CONTENTS.

Publishers' Department.

List of Advertisers.

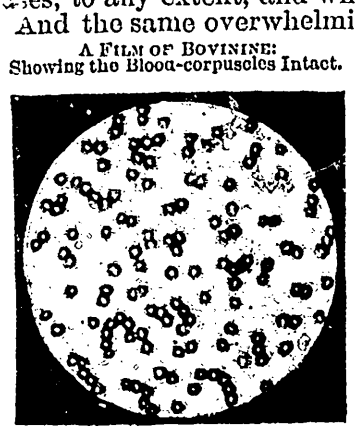
THE CROWNING DEVELOPMENT OF PRACTICAL MEDICINE

IN HÆMATHERAPY, OR BLOOD TREATMENT.

BLOOD, AND BLOOD ALONE, is physiologically ascertained to be the essential and fundamental Principle of Healing, of Defense, and of Repair, in the human system; and this Principle is now proved, by constant clinical experience, to be practically available to the system in all cases, to any extent, and wherever needed, internally or externally.

And the same overwhelming clinical demonstrations have also proved that the Vitality and Power of Bovine Blood can be and are *PRESERVED*, unimpaired, in a portable and durable preparation, sold by all druggists, and known as Bovinine. Microscopic examination of a film of Bovinine will show the LIVING BLOOD CORPUSCLES filling the field, in all their integrity, fullness, and energy; ready for direct transfusion into the system by any and every mode of access known to medical and surgical practice; alimentary, rectal, hypodermical, or topical.

A FILM OF BOVININE:
Showing the Blood-corpuscles Intact.



Micro-photographed
by Prof. R. R. Andrews, M.D.

In short, it is now an established fact, that if Nature fails to *make* good blood, *we can introduce it*. Nothing of disease, so far, has seemed to stand before it.

Apart from private considerations, these facts are too momentous to mankind, and now too well established, to allow any further reserve or hesitation in asserting them to the fullest extent.

We have already duly waited, for three years; allowing professional experimentation to go on, far and near, through the disinterested enthusiasm which the subject had awakened in a number of able physicians and surgeons, and these daily reinforced by others, through correspondence, and by comparison and accumulation of their experiences in a single medical medium adopted for that provisional purpose.

It is now laid upon the conscience of every physician, surgeon, and medical instructor, to ascertain for himself whether these things are so; and if so, to develope, practise and propagate the great medical evangel, without reserve. They may use our Bovinine for their investigations, if they cannot do better, and we will cheerfully afford every assistance, through samples, together with a profusion of authentic clinical precedents, given in detail, for their instruction in the philosophy, methods and technique of the New Treatment of all kinds of disease by Bovine Blood, so far as now or hereafter developed.

☞ Among the formidable diseases overcome by the Blood Treatment, in cases hitherto desperate of cure, may be mentioned: Advanced Consumption; Typhoid Fever; Pernicious Anæmia; Cholera Infantum, Inanition, etc.; Hæmorrhagic Collapse; Ulcers of many years standing, all kinds; Abscesses; Fistulas; Gangrene; Gonorrhœa, etc.; Blood-poisoning; Crushed or Decayed Bones; Mangled Flesh, and great Burns, with Skin-propagation from 'points' of skin; etc., etc.

N. B. Bovinine is not intended to be, and cannot be made, an article of popular self-prescription. As it is not a stimulant, its extended employment in the past has been, and the universal employment to which it is destined will be, dependent altogether on the express authority of attending physicians. Address

THE BOVININE COMPANY, 495 WEST BROADWAY, NEW YORK.

PAUCIN.—Paucin is the alkaloid of the nuts of *Penthaclethra macrophylla*, growing in the Congo States. It is obtained by alcoholic extraction after distilling; the residue is subsequently extracted with petroleum ether, to separate the oil and the other components, the alkaloid dissolved out with dilute acids and liberated by an alkali. It crystallises in yellow foliaceous crystals which melt and decompose at 126° C. They have the formula $C_{27}H_{39}N_5O_5$, are soluble in soda solution, but not in ether or chloroform.—*Pharm. Zeit. f. Russ.*, xxxvi., 295.

DECOMPOSITION OF IODOFORM BY LIGHT.—The decomposing action of the actinic rays on solutions of iodoform has been found, after a time, to cease. Various theories have been advanced to account for this. Fleury considers that the free iodine in solution prevents the passage of the ultra-violet rays. He finds that when reduced metallic silver is placed in the solution so as to combine with the iodine as soon as it is formed, practically the whole of the iodoform is decomposed by light.—*Journ. de Pharm.* [6], vi., 97.

Pneumonia Following La Grippe.

BY M. E. CHARTIER,

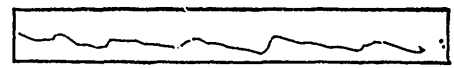
Docteur en Medecine de la Faculte de Medecine de Paris, Membre Correspondant etranger de la Grande Encyclopedie, Section de Philologie.

As a rule certain diseases prove more fatal, not only in given districts, but during certain periods of time, along particular areas of territory. We have La Grippe, decreasing in intensity for the present; it has been replaced by pneumonia, which is not only raging in the United States, but in European countries. The bacteriologists will have to explain this fact; the truth remains however, that the mortality from pneumonia in its various forms is now far in excess of any previous record.

Twenty years ago, and preceding the re-appearance of La Grippe in its epidemic form, pneumonia proved as dangerous as it does at the present time. Many cases fell under my personal observation, and I must admit that my Parisian confreres were at a loss, not for a remedy for the disease alone, but even for a logical line of treatment. Dujardin-Beaumetz became so skeptical that he prescribed stimulants, regardless of therapeutical conditions. The mortality in his ward at the Hotel Dieu proved that his patients fared no worse than the others submitted to the antiphlogistic remedies then en vogue.

At that time, I advocated in my treatise on therapy, the administration of sulphate of codeine in two to five centigrammes doses—one-fourth to one-half grain. Codeine is the only remedy known to me possessing a marked and distinct effect upon the hypersecretions of the bronchial mucous membrane. What I then wished was an analgesic possessing antipyretic properties, which I could safely use. This I have since found in antikamnia and I believe it can be exhibited safely, especially on account of its not having a depressing effect on the cardiac system.

Experimental doses of from one-half to one gramme—seven to fifteen grains—of antikamnia administered under ordinary conditions did not develop any untoward after-effect. The following trace, taken with the sphygmograph was made ten minutes after the administration of one gramme—fifteen grains—of antikamnia.



Pulse, 112. Temp., 101 1-5 Fahr.

The above trace shows plainly that unlike other coal-tar products, antikamnia has a stimulating effect upon the circulation. In this particular case the temperature was sensibly reduced—102° to 101 1-5°. The analgesic effect of the drug was satisfactory.

My conclusion is that in the treatment of pneumonia, antikamnia is indicated as a necessary adjunct to codeine, on account of its analgesic and antipyretic properties and particularly because it acts as a tonic upon the nerve centres. The tablets of antikamnia and codeine containing four and three-quarter grains antikamnia and one-fourth grain sulphate of codeine, to my mind, present these two remedies in the most desirable form. I also find one tablet every hour, allowed to dissolve slowly in the mouth, almost a specific for the irritating cough so often met with in these complications. For general internal medication, it is always best to crush the tablets before administration.

PRUNUS VIRGINIANA. — G. E. Cooley has studied the bark of *Prunus virginiana*, with the view of ascertaining how far the official bark (U.S.P.) collected in the autumn may be distinguished from that collected at other seasons of the year. No distinctive histological distinction was found, but it was observed that a study of the starch grains in the bark gave much information. Barks collected in summer and winter contain little or no starch, the maximum starch content being found in October and early November, just after the fall of the leaves. By the end of November the bark is again nearly free from starch, and remains so throughout the winter, but starch formation begins once more in the spring, reaching its maximum about the end of April when the leaves are bursting the bud scales. Bark collected in the autumn should, therefore, contain much starch. To distinguish bark collected in the autumn from that collected in spring, a test for tannin is applied, as the amount of tannin in spring bark is noticeably greater than in autumn bark.—*Journal of Pharmacology*, iv., 168.

PHOTOMETER FOR X-RAYS.—Mibert and Bertin Sans have devised a photometer which allows of the approximate determination of the comparative value of a tube for radiographic purposes. It consists of a wooden box furnished with two eyelet holes containing a mirror suitably focussed and having a screen of barium platinocyanide on one side. Strips of lead wire are placed at equal distances over the screen and over them a prism of aluminum. The intensity of the light is determined by the number of shadows of the pieces of lead visible on the screen.—*Compt. rend.*, cxxv., 99.

McGILL UNIVERSITY, Montreal.

Faculty of Medicine. Sixty-Fifth Session, 1897-98.

OFFICERS AND MEMBERS OF THE FACULTY.

WILLIAM PETERSON, M.A., LL.D., Principal of the University.
R. F. RUTTAN, B.A., M.D., Registrar.
ROBERT CRAIK, M.D., LL.D., Dean of the Faculty.
J. G. ADAMI, M.A., M.D., Director of Museum.
F. G. FINLAY, M.D., Lond., Librarian.

EMERITUS PROFESSORS.

SIR WILLIAM DAWSON, C.M.G., LL.D., F.R.S. WILLIAM WRIGHT, M.D., L.R.C.S.,
DUNCAN C. McCALLUM, M.D., M.R.C.S. & E.

PROFESSORS.

ROBERT CRAIK, M.D., LL.D., Prof. of Hygiene.
G. P. GIRDWOOD, M.D., M.R.C.S., Eng., Professor of Chemistry.
THOS. G. RODDICK, M.D., Professor of Surgery.
WILLIAM GARDNER, M.D., Professor of Gynæcology.
FRANCIS J. SHEPHERD, M.D., M.R.C.S., Eng., Professor of Anatomy.
F. BULLER, M.D., M.R.C.S., Eng., Professor of Ophthalmology and Otology.
JAMES STEWART, M.D., Professor 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. Sc., Professor of Botany.
WESLEY MILLS, M.A., M.D., L.R.C.P., Professor of Physiology.
JAMES 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., Professor of Practical Chemistry.
JAS. BELL, M.D., Professor of Clinical Surgery.
J. G. ADAMI, M.A., M.D., Cantab., Prof. of Pathology.
H. S. BIRKETT, M.D. Professor of Laryngology.
T. JOHNSON ALLOWAY, M.D., Associate Professor of Gynæcology.
F. G. FINLEY, M.D., London, M.D., 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 Professor of Clinical Surgery.
WYATT JOHNSTON, M.D., Assistant Professor of Public Health and Lecturer on Medico Legal Pathology.

LECTURERS.

T J. W. BURGESS, M.D., Lecturer in Mental Diseases.
J. A. SPRINGLE, M.D., Lecturer in Anatomy.
C. F. MARTIN, B.A., M.D, Lecturer in Pathology and Demonstrator of Clinical Medicine.
W S. MORROW, M.D., Lecturer in Physiology.
JOHN M. ELDER, B.A., M.D., Lecturer in Medical and Surgical Anatomy.
R. C. KIRKPATRICK, B.A., M.D., Lecturer in Clinical Surgery and Demonstrator of Surgery.
J. J. GARDNER, M.D., Lecturer in Ophthalmology.

DEMONSTRATORS AND ASSISTANT DEMONSTRATORS.

J. G. MCCARTHY, M.D., Senior Demonstrator of Anatomy.
D. J. EVANS, M.D., Demonstrator of Obstetrics.
N. D. GUNN, M.D., Demonstrator of Histology.
J. J. GARDNER, M.D., Demonstrator of Ophthalmology.
G. GORDON CAMPBELL, B.Sc., M.D., Demonstrator of Clinical Medicine.
W F. HAMILTON, M.D., Demonstrator of Clinical Medicine.
R. TAIT MACKENZIE, M.A., M.D., Demonstrator of Anatomy.
W E. DEEKS, B.A., Demonstrator of Anatomy.
JAMES A. HENDERSON, M.D., Demonstrator of Anatomy.
J W. SCANE, M.D. Demonstrator of Physiology.
KENNETH CAMERON, B.A., M.D., Demonstrator of Clinical Surgery.
C G L. WOLF, B.A., M.D., Demonstrator of Practical Chemistry.
E. J. SEMPLE, B.A., M.D., Assistant Curator.
J. A. SPRINGLE, M.D., Demonstrator of Anatomy.
W. I. BRADLEY, B.A., M.D., Demonstrator of Pathology.
W. H. JAMIESON, M.D., Demonstrator of Pathology.
A. E. GARROW, M.D., Demonstrator of Surgery and Clinical Surgery.
F. M. FRY, B.A., M.D., Assistant Demonstrator of Pharmacology and Therapeutics.
F. A. L. LOCKHART, M.B., Edin., Assistant Demonstrator Gynæcology.
C.J. WEBSTER, B.A., M.D., Edin., F.R.C.P.E., Demonstrator of Gynæcology.
R. A. KERRY, M.D., Assistant Demonstrator in Pharmacy.
J. J. ROSS, M.D., B.A., Assistant Demonstrator of Anatomy.
A. E. ORR, M.D., Assistant Demonstrator of Anatomy.
A. G. NICHOLS, M.A., M.D., Assistant Demonstrator of Pathology.
H. B. YATES, B.A., Cantab., M.D., Assistant Demonstrator of Bacteriology.

The Collegiate Course of the Faculty of Medicine of McGill University, begins in 1897, on Tuesday, September 21st and will continue until the beginning of June, 1898.

The Primary subjects are taught as far as possible practically, by individual instruction in the laboratories, and the final work by Clinical instruction in the wards of the Hospitals. Based on the Edinburgh model, the instruction is chiefly bed-side, and the student personally investigates and reports the cases under the supervision of the Professors of Clinical Medicine and Clinical Surgery. Each Student is required for his degree to have acted as Clinical Clerk in the Medical and Surgical Wards for a period of six months each, and to have presented reports acceptable to the Professors, on at least ten cases in Medicine and ten in Surgery.

About $100,000 have been expended during the last two years in extending the University buildings and laboratories, and equipping the different departments for practical work.

The Faculty provides a Reading Room for Students in connection with the Medical Library, which contains over 15,000 volumes.

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.

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

A DOUBLE COURSE, leading to the degrees of B.A. and M.D.C.M., 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 lectures and clinics as well as demonstrations in the recent advances in Medicine and Surgery, and laboratory courses in Clinical Bacteriology, Clinical Chemistry and Microscopy.

HOSPITALS.—The Royal Victoria, the Montreal General Hospital and the Montreal Maternity Hospital are utilized 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 in the outdoor department of the Montreal General Hospital alone, last year.

For information and the Annual Announcement, apply to

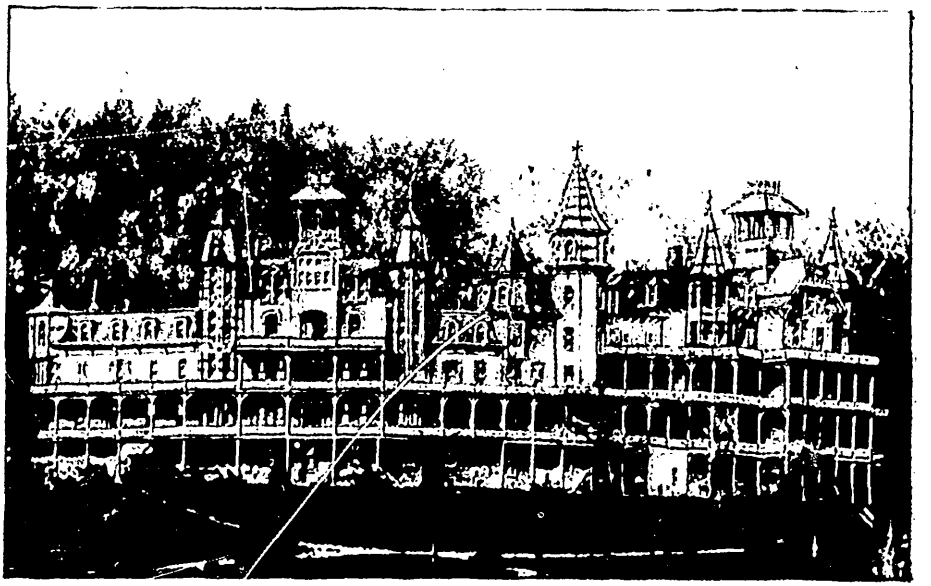
R. F. RUTTAN, B.A., M.D., Registrar, McGill Medical Faculty.

BACKACHE.—It is with pleasure that I give you my experience with Sanmetto. Mr. B., aged forty-nine years, was a sufferer for years from backache, caused from inflamed and overworked kidneys. The pain was so great at times that an opiate had to be given to relieve it. I put Mr. B. on Sanmetto, teaspoonful three times a day. He has never complained of his back since. This has been three months ago.

J. HARVEY BLEDSOE, M.D.
Gold Hill, Ala.

TRIPHENYLALBUMIN.—If dry powdered egg albumin is dissolved in ten times its weight of phenol by being heated for several hours on the water bath and alcohol is then added, a flocculent precipitate is obtained, which washed first with alcohol and then with water, gives an odorless and tasteless body, which is insoluble in hot alcohol, water, and potash solution but soluble in phenol; like ordinary albumin, however, it is subject to fermentation. According to Shimada this body makes an excellent culture medium for bacteria. According to the analysis, three hydroxyl molecules are replaced by as many phenyl groups after the formula— $C_{72}H_{112}N_{18}SO_{22} + 3C_6H_5OH = C_{72}H_{109}(C_6H_5)_3N_{18}SO_{22} + 3H_2O$ —*Pharm. Post*, XXX., 293.

BARBALOIN.—The fact that investigators have proposed no less than nine different formulæ to represent barbaloin has led Leger to investigate that substance. He concludes that the discrepancies of different workers are in the main caused by the ease with which aloin is decomposed, particularly in the presence of alkalis, and even of water. As most workers have employed water in their process of extraction, the body which



WALTER'S SANITARIUM

Walter's Park, near Reading, Pa.

Offers exceptional advantages for the winter treatment of invalids, as well as for the comfortable entertainment of the valetudinarian traveller. Its Southern Location; its dry, pure bracing Atmosphere, absolutely free at all seasons from malaria, mosquitoes and usually from dew; pure, soft spring Water from granite rock springs; its Climate said to be "the finest in the world"; its Scenery declared by travellers "equal to anything in Europe or America," all contribute to make this a great Sanitarium.

It is not less noteworthy as a Sanatorium where sick people may recover health. The building is of Granite Rock, five stories in height, 300 feet front, the product of Canadian genius and work. It is heated by steam and open grates, lighted by electricity, finished and furnished in excellent style. It has hydraulic elevator and extensive appliances for sanatory treatments.

BATHS, MASSAGE, SWEDISH MOVEMENTS (mechanical and manual), ELECTRICITY (Static, Galvanic, Faradaic).

Regularly educated physicians with 25 years' experience with sanatory methods.

We have U. S. money order post office (Walter's Park). Long distance Telephone in connection with READING, PA., and all telegraph offices.

Our tation is WERNERSVILLE, twenty minutes from the Sanitarium, and two hours from READING TERMINAL, PHILADELPHIA.

Terms exceptionally moderate for first-class accommodations.

ILLUSTRATED CATALOGUES FREE.

The value of anything is proved by its imitations. Be sure to address correctly.

ROBT. WALTER, M.D.

Walter's Park, Pa.

they have ultimately obtained has probably not been pure. In his research the author has avoided the use of water, treating the aloes with acetone containing a little glacial acetic acid. The insoluble residue was impure aloin, a portion of which, however, was removed by the menstruum, to which ether was added, partially precipitating the resins. The ether and part of the acetone were distilled off, leaving a syrupy residue, which in a few days formed a mass of interwoven needles. These, with the crystals insoluble in the first menstruum, were united and purified by two or three recrystallisations from methylic alcohol. The body then has the formula $C_{16}H_{16}O_7H_2O$. From water it crystallises in cottony-yellow needles, having three molecules of H_2O. With benzoyl chloride it gives benzoyl barbaloin, $C_{16}H_{14}(C_7H_5O)_2O_7$, and with acetyl chloride, diacetyl barbarbaloin, both of which are amorphous tasteless bodies. From the mother liquors of the acicular barbaloin crystals another form separates out on concentration, in the form of short yellow lamellæ grouped in clusters. These proved to be an isomeric barbaloin containing $3H_2O$.—*Comptes rendus*, cxxv., 188.

AN ANTIDOTE TO THE TWO GREAT SYMPTOMS.—The value of Antikamnia consists in its rapid effect in alleviating the suffering of the patient while more radical treatment is working a cure. While endeavoring to rid our patient of his neuralgia, rheumatism, typhoid, intermittent or malarial fever, we secure him relief from pain and intermission of fever. We have, in short, in this drug, not a remedy for any disease, but a most useful antidote to the two great symptoms—Pain and Pyrexia. —*Medical Reprints*, London, Eng.

