complete recovery.

HYPERTROPHIED PROSTATE WITH DIFFICULT MICTURITION.

For an old gentleman, seventy-four years of age, who was suffering from hypertrophied prostate with difficult micturition, I prescribed Sammetto. The results were favorable, and after taking two bottles of Sammetto, he was so much improved as not to require the use of the catheter, which he had been compelled to use for several months previous at least once in twenty-four hours. I have since prescribed Sammetto in five similar cases with equally good results.

E. C. CULBERTSON, M. D.

Кепти, Оппо.

MEMBRANOUS COMPLICATIONS.

(Throat, Bronchi and Lungs.)

Under the above heading we find the following by Walter M. Fleming, A. M., M. D., New York City, in the September number of *The Medical Era:* "With all the experience of more than a quarter of a century, in the treatment of winter cough, and its complications of laryngeal, bronchial and pulmonary irritability, also dyspnœa, asthmatic

spasms, and finally whooping cough—usually the most persistent and tenacious of all of these membranous maladies—I find no one remedy more strongly indicated, or which yields more prompt and satisfactory results than Antikamnia and Heroin Tablets, composed of antikamnia 5 grains and heroin hydrochloride 1/12 grain. The purpose of this combination is manifest at once, for it provides primarily, a respiratory stimulant; secondly, a soothing sedative to the irritable mucous membrane and thirdly, an antipyretic and analgesic. Result:—A prompt and efficient expectorant, which at once relaxes the barsh and rasping cough, and releases the tenacious, sticky and gelatinous mucus, while its soothing influence is at once manifested, greatly to the comfort and contentment of the patient."

HOT HOUSE PLANTS.—Refinement in matters of social life proceeds hand in hand with refinement in other lines as civilization advances. From the standpoint of the physician and of the anthropologist, it is a question whether the physical side of mankind is im-

proving or degenerating.

The inethod of bringing up children, especially in the families of the well-to-do, is too often a serious menace to the child's health and development. Too much indoor life, too much supervision, too little freedom of motion and of will is undoubtedly the cause of the many weaklings seen in the families of the wealthy. Such children have the character-

istics of hot house plants.

The remedy is, of course, to do away with the surplus care and attention bestowed on the child, to let the child do more for itself, have more freedom, more fresh air, more play with other children. Foods and medicines are only temporary helps for child weakness. Such a medicine as Scott's Emulsion of Cod Liver Oil, or the hypophosphites, or some of the beef preparations, may be needed to give new strength and restore flesh—but nature is its own best doctor and in the end can take care of "hot house children" if fond parents will only give nature a chance.

PINOCODEINE—An admirable expectorant and sedative, containing fgr. codeine phosphate to the drachu, in combination with valuable expectorants and astringents—is pretty generally prescribed by the profession. The full formula will be found in advertisment page —.

Blood for Bables.—In the course of the second year there comes a time when the milk diet begins to be insufficient for the growing child, and Nature calls for a change, while yet the system is in many cases unprepared for solid food. This kind of deadlock results in diarrhea or constipation, anæmia, restlessness, fretfulness, etc. In such cases the fit and radical remedy will be found in the administration of say ten drops of bovinine in a little milk, at intervals of three hours.

Little Robert Valverdie, a patient who came under my care in the condition of malnutrition above described (after trying all the usual medical helps with no benefit), was immediately restored by the direct blood treatment. On the second day of taking bovinine, the constipation and other trouble began to be relieved, and on the third day all signs of ill health had disappeared as if by magic. This simple treatment was continued for three weeks, the child thriving beautifully.—Case reported by Dr. T. J. Biggs.

HOW TO ASSIST YOUNG GIRLS TO WOMANHOOD.

By EDWARD C. HILL, M. D., DENVER, COLORADO.

The primary establishment and the menopausal cessation of menstruation are the two crucial physical epochs of woman's life. The change from maidenhood to womanhood is one that involves the whole body, and manifests itself alike in the form, the voice and the sexual and nervous phenomena. In an ideal state of perfect health this transition into puberty should be as natural and uneventful as gliding from sleep into consciousness. Owing, however, to the present civilized modes of living, the cerebral development of young girls is fostered and forced to a degree that deprives the remaining tissues and organs of their necessary nutrition, and too often we are called to treat pelicate girls that are like buds blasted in the blossoming. Many a woman traces back

a prolonged existence of semi-invalidism to exposure and lack of care at the early menstrual periods. Tight lacing also predisposes to pelvic disorders by interfering with circulation and exciting uterine displacements. The strain of puberty upon the nervous and blood-forming structures may be too great in a subject hereditarily deficient in vital resistance and adaptability. So we may count among the morbid incidents more or less peculiar to puberty, chlorosis and anemias, general debility, neurasthenia and hysteria, acute pucumonic phthisis, chorea and helephrenia.

According to Emmet, more than half of all women who have suffered at puberty from menstrual derangements are sterile and delicate in after life. Skene has stated that his observations showed that the vast majority of incurable diseases peculiar to women originate in imperfect development and consequent derangement of function. This development is either primary, during the embryonic stage, or secondary, at puberty. Defects in the former are irremediable, whereas secondary deviations from the

normal standard are both preventable and curable in most instances.

It is important in connection with the subject under consideration to bear in mind the essential reciprocal relations of the reproductive system and the general organization. As V chow says, all the specific properties of woman's body and all her sexual development is natural and complete and in line with a healthy general organization. A beautiful illustration of sexual dimorphism has been furnished by Prof. Max Weber (quoted by Skene), who presented the case of a chaffinch in which the left side of the body had the female coloration and the right side that of the male bird, the two colors being sharply limited at the middle line. The bird was hermaphrodite with a well developed ovary on the side of the female plumage, and a testicle on the opposide side. The phenomena of menstruation offer the most palpable evidence of the onset of puberty. The precise nature of this rythmic cycle is overshadowed by a jungle of theories, and, as Millikin well says, we can do no better in the present state of our knowledge than accept menstruation as a habit which has been nailed upon our race by hereditary, and which is for us an ultimate biologic fact.

Normal menstruation in temperate climates generally begins in the fifteenth year. In the tropics it appears much earlier, so that in Mexico one may see a grandmother of only twenty years. Within the Artic Circle Eskimo girls do not generally arrive at puberty until the eighteenth year. City girls usually have the menstrual flow earlier than do hard working country girls, in whom muscular exercise has the same derivative effect on the pelvic blood supply as too intense devotion to study. The time, amount and character of the menstrual flow vary normally within wide limits. The menstrual cycle for different individuals ranges in perfect health from two to six weeks. The average duration in the temperate zone is about four days. Soaking more than three napkins daily is considered abnormal. Anemic girls, as a rule, tend to menorrhagia; chlorotic ones, to scanty menstruation. Clots are present when the amount of blood is great, or the mucus and fatty acids scanty. A periodic white menstruation, from supersecretion of the uterine glands, is not infrequently noticed in the intervals midway of menstruation.

Menstruation is or should be a perfectly physiologic process. In the virgin disorders of menstruation of whatever nature are nearly always dependent upon the defective nutrition of the reproductive organs, and this in turn upon a blood supply insufficient in quality or in quantity. In the great majority of cases, therefore, our efforts to aid nature in effecting the transformation of the girl into a woman, should be in the line of a happy balance of nutrition between the special female organs and the body as a whole.

Hygenic measures are of the first importance. Fresh air and sunshine are always in order. Exercise is especially indicated for the fat and flabby chlorotic girl, and her diet should be restricted in sugars and starches. The highly active, intelligent girl must rest from her studies and try to become a little lazy. Proper precautions should be taken in regard to reasonable care of the person at the time of the monthly periods. Yet the physician should beware of unduly alarming his littlepatient, and so bringing about a condition of hypochondriacal valetudinarianism. Simple cleanliness is certain to do no harm, but good. The conservation of the general health and vigor is the chief factor in maintaining safe and easy menstruation.

In spite of hereditary defects, if the physician could have full control of the diet, clothing, hygiene and environments of the little girls in his clientele up to the date of puberty, but little if any medication would be then required. Unfortunately, however, the lack of harmonious development in the preadolescent period necessitates consider-

able medical attention to secure a normal course for the critical metamorphosis of puberty, whose influences, as Du'dley remarks, are fundamental, not only in the reproductive organs, but in the entire woman. Actual pain at the menstrual period in the young virgin may be considered always pathologic, and the same is true of menorrhagia or very scanty menstruation. Such abnormalities of function should direct our attention to the state of nutrition especially. The obese, chlorotic girl must take more exercise; the thin, delicate, sensitive girl, more rest. Fresh air and sunshine are needed in every instance. Red meat, eggs and other blood-forming foods should be taken in such quantities as can be well borne. The appetite for wholesome nutriment should be encouraged, if need be, by stomachic stimulants, such as the official clixir of strychmin, pepsin and bismuth. The use of bromides, coal-tar analgesics and diffusible stimulants at the menstrual periods can be regarded only as a temporary makeshift.