PHENYL-HYDRAZINE AND METALLIC NITRATES.—Moitessier finds that the nitrates of metals of the magnesium group unite directly with phenyl-hydrazine, and give crystalline combinations, which give reactions for both their constituents. The cobalt compound, $Co(NO_3)_2.2(C_6H_5.N_2H_3).H_2O$, is prepared by mixing alcoholic solutions in proportion of one molecule of cobalt salt to two or three of phenyl-hydrazine. A precipitate of the compound in minute stellate groups rapidly separates out. The zinc compound, $Zn(NO_3)_2.3(C_6H_5.N_2H_3)$, is at first precipitated mixed with oxide of zinc, from which it is removed by boiling alcohol. It then gives pearly crystals resembling boric acid in appearance. The cadmium compound closely resembles that of zinc. The nickel salt, $Ni2NO_3.4(C_6H_5N_2H_3)$, crystallises in small microscopic rhomboid lamellæ.—*Comptes rendus*, cxxv., 183.

GENERAL PARALYSIS IN THE YOUNG.—Alzheimer (*Allg. Zeitschr. f. Psychiatrie*) has collected the recorded cases of general paralysis of the insane occurring in children and young persons. Thirty-eight cases have been reported, and to these the writer adds three cases observed by himself, one beginning at the age of nine years. Unlike the disease in adults, it occurs with equal frequency in the two sexes. The onset in eight cases was in the 13th or 14th year; in 11 cases it was in the 15th or 16th year, while other cases began a little later. In 28 out of 34 hereditary

syphilis was certain or probable, and in more than half the cases there was some neurotic heredity. The symptoms and pathology were the same as in adults, and the duration of the disease was about 4½ years in most of the cases, but in some was more than seven years.

TARTARLITHINE CURES CHRONIC CASES OF RHEUMATISM.—Spotswood, N. J., Aug. 3, 1896.—Messrs. McKesson & Robbins: Dear Sirs,—Please send me, by mail, four more bottles of tartarlithine tablets (100 each). I will also here state, in justice, that this is the most welcome remedy that has come into my hands since my beginning of the practice of medicine. It has given me, in every case in which I have used it, the happiest kind of results. I have used discretion, perhaps even more than is necessary, in its employment; that it be given to patients whom I believed required such a remedy or preparation; but this is just the kind that refuses to yield to the salicylates, etc., old chronic and of gouty diathesis, where there is a tendency to the calcareous deposits, etc. These are undoubtedly, or have been, at least to me, the most troublesome patients in my practice to give what might fairly be termed good results. Now these have been the very kind in which I have been using tartarlithine with the very happiest results to patients and myself. Many valuable remedies are coming daily to our aid, but this has been the most welcome one to me thus far.

Yours very truly,

J. G. DENELSBECK, M.D.

THE SURGERY OF THE URETER.—Delagénière (*Archiv. Prov. de Chir.*), in a review of operative procedures on

the ureter, concludes that this branch of surgery is at present in its infancy, and that up to a recent date the indications for instrumental interference were not even clearly understood. The recent advance in abdominal surgery, especially the new methods of suturing the intestine and stomach, has of late encouraged surgeons to deal freely with the ureter with diminished dread of the supposed fatal results of supposed urinary infiltration. The advance hitherto made in the surgery of the ureter has been developed at the expense of renal surgery, particulary the operation of nephrectomy. In cases of hydronephrosis, instead of establishing a urinary fistula in the loin, or removing the kidney, the surgeon, after incision of the kidney and catheterism of the ureter, may discover the obstacle to the flow of urine, and remove it by direct intervention. In cases pyelonephritis and pyonephrosis, the gravity of which is often due to insufficiency of the natural drainage of the kidney, restoration of the permeability of the ureter permitting injections, and consequently disinfection of the upper urinary passages, will probably lead to recovery if the ureteral obstacle opposing a free discharge is removed. Ureterotomy, by enabling the surgeon to remove an impacted calculus, will remove a condition which in some instances has had a fatal result.

CANADIAN MEDICAL PRACTICE OFFICE.

An Important Department of Medical Affairs and the only one in Canada managed by a Co-laborer in Medicine, Conducted for the Convenience and Protection of the Profession, for the purchase and sale of practices, the arrangement of partnerships, securing eligible openings, etc. All transactions and communications strictly confidential.

AN IMMENSE LOT OF SURGICAL INSTRUMENTS, good as new, including almost everything, has been left on sale, which will be cleared out at less than half cost. Call and see them when in the city.

Registered Buyers receive private notice of new offers, hence many practices are sold between the issues of the medical journals and never appear therein. **Intending purchasers consult their own interests** by giving this office such information and data of themselves and wants as to enable us to pilot them unto what they desire.

We try to secure reliable openings for physicians **and will offer nothing which will not stand a thorough investigation.** We obtain from prospective buyers their age, qualifications, religious persuasion, financial ability, etc., etc., and a pledge as to secrecy and honorable dealings.

Practices offered independently of this office are generally those which we have rejected as unworthy and undesirable.

We court the patronage of the profession and promise honest effort to secure your wishes, which our accumulated experience in these matters ought to enable us to do.

No 146.—$4,000 practice in town of 1,500 population, North-West Territories; established seven years; on C.P.R.; price, $600 for practice and introduction—away below its actual worth; ill-health forces the incumbent to milder climate.

No. 147.—$3,000 practice; established ten years in western county; population, 1,600; office and stable contents, with introduction, for $600. Incumbent going to Europe for a year.

No. 148.—"Dear Dr. Hamill,—I want to return to Canada to practise and have money to invest in a good thing anywhere. Can you pilot me unto a few so I can make selection."

No. 149.—$2,500 practice in town of 7,000 population in Michigan, with introduction; price, $500; established six years.

No. 150.—$3,500 practice with lovely brick home in County of Simcoe, in town of 1,700 population; weak opposition; chronic bronchitis forces the doctor to go south; price, $3,000; terms about $1,000 cash, balance as desired; one of the best offers I have.

No. 151.—"Dear Dr. Hamill,—I have a few thousands to secure a desirable location in Toronto. What can you offer me?"

No. 152.—$3,500 practice and lovely home; unopposed; fine country; about forty miles east of Toronto; will sell for $1,000 on easy payment terms; less than house alone cost. Might take a partner.

No. 153.—$3,000 practice and lovely home in town of 3,000 population, County of Huron; price, $4,000; easy payments.

No. 154.—$4,000 practice in town of 3,500 population; extreme western part of Ontario; only two opposition; purchaser can have practice alone, or with chattels, or with property. One of the most lucrative openings on my list.

No 155.—$2,000 practice and brick home in Prince Edward County; unopposed, fine territory; price, $2,200; easy payment terms.

No. 156.—Is an inviting offer for a Methodist; within thirteen miles of Toronto; $500 cash secures the property and practice at a price that is right. Balance of $1,250 can be paid as desired.

No. 157.—$2,000 practice; unopposed; in Western Canada. Doctor wants to leave at once to take salaried hospital position. Price $200 for chattels and practice.

AND OVER 20 OTHERS. SEND FOR FULL LIST.

☞Letters must be direct from medical practitioners interested, and must enclose stamp for reply, otherwise they will remain unnoticed. Address—

DR. W. E. HAMILL,

Room 11, Janes Building, - N. E. Corner King and Yonge Sts., TORONTO.

water." A soft pill mass protected indefinitely from atmospheric conditions is certainly the perfection of pill making. There is evidence to be found every day by suspending a Warner pill on a mosquito netting in water from 98° to 100° and watching it dissolve. This test is conclusive as the conditions most nearly approach the natural conditions present in pill medication. It will show the superior solubility of the Warner product over pills made by any other process. It will guide the pharmacist in his specifications.—*Monthly Retrospect of Medicine.*

MANGANIMOLYBDATES.—When a solution of acid molybdate of ammonium is boiled with hydrated peroxide of manganese a ruby-red liquid is formed. According to Péchard, this is a manganimolybdate of ammonium. To prepare the salts in definite crystalline form, the author first transforms the acid ammonium molybdate into a double molybdate of ammonium and manganese by mixing hot solutions of molybdate and of a manganous salt. The yellow precipitate of the double salt thus obtained is suspended in water and permanganate of potassium gradually added to it, when the violate color of the permanganate is changed to the ruby-red of the mangani-molybdate. Ammonium *mangani-molybdate*—$3(NH_4)_2O.MnO_2\ 12MoO_3\ 5H_2O$, forms fine red stable crystals, slightly soluble in water; the potassium salt forms small crystals not so deep in color as the preceding salt, and almost insoluble in water; the sodium salt forms large

blood-red crystals, $3Na_2O.MnO_2.12MoO_3.13H_2O$, mangani-molybdic acid is obtained in the free state by treating the barium salt with an equivalent of normal sulphuric acid; by evaporating the red liquid so obtained *in vacuo* a blackish mass with a vitreous fracture showing no signs of crystallisation is obtained. The formula for this is $MnO_2.12MoO_3.10H_2O$.—*Comptes rendus*, CXXV., 31.

THE AMERICAN PEDIATRIC SOCIETY is making a collective investigation of Infantile Scurvy as occurring in North America, and earnestly requests the co-operation of physicians, through their sending of reports of cases, whether these have already been published or not. No case will be used in such a way as to interfere with its subsequent publication by the observer. Blanks containing questions to be filled out will be furnished on application to any one of the committee. A final printed report of the investigation will be sent to those furnishing cases. Signed, J. P. Crozier Griffith, M.D., Chairman, 123 S. 18th St. Phila.; William D. Booker, M.D., 853 Park Ave., Baltimore; Charles G. Jennings, M.D., 457 Jefferson Ave., Detroit; Augustus Caille, M.D., 753 Madison Ave., New York City; J. Lovett Morse, M.D., 317 Marlboro St., Boston, Committee.

THE Dominion Medical Monthly
... AND ...
Ontario • Medical • Journal

Vol. VIII. TORONTO, OCTOBER, 1897. No. 4

ORIGINAL ARTICLES.

No paper published or to be published elsewhere as original, will be accepted in this department.

SOME REMARKS REGARDING CLIMATE.*

By Dr. AMES, Denver, Col.

Hundreds of thousands of dollars are spent each year by individuals who, suffering from some form of ill-health, leave comfortable homes and pleasant environments with the hope that, what we are accustomed to call, "a change of climate," will restore them to a condition of bodily vigor,

The question of climatic therapeutics, then, is fraught with much importance both to physician and patient, and may be amplified to any extent; but as pulmonary tuberculosis is the most frequent cause for migration, what will be written will have especial reference to that type of trouble.

It is pretty generally conceded—I have never heard it disputed—that certain localities are better than others for producing that feeling of comfort and well-being, without which one can hardly imagine a process of cure to be induced or disease retarded.

In these days of rapid travel, those of independent means can afford to experiment and flit from place to place until they become suited; but, unfortunately, a large percentage must make a selection of a locality, take up some mode of livelihood which debars further travelling, and remain there the year around, or at any rate during the winter months.

Almost every province in the Dominion, almost every state in the United States, contains some spot more notable than another for its health-giving proclivities. Kamloops in British Columbia, Calgary and Banff in the North-West Territories, Muskoka, the Gatineau Valley, and other places farther east.

*Read at the regular meeting of the Lambton County Medical Association.

The greater number of Canadians, however, choose some point in the United States, so I propose analyzing the merits of representative towns, based upon the reports received at the different signal service offices.

It is a well-known axiom that no one can occupy two places at the same time, and it is this impossibility, I imagine, which has given rise to conflicting evidence regarding health resorts. So we will discard the ideas of the casual visitor, the memory of the oldest inhabitant, hallowed though it be, equally with the ardent report of the enthusiast who may have real estate to sell, and trust to the statistics of the weather bureau, no matter how they may shatter our preconceived impressions.

That cures are performed, that years are added, can be proved by the testimony of those who having fought a good fight at home, yet continually lost ground, have, after migrating, steadily advanced and regained the fallen standard or silenced the enemy's batteries.

All do not do this, nor nearly all. No doubt every eastern-bound train from the south and west contains some pilgrim returning to the land of his father's, one travelling in the Pullman, another in the baggage-car.

I know the register at the Denver Health Office for 1896 contains the record of 281 who died in Denver from pulmonary tuberculosis contracted *outside* of Colorado, and what is very significent but not apropos in this place, associated with them are forty-five who died of the same disorder contracted *in* this State

You need not wonder, nor is it any reproach to the climate, that so many deaths occur. Vital hygienic principles can be murdered in any latitude. Our ancestors had to leave *Paradise* for their health, because they would not conform to the prescribed rules of diet.

Wealth is not synonymous with obedience nor intelligence, and it seems as if those who have to scurry around in ventilated garments and live in ventilated houses have the best chance.

A cruel lack of discrimination is often manifested by friends, charitable associations, and alas! also physicians, in the class of cases shipped to be cured, and as a result every once in a while a case is chronicled of an emaciated wreck being taken from the Union Depot to the county hospital from which he never emerges alive.

Then there is a class who having exhausted their bodily powers in a futile attempt to overcome their malady, come west as a *dernier* resort, with the ambition lowered by the intoxication of disease, strength almost nil and obliged to practice economy. Under these circumstances many seek boarding-houses in the heart of the city where the atmosphere is never free from dust, trusting to climate alone to become reinvigorated, making scarcely an effort to combat the disease or increase their power of resistance by cultivating their inherent force, small though it be.

Unfortunately there is no way of determining by registered statistics the number of those who receive benefit. As in many other instances we have direct knowledge of the evil, but but scant knowledge of the good. "There were ten lepers that were cleansed, but where are the nine?"

The Colorado *Medical Monthly* for January, '97, contains an obituary of the late Dr. Reed, of Colorado Springs, from which I quote the following:—

'Pulmonary trouble drove him to Colorado Springs in July, 1874. It took six weeks to come and he was brought all the way upon a mattress. Despite his physical infirmities, he made for himself a place of local but national prominence. He not only worked, but he did 'heaps of good.'"

Dr. Reed died in Dec., '96, twenty-two and one-half years after coming west. The obituary was written by Dr. S. A. Fisk, Dean and Professor of the

medical department of the University of Denver. I heard Dr. Fisk say, regarding himself, to a patient who consulted him for pulmonary trouble: "Ten years ago I came here three times as bad as you." Dr. Chas. Denison is well known; Dr. Denison made a similar remark, dating it back twenty years.

The manager of a surgical instrument company told me he was enjoying fair health, but he has had repeated hæmorrhages for ten years.

A fellow graduate with myself brought his wife to this State twelve years ago, after having had forty hæmorrhages in the east. She has had none since within a month of her arrival, but during that time seven of her immediate relatives at home have died of tuberculosis.

Dr. Macklin, now in Nankin, China, who has circumnavigated the globe, said to me: "I know of no better climate in the world than New Mexico. My brother-in-law lives there; he has had tuberculosis for the last twenty years."

A patient whom I, when practising in Sarnia, sent west, whose case I had watched for several years and who was as certainly going down hill as the waters in the St. Clair, is well and strong. Such evidence as the above is as startling as it is incontrovertible, and could be prolonged to any extent, for it is a notorious fact that biographical sketches of local celebrities almost invariably contain the statement that they came here for their health—last year, or five or ten years ago, or with the pioneers in '59. Microscopical and other investigations, rendering the above of greater scientific value, might be adduced did time permit.

I hold no brief for the State of Colorado; I have no special predilection for Denver from a health standpoint; my lot is cast here for reasons I need not enunciate, and my testimonies are local only because accessible. What is offered in favor of climatic therapeutics is common to a vast territory, and the conditions which obtain here are the conditions which obtain through twenty degrees of latitude from El Paso, Texas, to Calgary, Alberta, along the eastern slope of the Rocky Mountains, with slight variations, principally in the matter of temperature, although no greater mistake can be made than in thinking that isothermal lines correspond with lines of latitude.

In an article on Climatology, in Hare's system of Therapeutics, written by Dr. Solly, of Colorado Springs, the percentage of cures given for Colorado is the highest I have seen quoted for any place, taken from a large number of cases by three private practitioners of high, and deservedly so, local repute. I would be very slow to hint at any error, but 202 cases is a very large number for one man to keep under his own control, and watch for a sufficiently long time to be sure of results. But the eastern part of the United States demands attention also.

Dr. Graham's article in the *Canadian Practitioner* for July, 1895 gives the results of residence at Dr. Trudeau's Sanatorium at Saranac Lake, roughly speaking as 25 per cent. cured; 25 per cent. much benefited; 25 per cent. slightly benefited; 25 per cent. unimproved.

(These are much higher percentages than those collected up to 1888, and it would be interesting to know if it is due to any change in methods of treatment.)

I have not at hand the recent results of the Sanatorium at Asheville, conducted by Dr. Karl Von Ruck, but up to 1890, the per cent. of cures was 11½, based upon 515 cases.

You will recall Von Ruck as one given over to testing the merits of Antiphthisine, and his *recent* results will be awaited with anxiety.

Effects somewhat similar, coming from regions so remote whose climatic conditions are not parallel, are rather confusing.

One writer says, "there is no ideal climate"; another says, "the trance-dream of the invalid is a climate of uniform temperature, and in search of it he examines the claims of all the continents and zones of the earth to find that it nowhere exists."

Sir W. Temple "thought that was the best climate where one could be abroad in the air with pleasure, or at least inconvenience, the most days of the year, and the most hours of the day." Egypt, Algiers, Switzerland, Mentone, all have their worshippers; but, coming back to statistics, we find as good results can be secured upon the North American continent as across the Atlantic, and that the counterpart of any clime can be found at home.

Mexico—old Mexico, I mean—offers much of interest and great diversification. Broadly speaking, its zones of heat are governed by altitude; lower than 4,000 feet being a hot zone, from 4,000 to 7,000 temperate, and over that a cold zone.

We find upon analysis that the chief factors of that composite thing we call climate are: Temperature, cloudiness, humidity, wind, altitude and electricity. Other things to be considered are malaria character of the soil, density of population, fog, number of days of rainfall, etc.

Temperature can hardly be considered apart from humidity. For that reason the better class of observations are made both with the wet bulb thermometer, and the ordinary one, the latter one giving the air temperature, the former giving the temperature of evaporation, and being approximately that experienced by the human body, especially in warm weather. For instance, to-day's paper gives the following report for yesterday, April 25th:

	Dry Bulb.	Wet Bulb.	State of Weather.
Detroit.....	56	54	Partly cloudy.
Denver.....	60	48	Clear.

The dry air in *hot* weather decreases the apparent heat because perspiration dries up so rapidly.

"Dry air in *cold* weather render extreme cold more endurable because there is not so great evaporation, and it can be limited by clothing; but when the air is humid, the loss of heat is greater by conduction; so that damp air without frosts is more disagreeable than dry frosty atmosphere," and I have been told by those who have wintered in Florida and California, that this comparison is quite noticeable there.

Speaking along this line Captain Glassford, addres-ing an Irrigation Congress in Albuquesque, in September, '95, said, "In truth the records of temperature, especially for arid America, are but a statement of the way heat affects the metallic feelings of a column of mercury confined in a glass tube; they have nothing to do with our men or our stock. They will measure the influence on inorganic matter such as the expansion of iron rails, but as a measure of effect on the feelings of human beings they vary as greatly as the active functions of the animate differ from the inanimate.

"The scope of country within the arid region, which enjoys the summer comforts of the climate of the great lakes and Maine coast, but with the surety of sunshine which they can never enjoy, includes Washington, Oregon, Nevada, Idaho, Montana, Wyoming, Colorado, Utah (except about its Salt Lake), half of Arizona and New Mexico.

"Not only is this true, but there is an area covering portions of the settled sections of Nevada, Idaho, Wyoming, Colorado and New Mexico which has a

sensible temperature lower than any of the summer resorts in Maine, or at the Straits of Mackinac, or Sault Ste. Marie.

"In preparing this report it was not the cool summits or cool slopes of the mountains that were considered, but such cities as Santa Fe, Denver, Cheyenne, Boise City, Minnemucca, etc."

This being so for the summer, you will observe when we speak of the large degree of sunshine and small precipitation during the months from November to March, how attractive that stretch of country appears during the whole year.

"The special record of extreme heat in the United States is in California. There on one day in June, on two days in July, and on two days in August, maximum ordinary thermometer register was 122 in the shade, but at these times the sensible temperature, or that of evaporation, was but 77 and 74.

It should be noted that this is the extreme heat at a place where Death is the name of the valley, below the sea level, and Furnace the name of the point of observation."

You, as physicians, will remember that in the hot-air treatment for rheumatism and chronic joint disease, 200° and 300° can be be borne, but moist heat at 115° and 120° is unbearable. Temperature is also regarded as to its equability or variability.

"Many physicians who had hitherto recommended equable climates for the classes of consumption which can be benefited, have lately learned that variability is often to be preferred, as this quality pertains particularly to stimulating, dry, cool, and elevated climates, while equability always accompanies enervating warmth, coupled with injurious dampness of atmosphere." (Denison.)

Let me add that where there is a high daily range there is apt to be less cloudiness, and the higher temperature is during the hours the invalid ought to be out of doors.

Cloudiness is a fair index to atmospheric humidity, and, from an invalid's point of view, undesirable. Of course the less cloudiness, the more sunshine, and direct sunlight is beneficial in another way. Dr. J. J. Mackenzie, before the Canadian Institute not long since said, "The bacillus of tuberculosis when exposed to sunlight in the dry state is killed as quickly as any other forms, and even before it is killed, its virulence is materially decreased." Hence in a sunny district the less likehood of infection and re-infection.

Humidity. With saturation at 100 per cent. there is seldom less than 25 per cent. of humidity; below 55 per cent is very dry; between 55 per cent. and 75 per cent. moderate; between 75 per cent. and 85 per cent. moderately moist, and over 85 per cent extremely so.

Humidity is not synonymous then with rainfall, as the latter depends upon cold currrents condensing the vapor and causing precipitation, hence you may have even in a warm climate with a high relative humidity, a small rainfall, such as San Diego, California, which, with a mean annual precipitation of ten inches and a mean annual temperature of 60°, has the same relative humidity as Jacksonville, Florida, with a precipitation of 53 inches and a mean annual temperature of 69½°, and nearly the same as Hort Huron, Michigan, which has a mean precipitation of 32½ inches and a mean animal temperature of 46½°.

Wind. High winds amounting to gales (forty miles an hour) mean dust-storms in arid regions, and are undesirable if for no other reason than rendering pedestrianism fatiguing. They are frequently the precursors of cold damp storms.

Pike's Peak Station is the windiest in the United States, the wind blowing

there at an average of twenty-five miles an hour, typical of that "true Americanism" which is supposed to be more patriotic than the "*ism*" of any other nation, and which at intervals threatens to blow the lid clean off.

Altitude is a peculiar thing.

In the mind of the average laymen it may account for any condition or circumstance no matter how opposite. Sleeplessness and torpor, emaciation and obesity, a gross and a delicate appetite, are alike ascribed to "Awltitude." When we first came here our domestic economy was shaken to its base, and our very existence imperilled by my wife trying the "high climate recipes" advised by her well-meaning but mistaken friends.

In the *Denver Republican* for March 24, '97, appeared a copy of a letter from a prisoner in the Colorado Springs gaol to the Board of Pardons, praying for release because the altitude was accountable for her kleptomania. This you see carries out the idea that "the up-to-date woman is up to anything."

Scientifically considered, though the amount of air-pressure at sea-level is fifteen pounds to the square inch, and as we ascend the pressure decreases at the rate of one pound for every 2,000 feet This is supposed to be advantageous within moderate limits (4,000 to 8,000 feet) as the atmosphere becomes rarified, respiration is quickened, and disused air-vesicles are encouraged to expand.

Beyond that height, however, the heart's action may be embarrassed, giddiness occur and weakened arterioles give way. It is no uncommon thing to witness nose-bleed both in man and beast in making the ascent of the higher peaks, such as Pike, Lincoln, etc., at 14,000 feet.

Electricity. It has been demonstrated that at altitudes under a clear sky, electricity in the air is increased. This is supposed to contribute to the exhilaration experienced at medium elevations. Thunderstorms are more frequent between 3,500 and 6,500 feet than at greater or lesser heights. Here we have not noticed anything so erratic as the lightning that struck the church-spire at Wallaceburg during the past winter, but the number of thunder storms per annum is greater. So much for the climatic ingredients.

Now in the absence of reliable statistics as to the number of people benefited or cured, which can only be approximately determined even in the most methodical sanatoria, the basis of formulating deductions must be largely what a Toronto alderman called "the voice of the vox populi." That voice proclaims personal comfort, a feeling of vigor, absence of languor and enervation, and "being able to spend out-of-doors with pleasure, or at least without inconvenience, the most hours of the day and the most days of the year," to be *recommendations* of the highest value. That voice proclaims as *pernicious*, a high percentage of humidity, precipitated or otherwise, a high percentage of heat, particularly damp heat; but worse than all, a high percentage of damp cold.

Notwithstanding the idea that is said to prevail in the minds of the physicians at Saranac and Falkenstein, viz., that "the weather has very little effect upon those who constantly breathe fresh air," I know positively that innumerable patients outside of sanatorio cannot be induced to take exercise without the seductive influence of a clear sky and a sunshiny day.

Information received from the Director of the Meteorological Service, Toronto, together with a search through various tomes in the public library here, enables me to append the following table from which one can form a good opinion of the class of weather existing in the neighborhood of each station. The number of fogs and number of days of rain-fall are omitted for brevity's sake and as not affecting the general conclusions. The invalid is best satisfied with the fewest number.

SUMMARY OF STATISTICS FOR THE MONTHS OF NOV., DEC., JAN., FEB., MAR.

—	Elevation in feet above sea level	Mean Annual wind movement in miles per hour.	Mean Annual precipitation in Rain and Melted Snow	Mean Annual Temperature	Percentage of Cloudiness.	Mean annual relative Humidity*
Gravenhurst....	770	6.6	35.54	41.0	54	N-O
Saranac Lake...	1200 (?)	not obtainable	('94) 34.71	For '94 42.5 } max. 91 min. 31	N-O	N-O
Atlanta.....	1131	8.94	42.1	61.0	49	69
Savannah.....	98	7.62	49.82	66.6	49	70
Jacksonville....	43	7.18	48.76	69.5	54	74
Key West.....	22	9.76	34.37	76.4	48	74
Kamloops.....	1200	not obtainable	11.55	46.7	59	63.6
Olympia.....	52	3.75	51.4	49 8	63	78
Spokane.....	1930	5 44	17.97	47.7	62	69
Los Angeles....	330	3.64	14.75	62.0	37	66
San Diego.....	93	4.82	8.15	60.5	38	69
Ywma.....	141	6.76	3.3	72.0	20	46
Calgary.....	3389	not obtainable	12.63	37.2	47	63.1
Salt Lake City..	4345	5.54	14.6	50 8	44	44
Santa Fè.....	7059	7.28	13.9	49.0	37	45
El Paso.....	3796	8.56	6.23	63.6	30	47
Port Huron.....	639	11.48	32.5	46.3	54	79
Denver.....	5287	7.42	13.87	49.8	44	53

*Not specially for above years but taken from Denison's Charts and Toronto Observatory.

SUMMARY OF STATISTICS FOR 1890-94

—	Coud	Precipitation	Relative humidity	Temperature
Denver (Colo.).....	41%	3 47 inches	52	33.9
Los Angeles (Cal)...	34	13.3	69	55.8
Pensacola (Fla.).....	43	16.25	80	56.6
Port Huron (Mich.)...	65	11.15	78	29.1

Judged, then, by the invalid's standard, the Adriondacks display no advantage over Muskoka, except the Sanatorium, and that will soon disappear; for summer, almost any part but the extreme south is pleasant; for winter, Georgia, Florida, and parts of California with their semi-tropical climate and luxuriant herbage must be delightful spots for those who wish rest and freedom from low temperature, although one must remember that warm, moist air means rank growth and decaying vegetable matter.

But for *permanent* residence for the relief and cure of tuberculosis and asthmatic affections, preponderance of evidence favors a residence in some part of that vast mileage extending along the eastern slope of the Rocky Mountains, where altitude, dryness and sunshine exist in a superlative degree and beckon to and encourage the systemic impulses which are dormant, as giving the greatest promise.

From my front door I can see, almost any time, Pike's Peak, seventy-five miles distant, and a five minutes' walk will take me to the top of a plateau where the whole horizon is visible. Looking over the city, Pike's Peak at the south seventy-five miles, and Long's Peak, say fifty miles, at the north-west, are recognizable points ; so if clearness of atmosphere is a guarantee of its purity, we breathe a pure air *here*, let others breathe what they may.

"THE RELATIONSHIP OF THE MEDICAL MAN TO THE STATE."

By J. R. HAMILTON, M.D., Port Dover.

In the years that are past, I, like other members of our profession, have lent my humble pen to give short papers on cases in practice, and the anomalies of medical practice incident to all medical men Therefore, I hope I may be pardoned in this instance for digressing from the beaten path, and say something in reference to the duties we are called upon by force of usage to administer to the commonwealth ; duties often of a harsh and extremely unjust nature, and none the less onerous because too freely given ; duties which we have in most instances, through our conservative habits and a heredity of customs of our ancestors, brought on ourselves ; and our great carelessness has, I fear, rendered our case hopeless from a business aspect.

To begin with, the State very justly demands that every medical man in this Province shall spend four or five years in special medical education, a term quite long enough to prepare any man of ordinary intelligence who has had the requisite general training, to assume the duties of physician, surgeon and accoucheur ; a professional course equal to, and perhaps more expensive to his parents or guardians than any other of the learned professions. The curriculum of studies is very similar to that of the Mother Country, and the time devoted to study and clinical work much the same, so that as a colony we stand equal and in some cases superior, to many other provinces attached to the British Empire. Having our status assured, why, I ask, should we be ordered to do such an enormous amount of work for the State gratis, when the men of other professions have no such burdens placed upon them ? Why should a class of men, ninety per cent. of whom are poor, be asked to enrich and further by their technical knowledge, which they have dearly purchased, the interests and health of the people ?

As an example, a new hospital is to be erected in a provincial town, and when a site for the same is selected, the wealthy lawyer, living in a mansion and faring sumptuously every day, is paid for drawing the title deeds and getting a proper conveyance of the property to the hospital authorities. The architect is paid in full for making plans and specifications ; the contractor is asked for no rebate, and the plumber expects and gets his full fee, and well

may we ask, why should they not? All of this is only just and right because the institution is to be for the benefit of the State. The patients placed there will be, in most instances, made to pay large fees for their advantages: all will be asked to pay something; the municipality for whom they have toiled paying for the indigent ones, when in due course the building is erected. How do the hospital authorities purpose having the great and important factor in its function provided, and without which it could not exist a day, viz., the medical and surgical attendance? Why, the poor unfortunate medical men of the vicinity are commanded, and must attend it through the course of its existence so many hours per diem or week for nothing, and, if the new edifice should be still deficient in surgical instruments, he will also be expected to furnish them gratis. In nearly every instance the man who is meekly submitting to this tyranny can ill afford it, and is already doing far more charitable work than falls to the lot of any member of the hospital board of governors.

It will be claimed, I dare say, by the State that it is honorable to be on the medical staff. This I grant; but it is also honorable to be a judge or a bishop, but the honor in the latter case brings a large salary and a respectable retiring allowance. While such is not the case with the hospital surgeon, the governors in general treat him as a servant and not as a gentleman doing work gratuitously for what is vaguely called "charity's sake." I will cite an instance by way of example, in support of this, which happened only a short time ago in England. One of the governors of a London hospital (a noble lord) proposed a motion, which I have no doubt was duly seconded, in which he proposed to make it imperative on the medical staff to be in their places from 6 to 9 p.m. to enable out patients, who could not leave their daily work (many of whom, I dare say, were quite able to pay), to get their medical advice and medicines free. Justice, however, prevailed and the motion did not carry.

One of the strange anomalies of the profession is the incongruous position in which the young student is placed when he listens to the commencement exercises of his university. The professor who reads the inaugural address never fails to ring in the old expression that this calling the young man has chosen is to be one of philanthropy, and that sordid wealth must never be so much as thought of. Doubtless the parent or guardian of the young man has difficulty in reconciling this noble sentiment with the stern reality that the same professor takes from the young man the full fee for tuition, and also that the expense is large in order to get into this work of philanthropy. These platitudes, no doubt, had their origin in olden days when the healing art was conducted largely by the priesthood, who had their fees from another source—tithes which would make a modern surgeon happy, although assuming responsibilities now unknown to the priesthood. These platitudes should be relegated to where they belong, because there is nothing just or fair about them. A class of men who are responsible to all classes, good or bad, for their smallest mistakes, who carry the cares and anxieties of whole households in their brain, who are cut off largely in the prime of life owing to their fearfully irregular mode of life, in the nightly service of the public, have surely a right to be rewarded for all their work, not fifty per cent of it.

Another function we are supposed to perform gratuitously in nearly every municipality in the country is that of the proper duties of health officers, not merely the duties of reporting all deaths and births gratis (although the clerks of municipalities get a fee), but we must give the State our best advice at all times as to the proper methods of preventing the spread of contagious or infectious diseases. Before this branch of science was taken

hold of by the medical profession the loss of life to the State was simply appalling, while the pecuniary loss was entirely beyond the grasp of the ablest financier. The technical knowledge of the profession has contribnted more to the progress of the commonwealth than the ablest of statesmen can express. The virtual suppression of smallpox through compulsory vaccination is no longer a theory, and where such a rule is enforced the pitted face is no longer to be noticed on the streets, and the poor of the parishes are not so often deprived of their bread-winners; and here I might state that the enterprise shown by the Monarch of Spain, at the dawning of the present century, in fitting out a fleet having for its object the sole purpose of vaccinating the subjects in all his colonies, was a more marked tribute to the great value of the scientific investigations of Edward Jenner, than is the present action of the highly civilized people of his native land in relegating his monument to an obscure spot on the Serpentine, to make room on Trafalgar Square for that of some general, whose bravery was endorsed by the blood of thousands of poor soldiers who obediently fell at his command.

The value to the State at the present era of medical investigation, in the way of bacteriological work, can scarcely be estimated in dollars and cents, and that too by men who, although learned in their special work, receive next to nothing as a salary, and there is no more provision made for his declining years than there is for the poor artisan who helps to mould the colossal fortune of some monopolist. The legal profession have a thousand different comfortable positions already made for them when they show their fitness to occupy them. The slick rotund lawyer becomes a judge, his legal partner gets the Crown business for the surrounding counties, and his neighboring lawyer becomes a Master in Chancery, or steps into one of the many offices provided by the law of the land, which can be filled by no man other than a disciple of Blackstone. And here I might also remark that the clergyman who, in the majority of cases, receives a more comfortable and more definite annual salary than the physician at the present day, has a retiring allowance provided for him in all well organized synods, so that he need not dread that "Age and want, O ill matched pair."

The country surgeon is the same through his life of drudgery, a slave to an ungrateful people, until the time a merciful Providence calls him home to a reward he never reaped in this world. Well may we ask, Have we no remedy for this incongruity which we have largely brought on ourselves? Would it not be more manly at the beginning to educate the young man, not in the platitudes I have referred to so much as to give him to understand that every time he hires himself out to attend questionable insurance companies, railway and steamboat corporations, he is doing disreputable work in the interests of the dignity of his profession as well as encouraging tyrants who will delight in making him a slave. In doing so he is only giving assistance to the great heads of these corporations to make money out of his dearly bought knowledge by making much more advantageous insurance rates with their employees, as this "free medical attendance" is the principal attraction to their clubs. Although the employee generally gets a *cheap doctor*, yet we cannot deny the fact that many good men are doing this kind of work in our Provinces in self-defence at the present time. Yet they all know perfectly well in doing so that the whole system is entirely wrong and unfair to themselves, as well as unjust to their fellow-practitioners. And in this connection I am pleased to see that the neighboring Province of Quebec has had the courage of its convictions in this question, and passed a resolution at the last meeting of its council making it a matter of membership or not. This move will cause surprise in the class of pseudo-philanthro-

pists who have heretofore been able to draw good salaries from a gullible public and an easily led medical profession. Our own province has only talked around this question so far, and the lodges are feeling quite secure in the assurance that the profession dare not refuse them. The result, no doubt, will be a demand for a lower yearly wage.

It is either right to collect fees for medical attendance on all people, or it is not, and the sooner this is recognized by the profession in unison the better for all concerned. At the present time the State, as far as this Province is concerned, expects you to do all its work gratis in order that the State may have funds enough to pay good retiring allowances to judges and other officers of the State who never in the whole course of their career did an hour's work for it gratis. I would have it very distinctly understood that I wish the medical man to bestow that charity which is expected of every citizen, and which all will admit, after a few years' practice, is to be found every day enforced upon him in a goodly measure without ever thinking of doing the State duties gratis, much less work for ten cents in the dollar for some corporation, when no charity should be expected from us.

The giving of evidence before the minor courts of this country in Crown cases, and paying our own mileage thereto gratis is nothing short of an outrage. The lawyers are allowed their fees by the Crown for work done in the interest and welfare of the State in such cases, as they have a right to be; but an exception is made in the case of the medical witness who has heretofore been supine enough to allow these and other indignities to pass unheeded.

I was summoned a few years ago to a criminal case at a police court nearly forty miles from my residence, and after giving evidence I asked the Crown Attorney for my fee and mileage, when I was told that we not only received no fee but were compelled to pay our mileage as well The only method available at present of extracting the mileage is to refuse to go and allow a constable with a warrant to take you as a prisoner, your time being of no value when compared with the feed lawyer who has his bill passed at the sessions without a murmur, although the medical evidence may have been far more important to the State in the case in question.

The only special legislation I can think of at present enacted in our favor was placed on the statutes by the ex-Attorney-General of Ontario, restricting the time for entering suits for alleged malpractice, to one year instead of six, as formerly, when the delinquent sometimes attempted to offset his bill by this means, and I have no doubt often succeeded. The question of our State relationship might be continued to greater length had we time and space, but I hope the profession will yet give our readers, and the public in general, to clearly understand that we have been doing too much for them in the past, that they have been too exacting from a long suffering class, that they have too lightly regarded in the past the enormous importance of the profession of medicine to every class of people in the general community. It is high time this should cease and the public more deeply consider the many obligations that are justly due to those who make a study of life and death, at a great risk to their own lives with most pronounced beneficial results in mitigating the furor of epidemics and prolonging human life.

THE ÆTIOLOGY AND TREATMENT OF ASTHMA.

By J. E. HETT, M.B.

MR. PRESIDENT AND GENTLEMEN,—The object of bringing this paper before you is because: 1. It is a common disease. 2. Its ætiology is as a rule not understood. 3. The ordinary treatment usually baffles the physician. 4. Many cases are amenable to treatment when the causes are removed. 5. To create a discussion.

In reviewing the history of the writings concerning Asthma, we find that it is only within comparatively recent years that the disease is at all understood. The theory of bronchial spasm which held its place so many years has been exploded, yet many practitioners have not yet ascended the stairway of knowledge in this respect and still cling to the old theory, and are satisfied to give now and then a little relief to this distressing disease or allow their patients to drift from one charlatan to another.

Since death does not occur during an attack of asthma, and asthmatic patients are, as a rule, long-lived, it naturally follows that not so much interest in this disease is shown by the profession; but the distress and discomfort of the patient is extremely piteous, and we should endeavor to make our patients comfortable as well as to relieve them from pain.

Osler says, "Asthma is a neurotic affection, characterized by hyperæmia and turgescence of the mucosa of the smaller bronchial tubes and a peculiar exudate of mucin. The attacks may be due to direct irritation of the bronchial mucosa, or may be induced reflexly, by irritation of the bronchial mucosa, and indirectly, too, by reflex influences, from stomach, intestines or genital organs."

The hyperæmia and turgescence is not caused by a bronchial spasm but by a vasomotor paresis of the blood-vessels supplying the bronchial mucous membrane. In the commencement of an attack there is a sudden letting up of the nervous control caused by some interference of the junction of the vaso-constrictor nerves. The vaso-dilator nerves then have everything their own way and the fine blood-vessels then become very much distended. The engorgement is so great as to interfere with the passage of the air through the bronchial tubes. This paralytic condition remains for a few hours. During this time we have a dry condition of the mucous membrane. Then follows an escape of serum and sero-mucus which relieves the engorged vessels. Gradually the blood-vessels regain their normal calibre.

Ætiology.—Asthmatic attacks are dependent upon two or more of the following conditions: 1. General neurotic conditions. 2. Direct irritation of the bronchial mucous membrane. 3. Some peripheral irritative locality. 4. Abnormal condition of respiratory centre. 5. Reflex irritation. 6. Internal and external causes.

The causes are: 1. Mechanical. 2. Chemical. 3. Reflex.

All writers agree that asthma is dependent upon a neurotic condition. The affection runs in families, especially those with irritable and unstable nervous systems. Men are more frequently affected than women. The disease often begins in childhood and sometimes lasts till old age.

Amongst mechanical causes we have goitre, the so-called thymic asthma, aneurism, trauma, foreign bodies, dusts (external influences) such as pollen of flowers, too dry atmosphere, odors of cats, horses and certain species of wild

animals, certain flowers, drugs and a vast variety of different mechanical irritants in the air.

Then we have cardiac asthma, due to valvular disease. This is, however, not true asthma. Under the head of chemical or toxic causes we have renal, gastric, saturnine, mercurial and malarial asthma. These are also cases of dyspnœa, and not true asthma. Under the reflex causes we have gastric, cardiac, sexual, intestinal, traumatic and nasal asthmas.