The most constant and positive clinical sign of imperfect puberty is deficiency of the blood in red corpuseles and hemoglobin, the chlorotic type being perhaps more common than the simple anemic in relation to menstrual disorders. Hemic defects and malnutrition act reciprocally as cause and effect. The oxidizing life of the blood is in the iron it contains, with about one-twentieth as much manganese. The total iron of the adult body amounts to but 2.5 or 3.5 grain, chiefly in the form of hemoglobin. The normal daily content of iron in the food of an average diet, is, according to Stockman, from five to ten milligrams. When absorbed, as in health, this food-iron replaces the metal continually lost by disintegration of blood corpuscles and excretion. The round of iron in the body seems to be from the duodenum to the mesenteric glands, thence to the thoracic duct, the general blood current and the spleen, from where it passes to the liver to be synthetized into hemoglobin for the red cells, on the breaking down of which the dissociated iron is climinated by way of the large intestine.

The use of iron in anemic and chlorotic conditions is, of course, a cardinal principle in therapeutics. In girls becoming women, to supply a deficiency of erythrocytes or hemoglobin, one might infer at first thought that the best method would be to administer hemoglobin, that is, blood in some form. Chemistry proves, however, that when hemoglobin is taken into the stomach it is changed by the acid there to hematin (causing the coffee-ground color of small gastric hemorrhages), which, according to

Cloetta, passes down the alimentary tract without being absorbed.

Most authorities conclude that inorganic compounds of iron in order to be absorbed must first be changed to albuminates by combining with food matters. All albuminous substances are hydrolyzed to peptons before they are capable of absorption. Hence it follows that peptonate of iron is the preparation most likely to be readily and completely absorbed and assimilated. The best remedy of this composition, I think, is Gude's Pepto-Mangan, which I have used for the past ten years with great satisfaction,

particularly in the hemic and nutritive disorders of female puberty.

This neutral solution contains three grains of iron and one grain of manganese in each tablespoonful. The latter ingredient is doubtless to be credited with a large part of the nearly specific effect of the remedy in functional menstrual derangements. The preparation is pleasant to the eye, agreeable to the palate and has the great advantage over inorganic iron compounds of not corroding the teeth, deranging digestion nor inducing constipation. According to the nature and severity of the case, the dose varies from a teaspoonful to a tablespoonful. It is well taken in milk or sherry just after meals.

The following brief clinical notes may serve to illustrate the facts above stated. The blood count in each instance was made with the Thoma-Zeiss hemacytometer; hemoglobin was calculated by the Hammerschlag specific gravity method. I need hardly remark that the blood findings at the altitude of Denver are normally higher than at

points near sea level.

Case 1. Jose K., 15 years, thin, delicate and somewhat strumous, had menstruated irregularly and intermittently for 16 months; erythocytes 3,600,000, hemoglobin 58 per cent. She was taken out of school, put on a diet largely protein, given aloin, strychnin and belladonna pills for her bowels, and for her blood, Pepto-Mangan (Gude), a dessert-spoonful four times daily after eating. Under this treatment she made an average weekly gain of 14 pounds in weight, about 150,000 red cells and 34 per cent. hemoglobin, and was discharged cured in ten weeks.

Case 2. Alice R., 18 years, rather stout but pale, with greenish tinge; complained of palpitation and breathlessness on slight exertion; menstruction barely begun and scanty. She was made to take gradually increasing exercise on her bicycle, a cool

bath every morning, less carbohydrates and more proteins in her diet, and Pepto-Mangan (Gude) in the dose above mentioued. She recovered from all her morbid symptoms within four months, and has since married and given birth to two healthy

children.

Case 3. Amelia B., 23 years old, an overworked servant girl, had suffered since the periods first began, nine years before, with marked dysmenorrhea, the flow being prolonged and scanty. The red blood cells numbered 3,500,000 per cu. m. m., with proportionate oligochromia. She was induced to rest at home and take six eggs daily, along with other nourishing food and Pepto-Mangan (Gude), a dessertspoonful four times daily an hour after food. She made a very rapid recovery, the red cells running up to 4,900,000 within two months and the menstrual periods becoming quite normal. By exercising proper care she has remained well for the past eight years.

Case 4. Office M., 13 years, blonde, thin, active, sensitive, a hard student, just beginning to menstruate, the flow heing scanty and accompanied with pain. The blood count was 63 per cent. of normal, the color index 57 per cent. Under treatment similar to thet mentioned in the first case, she became round and rosy, menstruated freely and easily, took on 17 pounds in weight and raised the blood findings above the normal at

sea level, all within eight months.