Very little attention has been given to disorders of the sexual organs as giving rise to asthma. Two of my cases I traced to onanism. These cases occurred in married men who obliged their better halves so very much from bearing children. After this habit was corrected both cases got completely well. These cases suggest that phimosis and self-abuse may also be factors in producing asthma.

Much attention has of late years been given to the study of diseases of the nose and throat as giving rise to asthma. The statistics of writers on the frequency differs very much. Thus we find that, according to Schuniglow, asthma is of nasal origin in 30 per cent. Schech reports 64 per cent., whilst Bosworth makes the extraordinary statement that all cases are dependent upon a diseased condition of the upper respiratory apparatus. In reviewing the cases which came under my own observation, I found that 25 per cent. of asthmatics were due to a diseased condition of the upper respiratory apparatus.

Why such a large number of cases are dependent upon intra-nasal disease is easily understood when we consider that the most delicate part of the respiratory apparatus is in the nose. There we find a wonderful chamber which is supplied by very many blood-vessels, forming a most intricate network of vascular tissue In this chamber a pint of fluid is exuded in the course of twenty-four hours, which renders the inhaled atmosphere suitable for its purpose in the lungs.

The same system of sympathetic nerves which supplies the nasal chambers supplies also the bronchi. Hence a disturbance in the nerves of the nose is very liable to set up a reflex irritation which disturbs the nerves of the bronchi. This is exactly what takes place.

We find that the diseased conditions may be hypertrophic rhynitis, deflected septum, polypi, tumors, adenoids, elongated uvula, diseases of the eshmoid, a hyperæsthetic condition of the mucous membrane generally or in small spots, naso-pharyngeal catarrh and growths in the larynx. In many cases we have various combinations of the above conditions.

In some instances no physical causes whatever can be discovered. We must then look for psychical disturbances, and, indeed, many cases can be traced in which some psychological condition is the cause, whilst in others it may play a very important part in keeping up the sources of irritation. These are hysterical asthmas.

Asthma is a neurasthenic disease, and one should bear in mind that it is produced by an abnormal disuse of nerve substance in contra-distinction to an abnormal over-excitation of nerve substance which takes place in hysteria. The disuse of nerve substance means not only nerve tissue, but the brain and medulla as well. An abnormal disuse may affect the whole system generally or it may effect only certain portions of the system. Mental over-work, worry and fear affect the nervous system generally.

We have no right to class many forms of neurasthenia as being imaginary, but we should look towards some psychical cause which sets up the disturb-

ance. Lesions occur in the mind, and they should be sought for as well as lesions in the physical body.

We should look upon all physiological processes in three acts, namely, action, perception and reaction. Between action and reaction there stands the master—the regulator of the whole complicated mass of nervous tissue—namely, the Will. The well-known sentence, "The spirit is willing but the flesh is weak" should be completely changed about in neurasthenia. What the flesh requires is a very strong and positive will, even under great discouragements.

As soon as an action is transmitted into the central nervous system, it is then in control of the will, and the reaction which follows will be in accordance to the nature of the will. We find, moreover, that if the will is entirely asleep no reaction follows; if partially asleep then an automatic action follows If awake, then the reaction is under the control, and will manifest itself according to the nature, of the will.

In asthma we find that there is an irritation in the respiratory centre. By this we mean not necessarily a lesion in the respiratory centre, but it is irritated by some peripheral sensation; as, for instance, the smelling of ammonia causes sneezing. There we find that the respiratory centre is perfectly normal, but it is disturbed from the transmission of an irritation carried to it through the nasal nerves. Different irritations may cause a weakness of the will, which then sends forth its messages in a perverted manner, and hence we have vasomotor disturbances and an asthmatic attack. If an irritation is kept up for a long time and disturbing messages travel through the nerves and nerve centre, some changes will inevitably follow along the whole course; consequently we may expect that in old chronic cases of asthma the disease is not cured even though the source of irritation has been removed.

Neurasthenic asthma should be differentiated from the asthma produced by hypochondriasis which is imaginary. It should on the other hand be looked upon as a very severe disease. During an attack hysteria may simulate neurasthenic asthma very closely. The distinctive features between them, however, is that the dyspnœa always disappears in sleep in hysterical cases whilst neurasthenic patients are aroused out of their sleep. Hysterical cases usually complain of a dull, tired feeling before an attack, whilst neurasthenic cases usually know of some irritative locality which they find in a disturbed condition. This is, however, in intelligent patients who take particular notice of the attacks. Neurasthenic asthma is not easily influenced by the will either of the patient or someone else, but hysterical asthma may be influenced by either the patient or the physician. Hysterical patients, as a rule, will demand a great deal of attention and pity.

The treatment of asthma is best divided into three heads: 1. The paroxysm. 2. The locality which gives rise to the reflex irritation. 3. General condition.

During the paroxysm the patient usually seeks his own position. If anything is discovered in the room which is the source of irritation, that should be removed, such as offensive odors, animals, flowers, feathers and drugs. Since about 75 per cent. of cases are due to an irritation in the nose or throat, we may expect a great deal of relief by spraying the parts with 2 per cent. cocaine solution, or applying a weak solution by a pipette or small rod if an atomizer is not at hand. Cocaine does act remarkably well in many cases. Inhalations of stramonium leaves and saltpetre act well also in many cases. Fifteen to twenty grains each of chloral and bromide of

potassium often gives marked relief. Of all internal medicines opium acts the best. It acts not in controlling the spasm, as was formerly thought, but in its general sedative action upon the nervous system, and by its sedative influence upon the circulation. It should, however, be used sparingly. A few whiffs of chloroform nearly always acts very promptly, but should never be used by the patients themselves.

Suggestion is a remedy which has hitherto received very little attention In hysterical cases it acts wonderfully. It rapidly stimulates the vasomotor nerves, and brings about an harmonious condition throughout the whole system. Hypnotism is not necessary. The suggestion is given whilst the patient is perfectly conscious. In strength of this I will cite two of my own cases.

G. B., aged 28, had asthma for about six years, occurring at different intervals. He came under my observation two years ago. After a careful examination I found no physical cause, so I concluded the case must be of psychical origin. I told him he would be well in five minutes, and asked him to take deep breaths. At first this excited cough. I suggested that the cough would cease. It did. Then I suggested that the breathing would gradually become easier, so that at the end of five minutes he would be entirely relieved. After that time he felt himself completely well. Then I gave another suggestion that he would never have another attack, and sent him off. It is now over two years and he has had no attacks of asthma since.

Miss L., aged 30, had asthma five years. After a careful examination I concluded it must be of a psychical nature. Suggested to her she would be well after five minutes, and told her to take deep breaths. Succeeded in stopping the attack. After that time the breathing was natural. The attacks returned, however, so I treated her again by suggestion. I then gave her a few tablets of saccharum lactis, and gave her the suggestion that when the attack comes on again she should take one and it would relieve her at once. This she did, and it is now about a year, and since then she has been entirely free.

The local treatment consists in eradicating the cause, and since about 75 per cent. of cases are due to some affection of the nose or throat that should be properly treated. Attention should also be paid to diet; a full meal should not be taken a short time before retiring. Supper should be very light. Anything that disagrees with the patient should be prohibited. Alcoholics should not be used. If the attack is due to onanism—self-abuse—it is needless to say that should be prohibited. Wherever the cause is, that should be removed. The general and constitutional treatment consists in keeping regular hours, in diet and in sleep. Baths are of excellent service. Tonics are often indicated. Amongst remedies the iodia of potassium has received most praise. Iron, strychnine and arsenic are indicated also in some cases. Too much medicine, however, has been given in the past, and is given at present. One remedy after the other has been most highly lauded for a time and then sinks into oblivion, from whence it is at times again resurrected, only to drop back again. It is my firm belief from many observations that a great deal of the success of the medicines has been due to the suggestion which accompanies them.

Since the causes are so many which give rise to asthma, we must look for the cause and remove it. That is the principle which should be carried out invariably. Three out of every four cases have some trouble in the upper respiratory tract, and a very large percentage of these cases recover if they

are properly treated. Since it would entail too much time in going into details upon the different treatments required in nasal cases I thought it best to dispense with that upon this occasion. The main thing in the treatment of asthma is to search for the cause, and then, having found it, eradicate it.

VAGINAL SECTION—CLINICAL REPORT.

By ERNEST HALL, Victoria, B.C.

In the August number of this Journal I briefly discussed the subject of vaginal section, endeavoring to show the limitations as well as the indications of this method. In order to illustrate the points referred to the histories of six consecutive cases are briefly given, all treated in our city hospital.

While there is no doubt of this procedure deserving a more prominent recognition than heretofore has been granted it, in the present condition of our knowledge, its jurisdiction is by no means extensive. A most judicious selection of cases is necessary if we are to get even medium results. The ease and rapidity with which a small movable cyst can be removed from the cul-de-sac of a wide pelvis with atrophied muscles, must be contrasted with the extreme difficulty and unsatisfactory results of an attempt to remove pus sacs or to loosen bowel adhesions in a nullipare with deep pelvis and compact muscular development. Between these extremes the greater proportion of our cases lie, and the most careful consideration is required before deciding upon the method of approach.

1. Mrs. S., aged 44, multipare, roomy pelvis, lax vagina and partial rupture of perineum. A movable cyst filled the cul-de-sac interfering with bowel action. This case presented every desired condition for easy vaginal section, and the facility with which a dermoid was tapped and drawn through a posterior incision, the pedicle ligated and the wound closed was not a little surprising to the assistants. Subsequent history uneventful. Time in hospital three weeks.

2. Mrs. F., aged 27. One child three years ago, complained of pain in right side, no rise of temperature, had missed one menstruation. Examination showed mass to right of uterus. Usual symptoms of extra uterine pregnancy. Posterior incision and drainage as advocated by Kelly. Recovery normal. Time in hospital eleven days.

3. Mrs. A., aged 29, two children. Retroversion with adhesions on cyst of right ovary the size of an orange. Anterior vaginal section. The adhesions were broken up with the finger passed behind the uterus, the cyst drawn forward against the opening and tapped, then drawn through and pedicle ligated. The uterus was then brought forward and stitched to the anterior vaginal wall as described in previous paper, and the wound closed. Recovery normal. Time in hospital two weeks. Examination of uterus three months afterwards showed normal position.

4. Mrs. C., aged 27, one child, one miscarriage. Retroversion with adhesions, small subperitoneal fibroid. Anterior vaginal section, adhesions severed as in previous case. The uterus was then anteverted through the incision, and the fibroid nodule enucleated and wound in uterus united with catgut. The uterus was then attached to the anterior vaginal wall as in the previous case. Recovery normal. Stay in hospital two weeks.

5. Mrs. H., aged 35, multipare. Endometritis, prolapsed and adherent ovary and ruptured perineum. The uterus was curetted and packed with iodoform gauze. The cul-de-sac opened, adhesions severed and prolapsed structures removed. Martin's operation was then done on perineum. Subsequent history normal. Time in hospital two weeks.

6. Miss ——, aged 20, nullipare, usual history of gonorrhœal sepsis. Mass to left of uterus, vaginal narrow, muscles large and firm. Posterior section, with difficulty was the enucleation of a pyosalpinx and ovarian abscess proceeded with and not without rupture of the pus tube. The structures were removed, and pedicle ligated with silk, the parts irrigated, a gauze drain inserted deep into the pelvis. The after treatment of this case gave us no little trouble. The discharge of pus was considerable, and the change of dressings impossible without chloroform. Patient left hospital in two weeks, but the wound discharged for three months.

Although the ultimate result in this case was fair, the immediate result was far from satisfactory. While a fistula discharging into the vagina may be less objectionable than upon the surface of the abdomen, such sequalæ wherever found are not apt to reflect any excess of credit. I fail to see why clean, complete work could not in this case have been done by the abdominal method, with simple easy dressing and a better result; however, this mistake need not recur.

These cases, for the most part, ran on a febrile course. The bladder irritation which one would expect to find after vaginal fixation failed to appear. Rest in bed was made compulsory after leaving the hospital for a time varying from five to twelve days. Yet we are justified in concluding that the subsequent confinement is lessened at least one week by the use of this method.

Reports of Societies.

THE CANADIAN MEDICAL ASSOCIATION.

The work of the Canadian Medical Association, held on August 30th and 31st, was small. A most interesting clinic was held at the Montreal General Hospital. Beside this the discussion of the question of medical reciprocity and the election of officers were the main features.

Dr. Walker (St. John, N.B.), presented the report of the committee on Interprovincial Registration, and moved its adoption, as follows:

"The committee beg leave to report that the Medical Councils of Quebec, Prince Edward Island, Nova Scotia, New Brunswick and Manitoba have signified, by resolution, their approval of the resolution of the Committee of 1896, and have accepted them as a basis of agreement for Interprovincial Registration.

"We, therefore, recommend that the matter be referred to the councils mentioned to formulate an agreement and to carry it into effect.

(Signed) "D. March, C. S. Parke, H. Cholette, J. M. Beausoleil, Quebec; G. E. Coulthard, Thomas Walker, James Christie, New Brunswick; Edward Farrell, W. S. Muir, Nova Scotia; James Macleod, James Warburton, Prince Edward Island; R. S. Thornton, Manitoba; Dr. Tunstall, British Columbia."

Dr. Wright (Ottawa), asked if the report meant that Ontario was to be left out.

Dr. Walker replied that all the provinces except Ontario had accepted the basis proposed. They had no word from Ontario. Two Ontario members were present at the meeting of the committee, but they did not seem able to see eye to eye with the rest. That was all he knew about it.

Dr. Dixon said the Ontario Council could not enter into such an arrangement as was proposed without an alteration of their Act of Incorporation, and they were not prepared to go to the Legislature for a change at present. That was the reason there was no word from Ontario.

Dr. Pyne (Toronto), spoke to the same effect, and to establish his point read the following section of the Ontario Act:

"When and as soon as it appears that there has been established a 'Central Examining Board' similar to that constituted by this Act, or an institution duly recognized by the Legislature of any of the provinces forming the Dominion of Canada, other than Ontario, as the sole examining body for the purpose of granting certificates of qualification, and wherein the curriculum is equal to that established in Ontario, the holder of any such certificate shall, upon due proof, be entitled to registration by the Council of Ontario, if the same privilege is accorded by such examining Board or institution to those holding certificates in Ontario."

This section had been in force for some years, and the feeling in Ontario was that the other provinces should comply with it. Ontario had a five years' course, and wanted the other provinces to come up to that standard.

The English authorities also demanded a five years' course, and he thought the adoption of a four years' course, as proposed, would be found an obstacle in the way of the Canadian degrees being accepted in England. The Ontario doctors wanted medical federation, but they wanted it to extend all over the Empire.

Dr. Thornton, president of the Medical Council for the Province of Manitaba, said there would never be Interprovincial Registration if one province stood out and insisted on having its own way.

Dr. Bray (Chatham) said one difficulty in the way was that the other provinces accepted university certificates, while in Ontario they had a Central Examining Board, whose examinations 25 per cent. of the univer-

sity graduates failed to pass. According to their Act, they could not have Interprovincial Registration with a province which had not such a central examining Board. The Legislature of Ontario was hostile to the medical profession, and if they were asked to change the Act, they would wipe it out altogether and give the Province free trade in medicine.

Dr. Beausoleil said he would not like it to be supposed that the Quebec Medical Council was merely a registering Board. It kept control of the examinations, and in proof of this he read the following extract from the Quebec Act:

"The Provincial Medical Board shall, from time to time, as occasion may require, make rules and regulations:

"1. Respecting the duties of the examiners, the subjects and mode of the examinations, the time and place of holding the same, and generally all that it may deem expedient and necessary concerning such examinations.

"2. Respecting the study of medicine, surgery and midwifery, with regard to the preliminary qualifications, duration of study and curriculum of studies to be followed by the students.

"No change in the curriculum of studies fixed by the Board shall, however, come into effect until one year after such change is made.

"3. Respecting the appointment of assessors chosen from its members, or from among the registered members of the college, to attend the medical examinations of the various universities, colleges and incorporated schools of the Province, and to report to the Provincial Board upon the character of such examinations.

"Such assessors shall not be chosen out of any of the professors in any one of the said universities or incorporated schools, and should such report be, at any time, unfavorable to any university, college or incorporated school, the Provincial Board may refuse the license and the registration of the degrees or diplomas of the institutions so reported upon, so long as such examinations have not been amended.

"For such purpose the Provincial Board shall appoint or elect assessors, two or more of whom shall attend the examinations at each university, college or incorporated medical school, in accordance with one or more by-laws to be passed by the Board."

Continuing, Dr. Beausoleil urged that a decision should be arrived at to-day. A four years' course, of eight months each, had been accepted by all the provinces, except Ontario, as a sufficient guarantee of medical education, and he pressed for an immediate decision. If Ontario did not come in now, it would come in later on.

Dr. Dixon said the Ontario members were anxious to get Interprovincial Registration. They had no desire whatever to stand in the way.

Dr. Thorburn (Toronto), as President of the Ontario Medical Council, endorsed this view. It was simply a legal difficulty.

Dr. MacLeod (Prince Edward Island) said that at Confederation some of the provinces united and others followed. It would be the same to-day.

Dr. Wright (Ottawa) said he was sure no Ontario member wished to be understood as hostile to the resolution, but they wished their vote not to be interpreted as a reflection on the Ontario Council, in which he, for one, had a great deal of confidence. It was to be regretted that the Ontario Council did not send in a report, but the circumstances had been explained, and he hoped it would be understood that no discourtesy was intended.

The report was adopted without further discussion and without a dissentient voice.

The report of the Standing Committee was unanimously adopted as follows:

President—Dr. J. M. Beausoleil, Montreal.

Vice-presidents—P.E.I., R. MacNeill, Stanley Bridge; N.S., R. A. MacKeen, Glace Bay; N.B., P. R. Inches, St. John; Que., C. S. Parke, Quebec; Ont., A. McPhederan, Toronto; Man. J. R. Jones, Winnipeg; N.W.T., F. C. McWheen, Lethbridge; B.C., Dr. Tunstall, Vancouver.

Local Secretaries—P.E.I., P. MacLaren; Nova Scotia, Jas. Ross, Halifax; N.B., H. Lunan, Campbellton; Que., Dr. Marois, Quebec; Ont., Dr. Eclan, Ottawa; Man., W. J. Neilson, Winnipeg; N.W.T., Geo. Macdonald, Calgary; B.C., Dr. Boyce, Kelowna.

General Secretary—F. N. G. Starr, Toronto.

Treasurer—H. B. Small, Ottawa.

Next place of meeting, Quebec.

The proceedings were brought to a close by the usual vote of thanks.

WATERLOO AND WELLINGTON COUNTIES MEDICAL ASSOCIATION.

THE meeting was held in the Berlin Town Hall, on Friday, October 15th, and was well attended. Among those present were Drs. Bowlby, sen. and jun., Hett and Leakner, of Berlin; Dr. Webb, of Waterloo; Dr. Brock, of Guelph, member for the Council of the Division; Dr. Stewart, also of Guelph. The meeting was opened, with Dr. Herod in the chair. The programme consisted of reports of interesting cases and a paper on asthma, by Dr. S. Hett, which appears on page 808. The discussion of this follows. Before adjourning, on motion of Dr. Bowlby, seconded by Dr. Brock, a vote of thanks was extended to Dr. Beattie Nesbit, editor of the DOMINION MEDICAL MONTHLY, who was present, for the strong interest taken by the Journal in the County Associations. This was suitably responded to, and the meeting then adjourned.

Dr. Brock congratulated the writer of the paper on his able effort. It is a disease which we are all acquainted with. Being one of the old men, he naturally turned first to the old authors and next to the new, and found they had not advanced much in pathology, etiology or treatment over Sir Thomas Watson's work published in 1836. He reviewed generally the different treatments, and pointed out the failures of any to be considered in any sense specifics. He discussed Curschman's spirals, but considered them as an incident rather than a cause.

Dr. Bowlby said that in regard to 75 to 80 per cent. being due to disease of naso pharyngeal passages, that when you considered the number of cases who were immediately cured by change of domicile, that there must certainly be some cause beyond this, and that change of climate is the surest cure.

Dr. Brock said before Dr. Hett replies, he would like to say that Dr. Aikens states in his work that people who have asthma never die of consumption, that, according to his experience, this was not the case.

Dr. Stewart agreed with Dr. Brock on this point, and mentioned that Dr. J. Flint's work also contained the statement that those who had asthma never died of consumption.

Dr. Bowlby, jun., prefaced his remarks by saying that the papers must largely consist of quotations of authorities, and then being read, one member could do the reading for fifty, and the greatest benefit was derived from the discussion. In reference to the paper, he pointed out that that author had dealt very fully with different points. He laid stress more particularly on the forced inhalation of air and retention in the lungs. This he considered to be a mechanical cure, by stretching the tissues and thus relieving the spasm. As regards suggestion, he was present in Charcot's clinique at the time of his work before his return. The *British Medical Journal* had published an expose, and he did

not take any further interest in it. He regretted this, as he still felt there might be something in it On the only occasion on which he tried it he looked seriously at the patient, after the manner suggested by Dr. Hett, and told him that he would be better in a few minutes, but the patient replied, "Not by a d—— sight. I have had this thing too often."

Dr. Lechner agreed very largely with Dr. Hett. He considered that the cause lay chiefly in the upper air passages, and this was the teaching of the most modern authors, and he thought most success would follow this line.

Dr. Hett disagreed with Dr. Brock's idea of the older authorities, as these all considered it due to bronchial spasm, while the newer teaching is that it is due to vaso dilator paresis. In reference to the climate, he thought by changing the climate we remove the irritant. He agreed with Dr. Brock in reference to the consumptives. In reference to suggestion, he urged the profession to give much more attention to it, basing his belief that the effect of many drugs was chiefly due to suggestion.

CHATHAM MEDICAL AND SURGICAL SOCIETY.

The annual meeting of this Society was held in the rooms of the United States Consul, on Thursday evening, October 7th 1897, at 8.30 o'clock. There were, present, Drs. Duncan (President), Charteris, Rutherford, Backus, Fleming, Hall, Tye, Baker, Musson and R. V. Bray (Secretary). Dr. J. L. Bray and Dr. Holmes came in later. The minutes of the previous meeting were read and approved.

The Secretary then read his annual report, which stated that five regular meetings and one special meeting had been held during the year, at which the average attendance had been ten Two new members were elected during the year, Drs. Musson and Douglas, and two visitors were present one evening, Drs. Dunn (Beeton), and H. M. Robertson (Montreal General Hospital). The lecturing staff of the General Hospital performed their duties satisfactorily, and four nurses were graduated from the Training School on October 1st. Several good papers were read during the year, and the discussions which followed were interesting and instructive. In conclusion he wished the Society success during 1897-98. The report was received, and the Secretary tendered a hearty vote of thanks, to which he responded briefly.

Dr. Duncan, the retiring President, thanked the members present for their attendance during the year, thanked those who contributed papers and exhibited specimens, and concluded by asking for his successor in office the same generous assistance which had been given him during his term of office.

The officers for 1897-98 are: President, Dr. L. Backus; Vice-President, Dr. W. H. Tye; Secretary-Treasurer, Dr. R. V. Bray, re elected for the fifth term. Consulting staff of General Hospital, Drs. Tye, R. V. Bray and Baker. The President-elect thanked the Society for the honor they had done him, and asked the members present to co-operate with him in making this the Jubilee year of the Society. After some general discussion the meeting adjourned to the Grand Central Hotel, where they sat down to a bountiful supper, given by the retiring President, Dr. Duncan. A short toast list, embracing "The Queen and Empire," "The Medical Council," "Kindred Sciences," "Our Society" and "The Ladies," was gone through with, the responses being in every case very good. A vote of thanks to Dr. Duncan was responded to, after which the gathering sang "God Save the Queen," and departed, hoping for a repetition of the pleasant evening one year hence.

Special Selections.

REMARKS ON THE TREATMENT OF CUT THROAT.

WITH NOTES OF A CASE TREATED BY IMMEDIATE SUTURE IN LAYERS.

By R. G. Hogarth, F.R.C.S., Eng., Salisbury.

Late House Surgeon, St. Bartholomew's Hospital; and Senior Resident Medical Officer, General Hospital Nottingham.

Out of seven cases I have had to treat, the following is the only one of which I have full notes. Of the others, in one the wound was situated above the hyoid bone, three were through the thyro-hyoid membrane, one through the trachea. Unfortunately the immediate suture treatment was not adopted in all the cases.

J. R., aged 48, was admitted to the General Hospital, Nottingham, on February 12th, 1896, at 10 a.m. The skin was cold and clammy, the pulse rapid and feeble. He was covered with blood and vomit. There was one extensive wound in the neck, deeper on the left side than on the right, opening the larynx and pharynx by dividing the thyro-hyoid membrane. The epiglottis was completely divided at its base, and the middle constrictor of the pharynx was cut on each side. The thyroid cartilages were uninjured. The sterno-mastoid muscles were notched, but the large vessels had escaped injury. The wound gaped a great deal, and through it bubbled with expiration a mixture of saliva, vomit and blood; by the look of the tissues the wound had been made some hours, and there was only a little oozing of blood, the primary hæmorrhage from the division of the superior thyroid or lingual vessels having stopped. The larynx and pharynx were well sponged out, and made as clean as possible, all hæmorrhage carefully stopped, and the several tissues of the larynx brought together and fixed in position with chromic catgut. The epiglottis was done first, and came well and easily into position. The air passage was apparently rendered quite tight. The whole wound was then well washed out with biniodide of mercury solution, 1-500 first, then 1-2000, and the cut tissues united layer by layer with chromic catgut, except the skin, which was brought together with horsehair. A small drainage tube was inserted on each side at the ends of the wound, and an antiseptic dressing applied.

At 6 p.m. the temperature was 101°, the pulse 90 and of good volume. He was fairly comfortable. Now and then breathing was noisy. He had morphine ⅙ gr. early in the day. He coughed very little, but when he tried to feed by the mouth much severe coughing was produced. He was ordered a nutrient enema every four hours.

On February 13th the wound was dressed and looking very well. His general condition not so good; the pulse was irregular and small; the breathing was good, but there was slight stridor. There were no signs of pneumonia. Hypodermic injection of strychnine was ordered, *mv* of a one per cent. solution every six hours. He was fed by nasal tube night and morning (milk Oj, brandy ℥j, egg one). The rectal feeding was continued every six hours.

On February 14th he was restless, excited, and complained of headache. The temperature 104°; the pulse 104 and stronger. He was given morphine gr. 1-6 hypodermically.

On February 15th the wound was dressed; it was looking very well. The tubes were removed. The pulse was 90, and the general condition much better. The strychnine and rectal feeding was stopped. He swallowed custard and did not cough, and could talk in a whisper.

On February 19th feeding with the tube was stopped; the patient going on well.

On March 11th he was discharged cured from the hospital, the wound having healed by first intention.

I have to thank Dr. Anderson, under whose care the patient was in the hospital, for permission to publish this case.

From a consideration of the matter I think that every case of cut throat should be treated by immediate suture unless the patient is in a dying condition from shock and loss of blood. In such a case it should be done as soon as the patient recovers sufficiently to stand it.

It is very rarely necessary to give chloroform. I have always been struck by the condition of the patient in cases of cut throat. There is great depression of the nervous system, and the patient will allow the wound to be cleaned and sutured without appearing to feel in any way, although perfectly conscious of everything going on around him.

In consequence it is hardly ever necessary to administer chloroform, which must, taking the condition of the patient into consideration, add greatly to the risk. The wound must be very thoroughly cleaned after the air passage has been securely closed; It can be washed out with some strong antiseptic: hydrag. biniodide, 1 in 500, or carbolic acid 1 in 20.

The suturing should be done carefully layer by layer from the bottom, the air passage completely and tightly closed, and muscles and the fascia taken in order up to the skin. For the buried sutures chromic catgut or silk is the best. The skin wound is everted and brought into apposition with horsehair or silk worm gut, and if the wound is deep and extensive a small drainage tube can be put in at each end.

If the cleansing of the wound has been done thoroughly, in most cases the wound will heal by first intention, the period of recovery will be much shortened, and the patient will not run the many secondary risks that occur after the old treatment.

With regard to the use of a tracheotomy tube, it is never, I think, necessary to put in a tracheotomy tube at the time of suturing the wound; should the patient subsequently get œdema and severe dyspnœa, the larynx or trachea should be opened below the wound, and a tracheotomy tube inserted. This will very rarely be necessary, but in any case it must be better to do it when it becomes a necessity, rather than to leave a tube in the wound itself, or to make a fresh opening below at the time of suture. The head should be inclined slightly forward, and fixed in some way to prevent movement, and much depends on good nursing.

In the majority of cases feeding by the mouth is easily accomplished, but in cases in which the epiglottis, pharynx, or œsophagus are involved, it is best to rely for a time on rectal feeding or the nasal tube.

REPORT OF COMMITTEE ON THE SERUM DIAGNOSIS OF TYPHOID FEVER*.

DISCUSSION AT THE MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

1. In selecting the material used in making the test the choice between (*a*) serum, (*b*) dried blood, (*c*) fluid blood, and (*d*) blister fluid will depend largely upon whether the object be scientific research, clinical diagnosis hospital or private practice, or public laboratory diagnosis where the samples have to be sent some distance.

2. In spite of considerable variation in technique, there has been a remarkable uniformity in the results obtained by those taking part in the discussion, and their average of ninety-five per cent. of successes agrees with the general average of the cases, nearly four thousand thus far recorded in medical literature.

3. Each of several methods of technique advocated may thus give good results in the hands of those thoroughly familiar with the details found necessary in each case and the sources of error to be avoided, success depending rather on being perfectly familiar with one method than on the particular one selected.

4. For routine diagnostic work even the very simplest methods may give good practical results, but for recording scientific observations these methods which are accurately quantitative should be selected. This is especially necessary in reporting exceptional cases at variance with the general results recorded, or where the observations are made the basis of generalizations.

5. A complete reaction should comprise both characteristic clumping and total arrest of motion occurring within a definite time limit. For practical diagnostic work a dilution of one to ten, with a fifteen minute time limit, is convenient. In any doubtful case the dilution should be carried as far as one to fifty, or perhaps one to sixty, and a reaction not obtainable at that point should not be regarded as perfectly conclusive. For these higher dilutions the time limit should be extended to two hours.

6. Intensity of reaction in a given serum should be estimated by determining the degree to which it may be diluted without losing its power of giving a decided reaction, both as to agglutination and loss of motion.

7. The intensity of reaction shown by the same serum is influenced by the age, condition and virulence of the test culture and by the composition and reaction of the culture medium. For purposes of comparison the sensitiveness of the test culture should be taken into consideration.

8. The evidence so far recorded establishes that the reaction may be delayed or occasionally may not be obtained in cases of genuine typhoid infection; and also that it may be exceptionally present in non-typhoid cases, though not in an intense degree.

9. In investigating exceptional and contradictory results the following circumstances have to be considered: (*a*) The uncertainity of clinical diagnosis; (*b*) the absence of bacteriological or other confirmatory methods of diagnosis during life, giving decisive negative results; (*c*) the possibility of overlooking typhoid infection, even *post mortem*, in the absence of characteristic intestinal lesions where a very thorough bacteriological examination has not been carried out.

10. The modifying influences mentioned above suffice to explain the divergencies existing in the reports of different observers. Without being absolutely infallible the typhoid reaction appears to afford as accurate diagnostic results as can be obtained by any of the bacteriological methods at our disposal for the diagnosis of other diseases. It must certainly be regarded as the most constant and reliable sign of typhoid fever, if not an absolute test.

PROPHYLACTIC INJECTIONS OF BEHRING'S SERUM.

In the *Berliner klinische Wochenschrift* for August 9th Dr. F. Rauschenbusch describes a most interesting case in which toxic symptoms followed a prophylactic injection of Behring's antitoxic serum. There were two cases of diphtheria in the doctor's own house, and in order to prevent the extension of the disease to the other members of his household, each one (five in number) was injected with 200 units of antitoxic serum, all the five members being injected from the same bottle, which contained 1,000 units. In four out of the five there were absolutely no untoward results, but in one of the three children (a perfectly healthy girl) curious symptoms developed very rapidly. This child, aged 10

years, five minutes after the injection developed a marked eruption at the seat of injection. This eruption rapidly extended up the thigh and on to the right side of the face. It was accompanied by very great itching, and ten minutes later the whole body, especially the face, was covered with a dark scarlatinal-red rash, and the child fainted. A warm bath relieved the itching, but as soon as the child was taken out it again fainted, and remained in a collapsed condition until it was placed in a horizontal position. The radial pulse could not be felt on either side, and the heart, though regular, was exceedingly weak. The pupils were dilated, and were sluggish. The child was sleepy, it answered slowly, and the skin was cold and pale. The scarlatinal rash soon disappeared, except on the face. Two hours after injection there was vomiting, after which the general condition of the patient improved, but the heart weakness remained. Eight hours later there was itching of the hands and feet, both of which, as well as the face, were swollen and œdematous. There was some swelling in the mouth, giving rise to difficulty in swallowing. The condition of the heart continued to improve, but at this period the radial pulse was still almost imperceptible. The urine, of moderate amount, was of a dark red color, but it contained no albumen. Next morning the heart was stronger, and the patient continued to improve. Dr. Rauschenbusch, while still believing in the efficacy of Behring's serum, comes to the conclusion that there must be individual predispositions which make it necessary that care should be exercised in administering this substance. It is interesting to observe, however, that the same girl two years before had been injected with 600 units during an attack of diphtheria, and that there had been not the slightest reaction. The two younger children suffering from diphtheria also received 600 units, and were not affected in the slightest degree. It is evident from the whole history of this case that for some reason or other hæmolytic changes had taken place with considerable rapidity. Whether this is due to peculiarities in the blood, to a want of coagulative power, or some similar condition, is at present a matter for careful consideration. This case is of very great interest to the practitioner who has to inject prophylactic doses of serum where diphtheria has obtained a footing in a household. Dr. Rauschenbusch's only suggestion is that the prophylactic dose should be diminished in amount.—*Brit. Med. Jour.*

THE ERECT POSTURE AND THE PRE-EMINENCE OF MAN.

Many have been the attempts to express in a word the nature of our difference form—or, as we prefer to call it, superiority to—other animals. Man is variously described as a laughing animal, a cooking animal, and a sewing animal; in one place we are reminded that he has an additional small muscle in his leg; in another that he has a hippocampus major in his brain. It must, however, be generally admitted that our predominance is mainly dependent on our thinking capacity. To quote the famous saying of Pascal: "*L'homme n'est qu'un roseau, le plus faible de la nature; mais c'est un roseau pensant.*" In the able and learned address to the British Association—of which we publish an abstract to-day — Sir William Turner illustrates the correlation of this fact with the erect posture and the greater elaborateness of the brain. The shape and relative length of the limbs and the curvature of the spinal column all assist in the maintenance of this position, which is in itself mainly dependent upon the increased development of the brain Physically man compares unfavorably with many of the so-called lower animals; he has attained his present

position by virtue of his mental faculties alone. With the great development of the brain, the fore limb comes to predominate over the hind, and the hand develops in the service of the head. The latter, as the directing organ, requires to be raised above the rest, and the erect posture represents the acme of this tendency; any continuation of the process would result in the head being forced back, and would consequently entail degradation. It is interesting to note that, as Sir William points out, the spinal curves of a child before it acquires the erect posture are strictly quadrupedal in character, the specially human qualities being developed later, at a time corresponding ontogenetically with their phylogenetic appearance. From this period onwards hand and head progress *pari passu*, as they have no doubt done in the history of the race. The figures given showing the average cranial capacity of the great apes, Australian aborigines and Scotsmen, are most interesting as illustrating the rapid increase in bulk of the cerebrum. The great Edinburgh anatomist goes on to show, however, that man does not shine by reason of sheer mass of brain alone. Following Flechsig's researches, he points out that the so-called motor and sensory centres do not cover more than half of the cortex cerebri. The remaining portion is mainly occupied by a third set of centres known as association centres. The delimitation of the position, functions, and comparative physiology of these is one of the most important problems of the days. Flechsig believes them to be the parts of the cerebral cortex subserving the higher intellectual attributes, such as memory, judgment and reflection; but this view is at present pure hypothesis. It must, however, be noted that far more difference exists between the degree of elaboration of these centres and their convolutions in animals and human beings of varying types of intelligence than in that of the motor and sensory centres. There can be little doubt that the association centres serves to connect and harmonise those for motion and sensation between which they are physiologically interposed; more than this we cannot at present say. When we know more as to the date at which they and their fibres develop, we shall be able to state more definitely their relations to the moral qualities of which man is so proud. Such are the main anatomical points associated with the erect carriage of the human race, and such are the factors which have given the race its present pre-eminence.—*Brit. Med. Jour.*

CARBOLIC-ACID GANGRENE.

Physicians can not too often caution the public against the prolonged topical application of carbolic acid even in the weakest solutions. The occurrence of gangrene as the result of such application is undoubtedly much commoner than would appear from the literature of the subject, partly because in a large proportion of the cases the acid is used by laymen without the advice of a physician, and partly because the gangrene is often attributed to some other cause. Such at least is the opinion of Dr. J. Levai, of Budapest, (*Pester medicinisch-chirurgische Presse*, 1897, Nos. 8, 10, 11 and 12; *Centralblatt fur Chirurgie* August 14, 1897), who, among 20,417 patients treated in the surgical service of a hospital belonging to the Allgemeine Arbeiterkrankenkasse, has observed carbolic-acid gangrene in twenty-six cases—in twelve after the employment of weak solutions, and in fourteen as the result of the use of the concentrated acid. In nearly every instance the drug was used without medical advice, in the form of a solution kept applied continuously. In some of the cases it caused mumification of the soft parts, but in most of them it gave rise to gangrene of the

whole or a part of a finger through its entire thickness.

Levai has been able to find records of only forty-two cases of carbolic-acid gangrene in literature, but the same number of the *Çentralblatt* in which an abstract of his article appears mentions also a case reported by Morestin (*Bulletin de la Société anatomique de Paris* and three cases observed in the course of six months by Czerny *Munchener medicinischae Wochenschrift*). Morestin's patient was a child, two years old, to whose middle finger the mother had kept a solution, apparently very weak, applied for twenty-four hours. Mummification took place, also exarticulation of the finger at the junction of the first and second phalanges. Czerny makes his cases the text for a renewed warning to the profession and the public against the use of even the weakest solutions for continuous application. Levai's article closes with an account of his experimental confirmation of this clinical experience, showing that it is really the acid that is the cause of the trouble.

Carbolic acid is the germicide with which the public are best acquainted, it is the one that first presents itself to the lay mind in case of a wound, and it is a drug that almost anybody can obtain without trouble. It is highly important, therefore, that the danger here pointed out anew should be made known to the community extensively.—*Ed. N.Y. Medical Journal.*

ARECOLINE AS A TÆNIACIDE.—This drug, says a writer in the *Journal de médicine de Paris* for August 1st, is one of the alkaloids found in the areca nut, and its physiological action is manifest on the contractions of the intestine; as a tæniacide, its action is comparable to that of pelletierine. M. Ricapet observed, as a physiological action of the product which he terms arecoline hydrochloride, that immediately after the injection there was a considerable increase of the amplitude without diminution in the frequency of the cardiac pulsations, which condition persisted for several hours. According to M. Ricapet, toxic doses produce the arrest of the heart about two hours after the injection, and this arrest takes place in diastole and has a certain analogy to that obtained by Prevost in his remarkable studies with muscarine. The auricles and the ventricles are relaxed and distended by the blood; there is however, this difference, that the heart arrested by muscarine remains excitable, whereas when arecoline hydrochloride is used this is not the case. Although, says the writer, this drug is little used in therapeutics, it is worthy of a better place than it now occupies. It will be found very useful in obstinate constipation, because of its action on the contractility of the intestine; in certain cases of intestinal occlusion, at least, in the beginning; finally, in all cases in which it is necessary to stimulate the sluggish or paralyzed intestine, either following a local condition or secondary to a general condition. As a vermifuge or tæniafuge it may also be used with good results; as its activity is very great, however, it must be employed cautiously and the initial dose of 0.015 of a grain must not be exceeded unless it is necessary and the drug is well borne, Arecoline possesses still another property. According to Frohner, says the writer, arecoline is a sialagogue of the first rank, which not only is comparable to pilocarpine, but even exceeds it. Salivation occurs in about five minutes after its injection and obtains its maximum in about half an hour. Arecoline, according to the same author, is also a laxative equal to eserine. Acting like a combination of eserine and pilocarpine it is worthy, he says, of being tried in all diseases in which it is desired to obtain evacuation of the intestine with liquefaction of its contents. M. Martin employed this drug as a tæniafuge, using sixty grains of the powdered areca nut to obtain the de-

sired result, and he observed the absence of colic during the moment of expulsion. The advantages of arecoline over pelletierine are that it costs less, the active dose is not toxic, it does not cause colic, and it is not necessary to follow its employment with a purgative. If arecoline is to be employed for its action on the organism itself, it may be administered hypodermically or by the mouth. If it is a question of parasites in the intestine, arecoline should be administered only by the mouth, and in such a form as to prevent its absorption until it reaches the intestine—that is, in pills coated with keratin or gelatin. The writer recommends doses of 0.007 of a grain, repeated several times, according to the age of the subject and the tolerance shown, until the desired result is obtained.—*N. Y. Medical Journal.*

COLD DRINKS.—Among the various discomforts entailed upon us by the hot weather is thirst, which leads to many accidents. First and more especially is the danger arising from the ingestion of ices and cold drinks, which so many people fly to directly they feel hot. Difficult as it may be to explain in precise physiological terms the evil consequences which so often follow the sudden application of cold to the mucous membrane of the stomach when the body is overheated, there is no doubt about the fact, and people would do well to remember the risk they run when they follow their instinct, and endeavor to assuage their thirst by huge draughts of cold fluids or the rapid eating of masses of iced compounds. Ices appear to be especially injurious, doubtless in consequence of the intensity of the shock produced. Other evils, however, besides those connected with local chill are apt to arise from the copious drinking of fluids in hot weather. Drink leads to perspiration, and excessive perspiration, with the consequent tendency to catch cold, is one of the main dangers of hot weather in our changeable climate. Physiologically speaking, no doubt perspiration is one of the normal means by which the animal heat is regulated. But a man wrapped up in thick clothing is hardly in a physiological condition, and when the interstices of that clothing are full of vapour the good influence of perspiration in lowering the temperature is much lessened. On the other hand, its dangers are much increased, for the chill goes on long after the heat is past, and, unless the clothes are quickly changed, rheumatism, bronchitis, and other evils are only too apt to supervene. There can be but little doubt that the profuse perspiration which is the cause of so many dangers is greatly aggravated by drinking, and especially by drinking alcoholic fluids. No one can watch a tennis match without noticing how the men perspire while the girls hardly turn a hair. Some, perhaps, will say that the girls play the feebler game; but, game or no game, they exert themselves. The same also may be seen at any dance. The secret is that the men follow their instinct and slake their thirst, while the girls simply bear it. It should be remembered that thirst is the result of want of fluid in the blood not want of fluid in the stomach, and that a pint or more may be drunk before a single ounce is absorbed. Any attempt, then, to assuage thirst by rapid drinking must of necessity lead to far more being taken than is wanted, the moral of which is that if we must drink, at least let us drink slowly.—*British Medical Journal.*

BITTER FENNEL OIL. — Tardy finds that French cultivated bitter fennel oil contains phellandrene, cymene, fenchone, estragol, anethol, anisic aldehyde, anisic ketone, anisic acid, and a crystalline body having the formula $C_{13}H_{14}O_2$.—*Journ. de Pharm.* [6], vi., 98.