Case 5. Fannie R., 17 years, active, ambitious, intelligent, had such excruciating pain all through her menstrual periods for two years as to cause actual wasting. Physical examination revealed nothing abnormal except an undersized uterus. She was given Pepto-Mangan in tablespoonful doses three times a day, and was told to lie with the head lower than the hips. After three months' treatment the periods became quite painless, and have remained so for five years.

CASE 6. Flora J., 16 years old, began to menstruate profusely a year before, since which time she has been always ailing; erythrocytes 3,100,000 hemoglobin 63 per cent. She was given cool baths and massage, a bitter tonic, laxatives and Gude's Pepto-Mangan in dessertspoonful doses. When discharged cured, five months later, the

blood count was 4,700,000, hemoglobin 95 per cent.

Case 7. Maggie W., age 15, clerk in a department store, was extremely chlorotic (hemoglobin 28 per cent.), with a soft, systolic basic murmur and some symptoms of gastric ulcer; menstrual molimina but no flow. She was kept in bed at home, fed largely on meat, fish and eggs, and was given Pepto-Mangan (Gude) thrice daily, a tablespoonful at a time. The functional murmur soon disappeared, the iron in the blood came gradually up to normal, the patient lost in weight as she gained in health, and menstruation appeared regularly.

CASE S. Nora R., 14 years, healthy in appearance, but neurasthemic; no trouble with menstruation, except at this time she became more nervous and developed a rapid pulse and some swelling of the thyroid gland. For this incipient exophthalmic goiter she was kept in bed with a cold pack over the thyroid at the menstrual period, and was given Pepto-Mangan (Gude) steadily for six months in dessertspoonful doses. She has

been quite well and free from the symptoms mentioned for over a year.

In conclusion the writer would like to emphasize the peculiar physiologic efficacy of Pepto-Mangan (Gude) in aiding young girls to a normal womanhood, when the crisis of puberty is complicated with any defect in blood-making and nutrition. Its action is prompt and pleasant, and the clinical benefits derived from its use are readily apparent to all concerned. In curable cases it is as nearly specific as any combination of drugs could be.



THE RIGID OS

The condition, when due to spasmodic contraction of the Cervix, prolongs labor and greatly exhausts the vitality of the patient. In view of its common occurence in obstetrical practice, its treatment is of great importance.

A time-tried remedy which has received the endorsement of the highest authorities is

HAYDEN'S VIBURNUM COMPOUND.

"I have presented HAYDEN'S VIBURNUM COMPOUND in cases of labor with rigid os with good success."-H. MARION SIMS, M.D.

Without H. V. C. no obstetrical outfit is complete. remedy is also highly recommended in all menstrual disorders, especially Dysmenorrhea, Uterine Congestion, etc.

All successful preparations are imitated and H. V. C. is no exception.

Bemare of substitution. hiterature on request.

its action is more promptly manifested.

If administered in hot water NEW YORK PHARMACEUTICAL CO., its absorption is facilitated and

BEDFORD SPRINGS, MASS.

ANY EXCESS OF URIC ACID, as indicated by Rheumatic, Gouty and many local manifestations, promptly eliminated by administering HAYDEN'S URIC SOLVENT Samples and literature sent on receipt of express charges,

HOLLAND'S IMPROVED ARCH SUPPORTER.

NO PLASTER CAST NEEDED.



A Positive Relief and Cure for FLAT-FOOT,

of Cases treated for Rheumatism, Rheumatic Gout and Rheumatic Arthritis of the Ankle Joint are Flat-Foot.

The introduction of the improved Instep Arch Supporter has caused a revolution in the treatment of flat-foot, obviating as it does the necessity of taking a plaster cast of the deformed foot.

The principal orthopedic surgeons and hospitals of England and the United States are using and endorsing these Supporters as superior to all others, owing to the vast improvement of this scientifically constructed appliance over the heavy, rigid, metalic plates formerly used.

These Supporters are highly recommended by physicians for children who often suffer from Flat-foot, and are treated for weak ankles when such is not the case, but in reality they are suffering from Flat-foot.

IN ORDERING BEND BIZE OF THOE. OR TRACING OF FOOT IS THE BEST GUIDE.

Sole Agents for Canada: LYMAN, SONS & CO. Surgical Specialists. 380-386 ST. PAULS ST., MONTREAL,

SANWETTO GENITO-URINARY DISEASES.

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

A Vitalizing Tonic to the Reproductive System.

SPECIALLY VALUABLE IN
PROSTATIC TROUBLES OF OLD MEN-IRRITABLE BLADDERCYSTITIS-URETHRITIS-PRE-SENILITY.

DOSE:-One Teaspoonful Four Times a Day.

OD CHEM. CO., NEW YORK.

AN UNPARALLELED RECORD.