SOLDERING ALUMINUM. — A. T. Stanton points out that it is not easy to solder aluminum simply by using an alloy of definite composition without a flux, and also that the use of silver chloride for this purpose is very troublesome indeed. Cadmium iodide, however, gives more satisfactory results, a violent evolution of iodine vapour being accompanied by the formation of an alloy of cadmium and aluminum on the surface of the metal. A further improvement is effected by mixing concentrated zinc chloride solution with a little ammonium chloride, evaporating in a porcelain dish, igniting at a low red heat till part of the ammonium chloride is volatilised, then mixing the fused chlorides with cadmium iodide. The proportions of zinc chloride and cadmium iodide must be found by experiment, and the result is a flux which enables tin, etc., to unite perfectly with aluminum. The melted flux should be dropped on the surface of the metal to be soldered, and some powdered metallic tin is also sprinkled on the surface. Then heat the aluminum over a Bunsen flame till the flux just melts, after which it can be spread where wanted with a piece of copper wire. As the temperature is further raised the flux decomposes and the tin readily alloys itself with the surface of the aluminum. Fused lead chloride may be used instead of cadmium iodide.— *Nature*, lvi., 353.

PREGNANCY AND FIBROIDS.— Keiffer (*Sem. Med.*) discussed before the Obstetrical Society of France the special indications for the treatment of pregnancy and parturition when complicated by fibrous tumours of the uterus. In pregnancy there are risks of miscarriage, of hæmorrhage, of premature birth, of abnormal presentations, of placenta prævia, of dystocia through excessive development of the tumor, of various degenerations, of dangerous compression of the pelvic or abdominal organs, of ascites, etc. The premature death of the fœtus forms in conjunction with these accidents an additional source of danger. On the other hand the tumor may follow the physiological modifications of normal uterine tissue, and act like the latter in all respects; in such a case curetting of the uterus after miscarriage is possible. Should the pregnancy reach its normal termination hæmorrhage may be met in the ordinary way, podalic version can be performed or instrumental delivery effected as best suited to the case, or the tumor causing the dystocia may be removed either by laparotomy or *per vaginam*. Extirpation of the whole organ may be possible in the worst cases. Whatever may be the percentage of accidents in such cases, it is enough to show that the woman can be delivered, and may give birth to a living child, to make it easy to refuse hysterectomy. Mere curetting seems to be enough to deprive fibromata complicating pregnancy of most of their dangers. The method of treating severe hæmorrhage by hypodermic and intravenous injections of artificial serum has also contributed largely to this result. Curetting has not only a beneficial action on the tendency to hæmorrhage, but protects the uterus against saprophytic or microbial infections, to which the presence of an imperfectly vascularised neoplasm renders it more prone. As regards general treatment, the diet should be regulated, rest enjoined, and hydrastinine and kindred substances should be administered. In advanced pregnancy, the amount of obstruction by the tumor will determine the procedure necessary for safe delivery. During labor abnormal presentation or the presence of dystocia will indicate whether version should be performed; in the latter condition version is the most advantageous mode of extraction. Removal of the fibroma is advisable when it in itself constitutes the main obstacle to delivery, and when it is subperitoneal, pedunculated, or easy of access.

Either variety of pelvotomy is indicated when the tumor is in the lower uterine segment, and the diameter of the bony pelvis so reduced thereby that the alternative is a Cæsarean section. Total extirpation of the uterus and appendages is indicated (1) when the tumor independently of the pregnancy calls for operation; (2) when pregnancy is arrested and delivery impossible, (3) when there is a suppuration following retained placenta; (4) after Cæsarean section necessitated by fibrous tumors.—*Brit. Med. Jour.*

LESIONS PRODUCED BY THYROID EXTRACT.—H. J. Berkley (*Bulletin of the Johns Hopkins Hospital*) has investigated the various lesions induced by the action of thyroid extract on the cortical nerve cells. Taking into consideration the very grave symptoms of a toxæmic nature observed in so many cases of thyroid administration, more particularly those involving cerebral and vasomotor functions, the author undertook a series of observations with the view of ascertaining the nature of the lesions. The first portion of the investigation was made upon patients in an insane asylum. In each case a pill containing five gr. of fresh sheep's gland was administered daily, which was subsequently increased to two or three, depending upon the results. There was loss of weight, tachycardia, and enfeeblement of the cardiac action in each instance, with increase of cutaneous transpiration, irritability, and more or less mental and motor excitement. This occurred in all cases, no matter how depressed or demented the patients had been previous to the administration. One patient died before the excitement had subsided, with evidence of acute tuberculosis, and the others showed an œdematous condition of the integument of the forehead and cheeks similar to that observed in myxœdema. All showed more or less restlessness, with both mental and motor excitement, and in some instances there was considerable mental improvement, though not in all. In view, therefore, of the effect on the mental condition of the same patients, it was decided to administer thyroid to animals in order to examine their nerve tissues. Five mice and three guinea pigs were treated with thyroid extract. In the case of the mice there was swelling of the face, some emaciation, and loss of strength. In the guinea-pigs the general symptoms were similar, and in all cases the administration was continued till the animal died. Microscopic examination of the cerebrum was made in all cases, both with the silver phosphomolybdate and other staining methods; no lesion was found of either nerve elements or neugralgia; there was no varicose or atrophied dendrites or loss of gemmulæ. The corpora showed no loss of angularity, and the axôns and appendages were all healthy. No nuclear change in the cells could be ascertained, and the blood vessels were carefully examined without the discovery of any lesion. It would seem from these investigations, so far as they go, that the toxic action of thyroid is of a different nature from that of other conditions, and one which we are not, therefore, in a position to understand.—*Brit. Med. Jour.*

THE CAUSATION OF THE PRESYSTOLIC MURMUR.—Brockbank (*Med. Chron.*), discusses at length the cause and rhythm of the cardiac murmur ordinarily styled presystolic, but which he prefers to define as a crescendo *bruit* rapidly ascending in pitch, and terminating abruptly with the closure of the mitral valve. He states that two theories of its origin have been put forward. The first was originally suggested by Fauvel in 1843, and holds that the murmur results from the forcing of blood through a stenosed mitral orifice by a hypertrophied left auricle, aided by the aspirating

force of the ventricle in diastole. The second, devised by Ormrod in 1864, is that the murmur is produced by blood regurgitating through the stiff rim of the valve orifice before sufficient force is generated in the ventricle to close the valve. The most recent supporter of the first theory is Sansom, of the second Dickinson. The author propounds a third explanation—namely, that the murmur is caused by blood rushing through a gradually but rapidly diminishing stiff-rimmed, narrowed, mitral valve under a progressively increasing pressure. He illustrates this by the effect of compressing with one's teeth or lips an india-rubber tube through which one is blowing. He agrees with Dickinson's view that the accentuated first sound is due to the hard edges of the stenosed valve being forced together by the pressure of ventricular systole. The author claims to be able to differentiate the abrupt wooden quality of this sound from the more ringing accentuated sound produced by the systole of the right ventricle, and often associated with the other. Admitting that the "presystolic" *bruit* is produced by blood rushing through a closing orifice, he next takes up the question whether the closure is the result of auricular or ventricular action. Even in health he believes it to be due not only to the pressure of the blood, but also to a preliminary contraction of the extreme apex of the ventricle, which he describes as preceding the general systole of that chamber. When the mitral valve is thickened, a greater force is required to close it; and Brockbank regards it as more probable that this should be provided by the ventricle than by the hypertrophied auricle. If the force is ventricular in origin, he considers that some blood will regurgitate through the stiff orifice before the intraventricular blood pressure is raised high enough to overcome the resistance of the diseased valve. He hence concludes that the murmur ordinarily known as presystolic is really early systolic, and is due to regurgitation through a stenosed mitral orifice in the early stages of ventricular systole.—*Brit. Med. Jour.*

THE NEW TUBERCULIN.—Professor Juan L. Hohr, of Cadiz (*Anales Medicos Gaditanos*), reports four cases treated with Koch's new tuberculin. (1) Boy, aged seven years, suffering from Pott's disease and tuberculous osteitis of the femur. There was a fistula with scanty discharge, with pain in the limb so severe as to prevent sleep, and great weakness. On April 21st 1 c.cm. of the $\frac{1}{100}$ solution, and on the 23rd 2 c.cm., were injected. The immediate result was increase of suppuration and cessation of the pain. Further injections were followed by rise of temperature, sleeplessness, and loss of appetite, and they were discontinued for two or three weeks. The treatment was then resumed, but the febrile symptoms produced were so marked and showed such persistence that it was again abandoned. The sole benefit observed in this case was the total cessation of pain. (2) A man, aged twenty-three, with pulmonary tuberculosis at both apices. Injections of the $\frac{1}{100}$ solution caused increase of cough and diminution of appetite; the febrile reaction caused by the tuberculin continued for some days after the injection. (3) A man, aged thirty-one, with tuberculous adenitis of the cervical glands and ulcers on the neck and shoulders; no chest symptoms. Injections of 1 and 2 c.cm. of the $\frac{1}{100}$ solution were followed by the development of sharp catarrh with abundant discharge and cough. The effect of the tuberculin on the diseased parts in the neck was to set up inflammation in the scars of old ulcers, which quickly broke down, exposing caseous material which was eliminated in a few days. But new points of ulceration appeared in the neck, and at the same time chest symptoms developed to such an ex-

tent that it appeared that the disease had been kindled in several foci. On the injections being discontinued the patient regained his strength, and the ulcers healed under surgical treatment. (4) A woman, aged thirty-six, suffering from superficial lupus of the nose and upper lip, which were the seat of scars; the disease was of eight years' standing. There was a fresh patch on the chin and another along the jaw. Injections (1 and 2 c.cm.) of the $\frac{1}{500}$ solution caused disappearance of the redness around the patches, but the patient complained of great weakness and pain in the limbs and of feeling "ill all over." The treatment was therefore discontinued. The author's experience leads him to conclude that the new tuberculin, even in the highest degree of dilution, always causes reaction, though the intensity may vary. Koch's statements cannot, he thinks, be reconciled with clinical facts, and he considers the new tuberculin "impossible" as a therapeutic agent.—*Brit. Med. Jour.*

SWELLING OF THE PAROTIDS IN URÆMIA. — Richardière (*Journ. de Med.*) describes this condition, which has not attracted very much attention. Swelling of the parotids is well known in certain intoxications, such as mercury, arsenic, etc., and in uræmia, which may be looked upon as a typical intoxication, it is also observed. The author relates a case of uræmic poisoning with dyspnœa and cephalalgia, in the course of which there was pain at the angle of the jaw, accompanied by swelling of the parotid region. Both parotids were attacked at the same time. The swelling lasted four to five days and then completely disappeared. These parotid complications in uræmia, may be due to two causes: greatly increased secretion or chemical modifications thereof. Increased secretion is a frequent occurrence of uræmia, and a large number of cases of ptyalism are recorded, and in a case observed by Barié 900 g. of saliva were secreted in 24 hours. In the author's case there were no increased parotid secretions nor ptyalism, and in this instance, therefore, the parotid lesion would seem to be due to chemical alteration in the saliva. It is known also that in cases of deficient renal action the saliva contains a large amount of urea, and the parotid would therefore seem to have a certain vicarious action in some cases of renal disease.—*Brit. Med. Jour.*

CHLOROSIS.—Biernacki (*Wien. med. Woch.*,) discusses the diagnosis of chlorosis, which is often difficult, as none of the symptoms can be considered pathognomonic. Much stress has been laid on the color of the skin, and this has generally been supposed to be due to the deficiency of hæmoglobin; but this the writer has found to be incorrect, for with the appearance of profound anæmia there is often only the slightest chemical change in the blood, while with no apparent anæmia the change may be profound. The color of the skin does not necessarily depend on the amount of hæmoglobin present; there are other coloring matters in the blood of which little is known at present, and it is to these that the color of the skin is due in chlorosis. Many of the symptoms—for example, dyspnœa, headache, etc.—have been attributed to deficiency of oxygen consequent on the deficiency of hæmoglobin, but deficiency of hæmoglobin does not necessarily diminish the amount of oxygen present, for it has been shown that there may be even more oxygen than normal in such blood. The writer considers that great stress is to be laid on the clear appearance of chlorotic blood, and it is to this clearness, due to some anomaly of the blood pigments, in which hæmoglobin plays little or no part, that the color of the skin is due. The color of the skin, however, is not essential to the diagnosis of chlorosis, which may exist with healthy-colored

cheeks; in women at the climacteric symptoms are sometimes seen exactly like those of chlorosis, with the exception of the color. The most constant change of the blood in chlorosis is hydræmia—that is, deficiency of albuminous bodies, and although the prognosis of chlorosis cannot at present be determined by examination of the blood, the writer fancies that cases with profound hydræmia get well more quickly than those with only slight hydræmia.—*Brit. Med. Journal.*

GENERAL PARALYSIS OF DIABETIC ORIGIN.—De Holstein (*Sem. Med.*) discusses the relation between diabetes and general paralysis. De Calvi, in 1864, was the first to suggest that the cerebro-spinal complications met with in diabetes were the result and not the cause of this condition. Cases of diabetes may be divided into three groups in their relation to general paralysis: (1) Transitory Glycosuria is common in neurotic and insane patients, and has no etiological significance in general paralysis. (2) Glycosuria as a consequence of general paralysis. Two cases have been reported where glycosuria was present for a time, too short for it to be an etiological factor, and then ceased abruptly before the onset of general paralysis. (3) True diabetes causing general paralysis. Three such cases have been reported, two, however, being inconclusive. The third by Landenheimer (*Arch. f. Psychiatr*, xxix. 2) is as follows: A man of good constitution, who had never had syphilis, and was not an alcoholic, but was of a neurotic family, had suffered from diabetes for twenty years. When forty-eight years old intense headaches, vertigo, amblyopia, and loss of memory set in. These symptoms all improved after a course at Carlsbad, which caused a disappearance of the glycosuria. This improvement was only temporary, and on the return of the sugar in the urine typical symptoms of general paralysis began, and advanced rapidly. Under an anti-diabetic diet, the sugar was reduced, and, *pari passu*, with this reduction the mental condition improved, until the patient was able to act as an assurance agent very satisfactorily, the only signs of his former condition being a slight left facial paresis, *plus* knee-jerks, and a difficulty in pronouncing long words. Although clinically undoubtedly a case of general paralysis, it is impossible to prove that it was so pathologically, and so Landerheimer named it "diabetic pseudo-general-paralysis." De Helstein thinks this case strongly supports Charpentier's theory of the toxic origin of general paralysis.—*British Medical Journal.*

THE DISMAL SWAMP.—We have many 'Switzerlands of America" and health resorts without number, from Maine to Colorado, of more or less prestige, but these are to be rivalled, if not eclipsed, presently, it is thought, by, of all other places, the Dismal Swamp of Virginia. This hitherto waste and unproductive region has been found, on closer and more scientific inspection, to be by no means as dismal as it used to be depicted in our geographies and to possess features which ought to make it an attractive watering place and sanitarium. It is not, as most people imagine, a vast bog sunk low in the ground, into which the drainage of the surrounding country flows. On the contrary, according to accurate surveys, it is above the level ground, some fifteen or the twenty feet, and, instead of being the receptacle, is, in its immense sponge-like bulk, gathering the waters that descend upon it, the source of rivers, five of which take their origin within it and flow onward to the sea. The swamp is entirely of green timber; there is no decaying wood, the two principal woods that grow there being the juniper and the cypress which never rot. They fall on the ground like other

trees, but instead of decomposing, they turn into peat, and in that form remain unchanged and indissoluble. There is nothing in the swamp to create miasma; no rising of the tides and decomposition of rank vegetables; no marshes exposed to the burning rays of the sun. All is fresh and sweet, and the air is laden with balmy odors. The water is tinged with juniper to a faint wine hue, and it is thought to possess valuable sanitary qualities. It is often used by vessels going on a foreign cruise, on account of its healthful properties, and also because it keeps fresh and clear for years. Those who live near it are not slow to declare that it is the healthiest place on the continent. — *Architecture and Building.*

THE HEALTHFULNESS OF CRYING FOR INFANTS.—A "good cry" is an expression often made use of, and at first sight it seems decidedly misapplied, but upon a little consideration it will be allowed that after all in many instances it is not an inappropriate term. Of course crying is usually associated in one's mind with grief or pain although even when such is the case crying is a relief and thus does good. There are many occasions, however, when crying, and violent crying, is of the most decided benefit to children. In reference to this the *Hospital* says: "In children a great change takes place during crying in the manner in which the respiration is carried on. Expirations are prolonged sometimes for as much as half a minute, and are interrupted by short inspirations. During expiration the glottis is contracted so that intrapulmonary pressure rises considerably, and there can be but little doubt that it is the equal distribution of this increased air pressure throughout the whole of the chest leading to dilatation of portions of the lung that have become more or less collapsed, that is the explanation of the great benefit which often results from crying, in cases of infantile bronchitis, and of the large discharge of bronchial mucus which so often follows. Children may become very blue during the paroxysm, but the deep respirations, which succeed quickly, restore the circulation to a better condition than before in consequence of the large lung space available. It might be added, that in cases of empyema, too, when pus has collected, that if a child when being operated on cries, it is a great help towards getting rid of the purulent matter.—*Pedriatics.*

DISINFECTION OF TYPHOID EXCRETA.—Dr. W. Gilman Thompson (*Albany Medical Annals*, April, 1897) concludes as follows: 1. The best disinfectants of typhoid stools for practical use are: (*a*) 1 to 500 acidulated solution of corrosive sublimate; (*b*) 1 to 10 crude carbolic-acid solution; (*c*) chlorinated lime. 2. Owing to the possibility of injury to plumbing, the carbolic-acid solution is preferable wherever plumbing is concerned. The lime is best for country use in privies and trenches. 3. The disinfectant should be thoroughly mixed with the stool and left in contact with it for fully two hours. Enough of the disinfectant must be added to cover completely the stool with the solution. 4. The bed pan should be kept readily filled at all times with at least a pint of the disinfectant, into which the stool is at once discharged, and should be cleaned with scalding water and one of the disinfecting solutions. 5. Rectal thermometers, syringes, tubes, and all utensils coming in contact with any of the fæcal matter must be disinfected with the corrosive-sublimate or carbolic-acid solution. 6. After each stool the patient's perineum and adjacent parts should be washed and sponged with a 1 to 2,000 corrosive-sublimate solution. 7. Nurses and attendants should be cautioned to wash their own hands thoroughly and immerse them in a 1 to 1,000 corrosive-sublimate solution

after handling the bedpan, thermometer, syringe, or patient, or giving sponge or tub baths. 8. All linen and bedclothing used by the patient should be soaked in a 1 to 20 carbolic-acid solution and subseqdently boiled for fully two hours. 9. Disinfection of the stools should be begun as soon as the diagnosis of enteric fever is established, and should be continued for ten days after the temperature has remained at the normal. 10. In localities where a proper drainage system is lacking, the stools should either be mixed with sawdust and cremated, or buried in a trench four feet deep after being covered with chloride of lime.—*Medical Record.*

THE MICROBE OF YELLOW FEVER: REWARDS FOR DR. SANARELLI.—It is announced that a Bill has been introduced into the Legislature of Brazil offering a prize of $220,000 (£44,000), to be divided into two equal parts, which are to be awarded to the author of a work demonstrating the existence of a bacillus of yellow fever and the method of recognising it, and to the discoverer of an efficacious means of treating the disease. The Medical Institute of Rio Janeiro, the Hygienic Institute of Berlin, and the Pasteur Institute of Paris are to decide as to the award of the prizes. The bill further provides for the reservation of a sum of $110,000 (£22,000) to be applied to the creation of an establishment for the preparation of a curative serum, the discoverer of which will be appointed organising director of the institute. The former of these prizes will probably be awarded to Dr. Sanarelli, an account of whose researches on the etiology of yellow fever was published in the *British Medical Journal* of July 3rd. In the meantime the Uruguay Legislature has conferred honorary citizenship on Dr. Sanarelli in recognition of his discovery of the microbe of yellow fever, and has voted him a grant of $10,000, at the same time expressing regret that "the unhappy condition of the country does not admit of its doing more to show its gratitude to a physician and scientist who has already laid those regions under such great obligations."—*British Medical Journal.*

TREATMENT FOR INSECT BITES.—Children, without doubt, suffer more severely from the effect of the bites of insects than adults, and it is comforting at all times to read of any description of treatment that may give relief. Still the truth must be confessed that many of the advertised remedies do not act up to expectation, their curative or soothing qualities are grossly exaggerated, so that when one hears on really reliable authority of an efficient anti-inflammatory, one feels tempted, even in the face of former unlucky experiences, to give it a trial. Such a panacea for insect bites is said to be found in ichthyol. W. Ottinger says of ichthyol, in *Munchener Med. Wochens schrift*, 1896: "In the case of bites of flies, bees, wasps, etc., the application of ichthyol quickly causes the inflammatory phenomena to abate, and in a few minutes all feeling of pain, burning, and itching ceases. It is best applied pure, a thick layer being laid on with a brush." During this present summer the mosquito plague, as well as that of other insects, has been, owing to the excess of moisture, exceptionally troublesome, while to children in parts of the country it has been most dangerous.—*Pediatrics.*

OXYSANTONIN.—Jaffé obtains from the organisms of dogs and rabbits which have been given santonin, a substance which he calls santogenin. He recently succeeded, by means of repeated (10 to 15) crystallisations of santogenin with hot alcohol, in obtaining a compound of the formula $C_{15}H_{18}O_4$, which he describes as α-oxysantonin. This is very difficult to dissolve in boiling alcohol, or in

chloroform, and is almost insoluble in ether. Continual boiling with water dissolves small particles, which separate again almost completely on cooling. The solution is neutral. The compound is readily soluble in hot acetic acid; sparingly so in cold. It is slowly dissolved on being heated with diluted alkalis and alkaline earths. α-Oxysantonin crystallises from alcohol and chloroform in colorless, transparent, irregularly fringed tablets, from acetic acid in shining leaves, from alkaline solution, on the addition of acids, in fine needles. The author also isolated from the ether extract of the urine of the rabbit β-oxysantonin. The oxysantonin obtained from *Artemisia maritima* is considered to be a third isomer, and may be described as γ-oxysantonin.—*Pharm. Centralh.*, xxxviii., 351.

JUGLANS BARK.—The inner bark of the root of *Juglans cinerea* is official in the United States Pharmacopœia, and an attempt to distinguish the powdered bark from that of *J. nigra* has been made by G. E. Cooley, acting under the direction of a research committee of the revision of the U. S. P. Transverse sections of the two barks revealed a similar distribution of the hard bast through the softer tissues, in much interrupted bands of fibres. In vertical sections, particularly in radial ones, rows of parenchymatous cells are seen accompanying the strands of long bast fibres which occur in both species. In *J. cinerea* each of these cells contains a cluster crystal of calcium oxalate, but this is never the case in *J. nigra*, the cells of which contain single klino-rhomboidal crystals only. Cluster crystals occur in both species, in cells scattered through the soft bast, but the klino-rhomboidal crystals associated with the fibres are characteristic of *J. nigra*. An examination of coarse powders of the two barks shows that the characteristic crystals in each case still cling to fragments of the bast fibres, and afford a ready means of distinction. In finer powders the klino-rhomboidal crystals are not often found in connection with the cell tissue, but they are seen scattered in abundance over the slide when examined under the microscope. These crystals are very numerous and easily seen in the powdered root bark of *J. nigra*, however fine the powder may be. To exclude the stem-bark of *J. cinerea*, it is suggested that the powder should contain no bast fibres of diameter so great as 0·05 in., and rarely any with a diameter greater than 0·001 in. Finally, unless the powder gives, immediately, a bluish (not greenish) black coloration with a one per cent. solution of ferric chloride, it should be rejected as having been prepared from bark not collected at the proper season of the year.—*Journal of Pharmacology*, iv., 195.

CAFFETANNIC ACID.—Cazeneuve and Haddon, working on the osazones obtained from caffetannic acid and the sugar which results from its decomposition, find that the hitherto accepted formula of Hlasiwetz for these bodies is erroneous. The acid prepared according to that author's directions gave a crystalline osazone with phenyl-hydrazine, which was easily obtained pure, melting at 180° C. Analysis of this body shows that the molecule caffetannic acid consists of one molecule of caffeic acid with two molecules of a sugar in the form of a saccharine di-ester, as represented by the formula—

$$C_6H_3\begin{cases} CH{:}CH.COOH \\ OC_6H_{11}O_5 \\ OC_6H_{11}O_5 \end{cases}$$

or $C_{21}H_{28}O_{14}$. The examination of the sugar resulting on the hydrolysis of the acid points to the formula $C_6H_{12}O_6$. Treated with basic lead acetate it gives first a white and then a yellow precipitate. The latter has the composition $(PbO)_2Pb(C_{21}H_{37}O_{14})_2$.—*Journ. de Pharm.*, [6], vi., 59.

THE DOMINION · MEDICAL · MONTHLY
... AND ...
ONTARIO MEDICAL JOURNAL

EDITOR:
BEATTIE NESBITT, B.A., M.D., F.C.S.

TERRITORIAL EDITORS:

No. 1.—Dr. J. DUNCAN, Chatham. No. 4.—Dr. J. CAMPBELL, Seaforth. No. 9.—Dr. A. R. HARVIE, Orillia.
" 2.—Dr. M. F. LUCAS, Ingersoll. " 6.—Dr. GILLIES, Teeswater. " 10.—Dr. H. J. HAMILTON, Toronto.
" 3.—Dr. W. J. WEEKES, London. " 8.—Dr. H. R. FRANK, Brantford. " 11.—Dr. J. A. CREASOR, Toronto.
No. 14.—Dr. J. S. SPRAGUE, Stirling. No. 17.—Dr. C. J. CHIPMAN, Ottawa.

Address all communications to the Publishers, THE DOMINION MEDICAL MONTHLY AND ONTARIO MEDICAL JOURNAL, Rooms 97, 98, 99, Confederation Life Building, Toronto, Canada.

VOL. IX. TORONTO, OCTOBER, 1897. NO. 4.

ASTHMA.

At the recent meeting of the Waterloo and Wellington Counties Medical Association, Dr. Hett read a paper on this subject which was discussed by the gentlemen present.

We feel that Dr. Hett, like all specialists, tends to over-estimate the influence of nasal conditions as a causative factor in asthma. The conditions which predispose certain people to these attacks we do not know. Whether the symptoms are actually produced by bronchial spasm, vasomotor dilatation, or spasm of the diaphragm is disputed. We believe that bronchial spasm is the chief factor. This has been most clearly shown by the experiments of Einthoven. His method is as follows: "A constant volume of air is blown into the lungs by a syringe, the piston of which is moved up and down by the eccentric of a wheel turned at regular speed. The intrapulmonary pressure is measured simultaneously by a resisting manometer, which, by means of an especial mechanism, comes into free connection with the lungs only for a moment at a time during a definite period of respiration. With this apparatus a narrowing of the bronchi must manifest itself by an increase in the resistance to be overcome by the blown in air, and the registering manometer must consequently register by its float an increase of pressure. This ingenious apparatus, as the curves which it produced show, gave accurate and unmistakable results, with respect to the narrowing of the bronchi through stimulation of the peri-

pheral ends of the vagus, which were surprising.

By stimulating the vagus, Einthoven succeeded in obtaining an increase in respiratory pressure of more than 120 mm. of water, and by poisoning the animal with carbonic acid gas, one of more than 175 mm. of water. In addition to this, we have Fraser's careful clinical work with the nitrites, whose effect in this disease in some instances is very great. If it were due to dilatation and not to spasm this could not be the case. There is no doubt that the disease is often reflexly excited; yet, as stated above, in the present state of our knowledge we cannot say what it is that produces the conditions in the system making these attacks follow on excitants that do not even inconvenience individuals not so liable. As regards medicinal treatment it may be reduced first to inhalations of burning stramonium leaves, either loose or in the form of cigarettes; internally, nitrite of sodium 2 to 5 grain doses. Stewart & Gibson (Twentieth Century Practice) recommend

℞ Potass iodide..... ℥ ij.
Ammonia carbonate .... ℥ i.
Aquæ, qs .....ad ℥ iii

Sig.—A drachm in water three times a day, or more frequently as may be required.

They say of it that it never acts so rapidly as some other remedies, but it does so within an hour or so, and when it does act its good influence is more prolonged. It is of service in many cases during the paroxysms, still more frequently is it useful when attack threatens or when a degree of bronchitis lingers between the attacks. Under the former conditions it is well to give a dose every hour, under the latter three times a day.

There is one infallible remedy for the asthmatic paroxysm, but it is one that must be kept absolutely under the control of the physician and used with the greatest discretion and supervision in order that no habit may be induced. We refer to hypodermic injections of morphine.

THE ABSORPTION AND ELIMINATION OF DRUGS.

Dr. Hobart A. Hare, in the *Therapeutic Gazette* for September, has a very practical article on this subject in reference to many of the most commonly used drugs. To briefly summarize his conclusions, we will take first digitalis. This is very slowly eliminated, and its outward effects are often so strikingly manifested for the reason that while it has accumulated in the system, some change in the position of the patient may suddenly develop its action. Of the mineral drugs which are rapidly absorbed and eliminated, we have first, iodide of potassium. This has been found in the saliva five minutes after administration, and it is estimated that 80 per cent. of the dose is eliminated in the first twenty-four hours. It escapes as iodide of sodium, leaving the potassium in the system, as has been illustrated by Issersohn with another iodine compound iodide of potassium is a strong depressant, and iodide of sodium should always be administered in preference to the potassium salt. Part of the iodine unites with the albumens to form soluble albuminoid compounds, and is thus delayed in the body. Therefore, to obtain the best effects the iodine should be pushed to the maximum dose and then cut down to the point of replacing the eliminated albuminoid compounds, or what is known to syp-

hilographers as the "tonic dose." With bromide of potassium much careful work has been done on absorption and elimination. It is absorbed rapidly and exceedingly slowly eliminated. A fair percentage, about 75 per cent., is eliminated in the first forty-eight hours, but the balance remains longer in the system than most remedies. The same rule holds here as with the iodides, that once the effects are produced the dose should be cut down as low as compatible with continuous effect. This is the practice of the best neurologists, full doses for one week, and then only sufficient to preserve the effects. With mercury the action is different for the different forms, but it is possibly the most persistent of all remedies. The best way to look at it is from the work of Balzer and Klumfe, who find that the maximum possible elimination of the kidneys for many weeks from a body saturated with the drug is only one sixteenth of a grain in the twenty-four hours, so that the practice of the best syphilographers of giving small doses, just sufficient to produce results with occasional administration of iodides to assist elimination, cannot be too highly commended.

Antipyrin, according to Reihen, is rapidly absorbed, fifteen to twenty minutes, but elimination continues from thirty-three to fifty-six hours after the last dose. Acetanilide, according to Kumagana, is absorbed in half an hour and eliminated in twenty-four hours. Atropine, belladonna, aconite are absorbed very rapidly and eliminated or destroyed for the first two. Hare states elimination is completed in two hours. Therefore, small doses and great frequency are best here. Arsenious acid only commences to be eliminated after fourteen hours, and continues for over sixty, and should therefore only be given at long intervals rather than many doses each day.

ON THE NUTRITIVE VALUE OF DIFFERENT PEPTONES.

As regards assimilation, Denayer (*Rau. Pharm.*) classes the different peptones in the following order:

1st. Peptones obtained by the action of steam on finely chopped meat.

2nd. Peptones produced by digesting meat with pepsin and tartaric acid; and finally:

3rd. Peptones obtained by the action of hydrochloric acid on meat.

The result of his researches show that the last named are the most beneficial from a physiological standpoint, since they contain 60 to 70 per cent. of true peptone. The peptones of the second class contain 35 per cent. of true peptone associated with the acid amides resulting from action of the tartaric acid, and the peptones by the first process contain chiefly syntonin, which, while stimulating digestion, is not in a condition to be readily assimilated.

SALICYLATE OF SODA AND NURSING.

Dr. S. Remy in *Rev. Med. del. Est.*, June, 1897, gives an interesting case which came under his observance. A girl confined at the "Maternite de Nancy" was attacked with rheumatism, which apparently was due to cold, a window having been left open and thus exposing the patient. He administered two grams of sodium salicylate a day, during which time she continued to give the child the breast. It did not complain and increased in weight. The nurse noticed that the woman lost blood since she commenced the salicylate. She combated these losses by hot injections. The pain being little influenced by

the first dose, the salicylate was increased to three grams. The shoulder improved and the flow diminished. In spite of the daily use of the salicylate, the child prospered well at the breast; the flow, before strong, stopped. At one time a loss of 20 grams was ascertained, at the next weighing the child had gained 80 grams. The shoulder cured, treatment was stopped. The child weighed, the same as the other children, every two or three days, showed the following weights:

2750 grams	3360 grams
2970 "	3400 "
3000 "	3530 "
3110 "	3610 "
3300 "	3300 "
3270 "	

The child, therefore, did not appear to suffer from the action of the salicylate as it certainly improved, gaining 880 grams at the Maternite. It would be interesting to know if any part of the medicine was eliminated by the breast, as this might account for the child not appearing to be inconvenienced.

THE DANGERS OF CHLORATE OF POTASSIUM.

The *Therapeutic Gazette* in its issue for September speaks editorially in this connection, and says we have reason to believe that many physicians continue to employ it largely in their practice as a matter of routine, because unaware of its deleterious influences. As time goes on medical literature will contain more and more cases, which are really due to the poisonous effects of this drug which were formerly assigned to other causes. As a matter of fact, chlorate of potassium is, next to cyanide of potassium, one of the most poisonous of the potassium salts. The editor then mentioned a recent case from Vienna, where a boy, given a gargle of this substance by mistake, swallowed a considerable quantity and death speedily resulted, the inquest showing all the usual signs of death from this drug. We have ourselves had unpleasant experiences with it. We call to mind one case particularly, that of a lady not presenting idiosyncrasy as a rule to drugs, but in whom a three-grain tablet produced muscular relaxation to such an extent that she was confined to her couch for a day.

THE PRESCRIPTION.

IT has, in the past, been the custom for the physician after diagnosing a patient's case to write out a prescription calling for certain remedies, these presumably of the best, to be compounded in the most approved manner known to pharmaceutical science. The patient usually receives no direction as to where the prescription is to be taken; or, if directed, imputes commercial reasons for the doctor's choice and goes elsewhere. The patient in this case injures, not only the physician, but himself. This injury to the physician cannot be estimated if, as is too often the case, he has not received drugs of the standard the physician intended, and does not improve, he goes about blaming the physician, never blaming himself, or, more correctly, the scoundrel who, false to every oath of his profession, has substituted some cheap imitation of a standard remedy. It may be said that too much is supposed in the matter of substitution. Every druggist denies it and swears he keeps but the best. This may do to tell some one who has not the slightest knowledge of the drug trade, and who is not aware that large firms are engaged in manufacturing articles to be used as substitutes for preparations which have established a reputation. The supply follows the demand. Many will say this applies only to the United States, and is not applicable to Canada.

In Canada we unfortunately have too many druggists who are willing to substitute. Some may do it from

honest motives believing that they are benefiting their patron, but undoubtedly the most of it is done on account of the departmental stores.

We have previously expressed our opinion (not at all flattering) on department store pharmacy, but all the department stores on earth are not sufficient reason for departure from every principle of the ethics of medicine and pharmacy. These men are not seeking to benefit the health of the people; they are not waging an educative war on patent medicines; they are not advising the public not to buy patent medicines. They only insist that the profits on a patent medicine, for which a public demand has been created, shall go to them and not to the man whose energy, business ability and money has been spent in creating the sales

You ask what have we to do with the patent medicine business? We answer, everything. The man who will, for the sake of gain or spite, substitue the medicine the poor man pays for has not the moral stamina upon which you can risk your reputation.

EDITORIAL NOTES.

THE paper by Dr. Hamilton in this issue, on the "Relation of the Physician to the State," is one that should receive the careful consideration of every physician.

THE paper on "Climate" in this issue, by Dr. Ames, now of Denver, formerly of Sarnia, was read for him at the last meeting of the Lambton County Medical Association, and by them requested to be published in the DOMINION MEDICAL MONTHLY. It is of special interest as Dr. Ames was himself affected.

EFFERVESCENT SALTS.— There are a great number of these preparations on the market, and there is no doubt about the advantages possessed by these saline purgatives for general use: but, as in everything else, the physician must be perfectly satisfied not only that the material shall be of the best, but the standard of the preparation shall be kept up. This being the case, we have no hesitation in recommending the profession that when they want a reliable, pleasant and effective preparation, to prescribe "Abbey's."

VIN MARIANI.—We have received some inquiries in reference to this preparation, arising, no doubt, from the widely spread notice it received at the recent case in the courts. We can only say that it is a preparation that has been long and extensively used with the best results. The statements of the medical gentlemen who testified under oath to its virtues in the recent trial are sufficient endorsement of its merit. The Judge very properly ruled that it was a truly medicinal preparation. It is too bad that the Company should have been put to the expense of the trial by the officiousness of ignorant liquor inspectors.

"PAUL PAQUIN LABORATORIES."—We are in receipt of a newspaper clipping which appears to have been sent the rounds of the medical press, in which a former employee of this institution, attacks the laboratory. In regard to the statement in the same newspaper clipping that there was not a properly equipped bacteriological laboratory in connection with Dr. Paquin's establishment, we may say, in justice to Dr. Paquin, that he himself spent over a year under Pasteur in Paris, and that we have had personally the pleasure of inspecting his laboratory, which is under the charge of his brother, Dr. Felix Paquin, and is thoroughly well equipped, Dr. Felix Paquin himself being an earnest student. Aside from the value of the serum treatment whatever, there is no doubt that the newspaper clipping we received was intentionally malicious. It is a matter of common experience, to revive an old statement, that there are three classes of liars; liars, —— liars, and discharged employees.

The Physician's Library.

Reference Book of Practical Therapeutics by various Authors. Edited by FRANK P. FOSTER, M.A., Editor of *New York Medical Journal* and of Foster's Encyclopædia Medical Dictionary. In two volumes. New York: Appleton & Co. Toronto: George A. Morang. Price, cloth, $12 00; half morocco, $14.00.

To those who are acquainted with the previous works of Mr. Foster these volumes will need no recommendation. His careful and thorough work is well-known. To Canadians, especially, we may say that these volumes rank with those English classics, Heath's Dictionary of Practical Surgery and Quain's Dictionary of Medicine. As the author says in his preface, "The Therapeutic nihilism" that, but a few years ago, was justly deplored by Professor Bartholow has been succeeded by a wave of over activity, for which it is not difficult to account. We have now to master the task of judiciously employing remedial agencies, many of which are new: for this purpose we require the frequent appearance of *trustworthy records* (italics ours) of what has been accomplished with these novel agents, for in no other way can the individual practitioner keep pace with the progress of therapeutics. He who presents to the medical profession books purporting, as this one does, to contain only such positive statements about remedial agents as rest upon what seems to be substantial basis—he who does that undertakes a work of no little responsibility. In the present instance the editor has been favored with the collaboration of a number of writers whose teachings are known and respected." There has been a very careful selection of the subject matter, the list of remedies being confined to those of practical value. Rare drugs, native remedies of distant countries and the host of new and untried analgesics have been weeded out. The subject matter is arranged under diseases as well as drugs. Under the head of each disease are found a list of remedies, with careful abstract of the reports in each by the best authorities, and best methods of combination under the remedy is likewise a digest of the various uses, singly and in combination, with authorities cited. In addition there is a complete index to the whole, one can scarcely conceive a more complete work. The author is certainly to be congratulated on the success attending his efforts. A physician with this work and Brunton's Action of Medicines can enter the year 1898 feeling that there is absolutely nothing of value in therapeutics that is not his to command.