FOR FORTY YEARS THE STANDARD IRON TONIC AND RECOSTRUCTIVE.

WHEELER'S TISSUE PHOSPHATES

Has secured its remarkable prestige in Tuberculosis and all Wasting Diseases. Convalescence, Gesta tion. Lactation, etc., by maintaining the perfect digestion and assimilation of food as well as of the Iron and other Phosphates it contains,

AS RELIABLE IN DYSPEPSIA AS QUININE IN AGUE!

Send for interesting Literature on the Phosphates.

T. B. WHEELER, MONTREAL, CANADA.

To prevent substitution, in Pound Bottles only at One Dollar. Samples no onger furnished.

C. G. SCHULZE, PRACTICAL WATCH AND CHRONOMETER MAKER.

---IMPORTER OF-

Fine Gold and Silver Watches, Clocks, Fine Jewelry and Optical Goods,

Chronometers for Sale, for Hire and Repaired. Rates determined by Transit Observation.

All kinds of Jewelry made at shortest notice. Special attention given to repairing Fine Watches

165 BARRINGTON STREET,

HALIFAX, N S.

DOCTORS

Require the very best Cloth in their clothing; something that will stand all kinds of weather and still look well. We carry a splendid range of Scotch and Irish suitings, the best goods made, and sell them at a reasonable price.

e. Maxwell & son, * Tailors.

132 Granville Street. Halifax. N. S.

Kelle

(Successors A. McLend & Sons.)

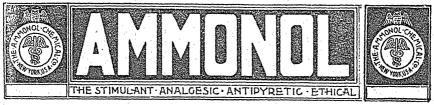
Wine & Spirit Merchants, Importers of Ales, Wines and Liquors,

Among which is a very superior assortment of

Port and Sherry Wines, Champagnes, Bass's Ales, Guinness's Stout, Brandies, Whiskies Jamaica Rum, Holland Gin. suitable for medicinal purposes; also (Sacramental Wine, and pure Spirit 65 p. c. for Druggists.)

WHOLESALE AND RETAIL.

Please mention the MARITIME MEDICAL NEWS.



AMMONOL CHEMICAL COMPANY,

Manufacturing Chemists, NEW YORK CITY.

Gentlemen's Outfitter.

G. R. ANDERSON,

-Importer and Dealer in-

English, Scotch, German and Canadian UNDERWEAR.

Hosiery. Shirts, Ties, Gloves, Braces, Dressing Gowns, Pyjams, Umbrel'as, Waterproof Coats 105 Granville Street -- Halifax, N. S.



DESIGNS COPYRIGHTS &C

Anyone sending a sketch and description may culckly ascertain our opinion free whether an invention is probably patentable. Communications strictly condicatial. Handbook on Patents sent free. Oldest agency for securing patents. Patents taken through Munn & Co. receive special notice, without charge, in the

A handsomely illustrated weekly. Largest cir-Branch Office. 625 F St., Washington, D. C.

SERUMS AND VACCINES ARE MADE

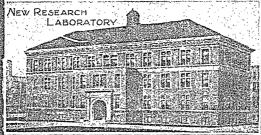
THE TWIN STABLES OF THE BIOLOGICAL DEPARTMENT.













[Our nearly completed Research Laboratory, the new home of our Biological Department, represents a \$160,000 contribution to sedence. It is the largest and will be the most perfectly appointed laboratory building in the United States levoted exclusively to scientific investigation. ... At a cast of more than \$25,000 our Biological Stables have been enlarged, remodels d and equipped throughout with the most modern appliances. Perfect drainage, ventilation and lighting have been provided; scientific methods of drenching, cleansing and disinfection adopted; every detail requisite to rigid asspsis and antisepsis carefully planned and executed—all with an eye single to the safety and purity of our serums and vaccines.]

PREFERRED BY PHYSICIANS.

We are by far the largest producers of Antidiphtheritic Serum and Vaccine Virus in the world.

The unquestioned purity and potency of these products of our laboratories have made them the preferred Serum and Vaccine of the medical profession.

Antidiphtheritic Serum—Hermetically sealed glass bulbs.
Aseptic Vaccine—Glycerinated, cases of 10 tubes and 3 tubes, with rubber bulb.
Points, boxes of 10, each in an impervious envelope.

Always specify Parke, Davis & Co. when ordering.

LABORATORIES:
Detroit, Michigan, U.S.A.
Walkerville, Ont., Canada,
Hounslow, England.

PARKE, DAVIS & CO.

BRANCH HOUSES:
New York, Kansas City, Baltimers,
New Orleans, Chicago;
London, Montreal, Sydney (N.S.W.)