Twentieth Century Practice. An International Encyclopedia of Modern Medical Science by leading authorities of Europe and America. Edited by THOMAS L. STEDMAN, M.D., New York City. In twenty volumes. Vol. IX., Diseases of the Digestive Organs. New York: William Wood & Co. 1897.

The list of contributors gives a fair idea of the worth of this volume It includes the names of Ewald, Franks, Gibney, Gioffredi, Kümmel, Mikulicz, Murphy, Semmola, Stengel and Walker. The list of subjects embraces "Local Diseases of the Mouth," "Diseases of the Intestines," "Hernia," "Diseases of the Spleen," "Diseases of the Liver," "Diseases of the Gall Bladder," and "Movable Kidney." Mikulicz and Kümmel are already known as authorities upon mouth diseases, and they have conjointly produced a very readable monograph whose interest is increased by the illustrations. Carl Ewald's chapter on intestinal diseases does not include those associated with the various infectious processes, nor those due to parasites, these as well as hernia having received consideration in another portion of the work. Ewald's

words carry weight in this special branch, and the chapter is written in the author's characteristically impressive style. Mariano Semmola and Carlo Gioffredi have combined their efforts in the production of the chapter on diseases of the liver, which covers three hundred and thirty pages, and includes all the biliary and hepatic affections not elsewhere discussed. Dr. John B. Murphy, of Chicago, follows with an excellent chapter on the gall bladder, which is in a manner supplementary. Echinococcus of the liver was included, if we mistake not, in a chapter on hydatid disease in a preceding volume, but as the present one is short no great harm will be done, we being able to compare the views of two different authors whose observations have been made in different geographical quarters. The concluding chapter of this very interesting volume is on "Movable Kidney," by the pen of Kendal Franks, of Johannesburg, S.A. Republic, formerly of Dublin, and well known for his excellent work in this obscure subject. The manner in which the author has condensed the present stock of available information concerning movable kidney amply justifies his selection by the editor.

The Action of Medicines. Being the course of lectures on Pharmacology and Therapeutics, delivered at St. Bartholomew's Hospital during the summer session of 1896. By T. LAUDER BRUNTON. London: Macmillan & Co., Limited. New York: The Macmillan Co. Toronto: Copp, Clark & Co. Cloth, $3.50.

The fact that the first edition of this work was printed in June, 1897, and reprinted in August, 1897, is sufficient indication of its reception by the profession. The work naturally contains much of the matter in his celebrated Text-book of Pharmacology, Therapeutics and Materia Medica, and also his Croonian Lectures. This work was prepared from short-hand reports of Dr. Brunton's lectures. As he says in the preface, he endeavored to give his pupils a thorough grasp of the subject, and not give them more in each lecture than they could thoroughly digest, after the manner of Solon's laws to the Athenians. Being asked "Are those the best laws you can frame?" "No," replied Solon, "but they are the best laws the Athenians can keep." While appreciating the principle laid down we are by no means inclined to share the author's modest views of the contents of his work. He stands to-day the acknowledged chief therapeutist of the world. His lectures deal almost altogether with galenical preparations, and are not loaded down, as many are to-day, with German synthetic remedies. It cannot be too strongly impressed upon students and many practitioners of the present time that they are much safer in using remedies whose action has been carefully watched at the bedside, by thousands of the fathers of medicine, for generations, rather than taking the *ipse dixit* of some graduating thesis on the action of the product of some German dye works. For this reason Brunton's Action of Medicines is most acceptable, grouping them according to their physiological action, and indicating their benefit in proper pathological conditions. We cannot too strongly impress upon the profession that they are behind the times if they have not got this able work.

Miscelaneous.

ACETYLENE AS A QUANTITATIVE REAGENT.—Acetylene may be employed for the determination of copper. The salt to be analysed is dissolved in 100 to 200 times its volume of water mixed with a few cubic centimetres of ammonia and heated for a short time on the water bath.

Acetylene is then introduced into the dark blue fluid to saturation. The precipitate is complete even in the cold, but it takes place more quickly, and is better aggregated on warming, while at ordinary temperatures a portion often adheres obstinately to the sides of the vessel. In a closed flask the precipitate can be preserved for any length of time without decomposition; in an open vessel a part of the precipitate is again dissolved as long as the fluid remains alkaline. The copper acetylide is now collected, washed, and decomposed by being digested for half an hour with hot diluted nitric acid, filtered from the carbonaceous residue and the filtrate evaporated to dryness and ignited. The ash of the filter and residue is also taken and the whole weighed as CuO. The separate ignition of filtrate and insoluble residue is advisable to prevent explosion. A too large excess of acid must be avoided. The acid contained in the original copper salt can easily be detected in the filtrate from the acetylene precipitate. For the separation of zinc and copper, as salts of the former metal are not decomposed by acetylene, the method is most useful. In the presence of excess of sulphurous acid the whole of the copper is precipitated by acetylene in a mixture of a solution of salts of the two metals. In an experiment with a known quantity of zinc, it was found that none was carried down by the copper acetylide precipitate.—*Pharm. Centralh.*, xxxviii., 426.

MOUNTING CHARA.—A. Flatters finds that the fruit of chara makes a good slide when mounted in glycerin jelly. After cleaning he places it in ninety-two per cent. alcohol for several hours, then transfers into a mixture of equal parts of spirit and glycerin for several hours longer, after which he pours off nearly all of the mixture and adds pure glycerin at intervals till the glycerin becomes concentrated. Finally the object is mounted in glycerin jelly in a cavity slip just deep enough to take it without pressure. A second method is to mount in balsam, as follows:—After cleaning, graduate through twenty-five per cent., fifty per cent. to ninety-two per cent. alcohol and allow to stand in the last strength for several hours. Take a tube and put in it oil of cloves. On the top of the oil pour a little absolute alcohol. Immerse the specimen gently in the alcohol and allow it to sink to the bottom of the tube. When clear, mount in balsam and benzole. If transferred direct from the spirit into oil of cloves, objects will shrivel and be spoiled, hence the necessity of the graduating method. To see the antheridia properly, sections should be made.—*Science Gossip*, iv., 88.

PICRIC ACID IN ECZEMA.—Gaucher (*Sem. Med.*, May) has had very good results in acute vesicular eczema using picric acid. He applies a one per cent. solution every other day, and covers the surface with cotton wool soaked in this solution. The dressing is left in place for two days. The acute inflammation subsides rapidly, and itching is relieved. This treatment would probably be useful in other acute skin diseases such as pemphigus, but is useless in chronic eczema.—*Brit. Med. Jour.*

VERATRUM VIRIDE IN PUERPERAL CONVULSIONS.—W. H. Thayer (*Boston Med. and Surg. Journ.*) speaks highly of veratrum viride both in puerperal convulsions and in the convulsions of children. He gives it in full doses—one drachm of the tincture. It was first used in this way by Fearn, of Brooklyn, in 1869, and has since been steadily, if slowly, gaining favor. It reduces the high rate of the pulse to sixty or under without any depression, for the strength of the beat is maintained.—*Brit. Med. Jour*

TRINITY NOTES.

I AM very glad to meet you.
—DEAN GEIKIE.

It reminds me of long ago!
—DR. LUNDY.

THE opening lecture by Rev. Mr. McCaughan was a treat.
—OMNES.

DR. LUNDY, sen., of ———, paid a visit to Trinity Medical College, and occupied a chair beside Dean Geikie at the opening lecture in medicine. He took advantage of the opportunity given and addressed the final class in a few well chosen words.

DEAN GEIKIE, in his opening lecture, discussed the question, "What makes a good doctor?" in his usual terse, strong style.

"IT will be my aim, gentlemen, during the session upon which we have entered, to take the usually dry subject of anatomy and make it palatable by a gilding of surgery."
—DR. BINGHAM.

DR. GRASETT received a hearty welcome from the final men as he appeared in the doorway. In answer to repeated calls for a speech, he gave the boys some excellent advice, which was appreciated. "Medical students must have the highest ideal beckoning them on in the work. Countenance *no principle but the highest.* Leaving the realm of mere bread and butter workers, build on a foundation that will stand any test—above all the test of the public needs and individual conscience." Referring to the auspicious year, the Jubilee year, he further mentioned the great advantage accruing from several of the magnificent gatherings held in the

city during the past summer. Two deserved special notice, viz.: The British Medical Association and the Scientific Association. They threw much light on some subjects and acted as a stimulus, rousing the profession to a more accurate research, and making more alive on vital questions. It brought men out to discussions who are seldom seen there. Among the laity it has tended to create a public confidence in favor of the medical profession to a degree that did not exist before. The Scientific Association has lifted Canada in the estimation of the students of the Old Land. We, too, have our seat of learning, our facilities for original research. We, too, turn out a class of men who will stand a favorable criticism when measured by the academic rule of a more venerable and historic land.

A MEETING was held on Monday, October 11th, for the purpose of organizing a Football Club. A strong team was chosen, which has entered the Inter-College League. The club begins the year with bright prospects. Mr. Purvis, '98, was elected captain.

THE Baseball team is also in good shape. Immediately after the football meeting a committee was elected to arrange for the annual match with Toronto medicals. Regular practice has already begun. The team to begin with is strong and expects to do good work this fall. Mr. Doherty, '98, was elected captain of the team.

TRINITY'S annual scrap took place on Tuesday afternoon, October 12th. This relic of barbarism has become time-honored, and every student, from the freshest "freshie" up to the most dignified final, becomes a devotee at its shrine. Of course the hurdygurdy was there, three in number, each with its Italian performer. When these impecunious sons of Italy be-

that in a large number of cases of syphilis apparently contracted in shaving, a wound has been subsequently inoculated by kissing. The last group of unmerited syphilis may be divided into that conveyed (1) by direct personal contact; (2) by indirect means; (3) by and to medical men in their professional work. In the first group are included cases in which syphilis is conveyed from one child to another or from a child to an adult. Here kissing is the most important cause, but syphilis due to suckling also falls under this heading. Many objects may be the means of indirectly conveying syphilis, such as those used for eating and drinking purposes. On the tonsil it is not necessary to have a breach of surface for the infection to take place. In the third subgroup the medical man may be the means of conveying the disease, as in various operations, as by inoculation and injection, by catheterisation of the Eustachian tube, by the use of caustics, etc. Medical men or nurses may contract the disease themselves as in syphilis technica. There are other cases in which the cause of the infection cannot be ascertained. The diagnosis in unmerited syphilis may be very difficult; in the author's opinion the extragenital primary lesion is in the majority of cases overlooked. Again, the non-recognition of the disease may lead to its further transference. Patients with ordinary syphilis mostly know the disease and are more or less careful not to convey it to others. Of course the disease is originally derived from an ordinary case, but unmerited syphilis may under conditions lose the character of a disease of the generative organs. Notwithstanding that the number of cases of syphilis contracted in the ordinary way far exceed those of unmerited syphilis, yet something can be accom-

Recitation, H. Proctor. Solo, Selected, Mr. Newsome. Speeches, Mr. Ross, Representative from College of Pharmacy; Mr. Keith, Representative of Toronto Medical College; Jas. Hogg, President Medical Society. Trinity. Solo, "The Admiral's Broom," Fred Walker. Piano solo, "Attention," Professor Ed. Hards, Mus. Bac., Trinity. God Save the Queen.

The best feeling possible was maintained throughout all, though clothes were torn in shreds, and tempers remained intact. At the close of the proceedings a collection was taken up to defray expenses.

SANMETTO IN GONORRHEA.—A bottle of Sanmetto enabled me to discharge the patient I was treating, entirely cured. Since then I have had a crop of cases of gonorrhea, such as often explodes in our midst in the form of an epidemic. In the chronic form of gonorrhea, ending in chronic cystitis and urethritis, involving the prostate gland and lymphatics, with backache, malaise and painful micturition, I think I can say with impartiality that I know of no medicine conserving the purpose of bridging over these troubles like Sanmetto; and I know of no class of troubles which annoy physicians more. In all such cases I would say, put the patients on Sanmetto, and if they do not improve, I will give it up. Sanmetto is invaluable in such cases. J. C. ROBERTS, M.D., Pulaski, Tenn.

IN nutrine wine of beef peptone the physician finds the ideal predigested food. Each pint of the preparation contains the entire digestible substance of one compound of fresh, lean beef. It is especially serviceable in typhoid fever, and in all diseases where nutrition must be supplied without taxing the digestive organs.

AT CHILDREN'S HOSPITAL.

THE fees at the Children's Hospital have been reduced this session, much to the satisfaction of all, as the impression existed that the old rates were a little out of proportion with benefit derived. Perpetual ticket can be had for five dollars, a ticket for the year only costing three dollars.

AN interesting case of trephining of the skull occurred at the Children's Hospital on Tuesday, October 12th. The case was that of a boy, aged 14 years, whose head was injured by a cow horn five years ago. As a result of injury to motor area, he suffered from convulsions, attacks occurring two or three times a day for the past five years. The attacks were preceeded by twitching of side of face, extending to fingers of right hand, and then to the right leg. A large opening was made, revealing considerable internal pressure. The operation was performed by Drs. Bingham and Powell.

A RELIABLE FOOD.—Messrs. John Carle & Sons, New York City.—Gentlemen,—I have received the "Nursing World Clinical Records" and samples of your Imperial Granum, although it was unnecessary to send the latter to acquaint me with its value, as we have a living example in our only son of the worth of Imperial Granum, and I have prescribed it constantly for eleven years, and always with the very best results.

Yours very truly,

—— ——— M.D.

Sept. 2nd, 1897.

Clinical Records and samples of this celebrated food free, charges prepaid, on application to John Carle & Sons, 153 Water Street, New York City.

STYRA-PHENOL

A New Non-Secret Antiseptic Dressing

℞ Balsam Peruferum	6 Drachms
Balsam Tolutanum	5 "
Benzoin	½ "
Styrax	1 Scruple
Olibanum	1 "
Colophony	9 Ounces
Phenol	3 "

The formula here given you for **Styra-Phenol** is a rational departure from the usual composition of ointments, and seems to possess certain desirable properties to which I would particularly invite your investigation:

1st. It is absolutely free from oil or grease in any form.

2nd. It destroys pathogenic germs, retains its proportions unaltered, losing nothing of its germicidal qualities, and remains in contact (usually until new epithelial growth takes place), ensures against entrance of fresh germs after wound is dressed; and so does away with the frequent dressings now deemed essential.

3rd. It has immediate anodynous effect, when applied to burns, inflamed ulcers, suppurating sores or wounds; and by aiding in the repair of any injury, it reduces inflammation rapidly.

4th. Recognizing the value of Anti-Microbic-dry-dressings over others, **Styra-Phenol** is practically a dry dressing, and remains as such.

5th. It has none of the hazards of strong solutions, or ointments, and can be used with absolute safety under all conditions.

6th When moderately heated over a spirit lamp, its vapors, when mingled with air and inhaled, combine both antiseptic and sedative treatment for the lungs and air passages, and exert a most beneficial effect on the mucous membrane.

7th. Its styptic properties prevent blood clot intervening between the dressing and tissue.

This compound can be had from Messrs. Evans & Sons, Wholesale Chemists, Montreal, under above name, or it may be prescribed in usual manner as per formula.

Arrangements are being made to supply English and United States Chemists with the preparation

HENRY IEVERS

August, 1897 ..... **Quebec, Canada**

TORONTO NOTES.

THE opening lecture of the Toronto Medical School was delivered in the lecture theatre of the biological department last evening. The building was quite insufficient to accommodate the large number of medicos in embryo who flocked to it and blocked the aisles and corridors leading to the theatre. There were a large number of young ladies in the audience, and they appeared to enjoy the lecture and speeches as much as the students. Among the audience were also a number of professors of the Arts faculty of Toronto. The chair was occupied by President Loudon, who was supported by Hon. Edward Blake, chancellor of Toronto University; Dr. R. A. Reeve, dean of the medical faculty, and all the professors. The entrance of the faculty was the signal for loud and enthusiastic applause. At a later stage of the proceedings Vice-Chancellor Hon. Wm. Mulock arrived and was also received with applause.

The opening lecture by Prof. I. H. Cameron was a scholarly address, in which touching reference was made to the loss the faculty has sustained by the death of the late Dr. W. T. Aikins, first dean of the faculty and professor of surgery.

Dr. Reeve, dean of the faculty, was received with three cheers. He congratulated Dr. Cameron upon the scholarly address he had delivered, and quoted with pride the reference made by Dr. Roddick, M.P., president of the British Medical Association, in his address at Montreal to the large number of teachers in the Toronto School of Medicine. He referred to the excellence of the laboratories, especially the chemical, and the honor which was conferred upon Toronto by the request that Dr. Primrose would prepare a dupli-

cate photographic set, such as used in the study of anatomy here, for use in the British Institution. He personally thanked the students of last year for accepting the hint and not indulging in the practice of hazing, and conveyed a hint that he hoped the students of this year would follow the good example. He recalled the benefactions received in years gone by from the friends of the school, and announced a donation to the University of Toronto, to be applied to the medical department, of $1,000, which is to be divided, if the president's intention is not modified, into four annual instalments of $250, to be presented as an honorarium to the student who takes the highest stand in all the subjects at the end of the fourth year medical course, the winner of the prize being required to pursue work in one or the other of the laboratories of the University under the direction of the professors for the fifth year. He trusted that this will in some slight degree aid in solving the problem that is pressing upon not alone the medical faculty of the University—a lack of funds.

ATHLETICS have not as yet assumed any definite shape. Efforts are being made to get the various teams in playing trim.

THE Alley Board has become very popular, and all thanks to Dean Reeve for supplying such a splendid means of recreation.

THE students were very sorry to hear that Prof. John Caven's severe illness has made it necessary for him to take a prolonged holiday. During his absence his work is ably carried on by Dr. J. Amyot.

MULFORD'S diphtheria antitoxin is supplied in previously sterilized glass-stoppered bottles, secured with special seal. The advantages of this are manifold. There is no loss from breakage, since the bottles are extra-

annealed. The contents can be easily drawn into the antitoxin syringe. The unbroken seal always shows that the bottle has not been opened, and that it is, therefore, still hermetically sealed. When it is desirable to inject part of the contents of a bottle as a second dose, after several hours, the glass stopper need only be securely replaced. In addition to all these, the bottle will stand upright when the syringe is being filled. Mulford's antitoxin was found pure and up to a high antitoxic standard in all the comparative tests of antitoxin thus far made of antitoxins.

EKA IODOFORM. — In order to render iodoform antiseptic, a preparation is made by Messrs. Schering in which that deficiency is remedied by an addition of paraformaldehyde, and Dr. A. Gottstein reports favorably on its effects as a dressing for wounds.—*Therapeut. Monatshoft*, 1897, 381.

GENERAL NOTES.

ON Saturday night, October 9th, at the Central Y. M. C. A., the freshmen of the three medical schools were tendered a reception by the members of the Y. M. C. A. of the Woman's Medical, Toronto Medical and Trinity Medical, respectively. The first year students from the Woman's Medical were distinguished by a pink rose, the Trinity men by a red carnation while the Toronto Meds wore a white carnation. This feature made it a very easy matter to recognize the students of the various schools. The hostesses—Mrs. McPhederan, Mrs. Fotheringham and Mrs. Nevitt—received the guests in a very charming manner. After some little time spent in social intercourse, E. H. B. Anderson called the assembly to order, and a very excellent programme was rendered. Speeches from the Dean of each school were most

interesting. Owing to Dean Reeve's absence Dr. McPhederan spoke on behalf of Toronto School. Miss Torrington and Mr. A. L. E. Daves were the soloists of the evening; both delighted the guests and received well-merited encores. Miss Madge Brown, M.E., recited in her own charming way, and was enthusiastically received. A violin solo by Mr. Wagner elicited well-deserved applause. Altogether the evening was very enjoyable, and voted to be one of the most successful of the kind yet held. Dr. Anderson made an admirable chairman, and performed his duties very gracefully. The parlor was tastefully decorated with flowers and palms. The proceedings, which wereenlivened by orchestral music, were brought to a close by "God Save the Queen."

CAROUBINOSE, A NEW SUGAR.—The sugar, caroubinose, produced by the hydrolysis of caroubin by dilute acids is a syrupy, non-crystalline body, soluble in water and in alcohol, having the formula $C_6H_{12}O_6$. When treated with phenyl-hydrazine two ozazones are obtained. The one, crystallising in prisms, which are insoluble in boiling absolute alcohol, caroubophenyl-hydrazone, $C_{12}H_{18}N_2O_5$, melts without decomposition at 183° C. The other, crystalising in needles, has the composition $C_{18}H_{22}N_2O_4$, and melts at 198° C.—*Comptes rendus*, CXXV.
