

Technical and Bibliographic Notes / Notes techniques et bibliographiques

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

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

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

- Coloured pages / Pages de couleur
- Pages damaged / Pages endommagées
- Pages restored and/or laminated /
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées
- Pages detached / Pages détachées
- Showthrough / Transparence
- Quality of print varies /
Qualité inégale de l'impression
- Includes supplementary materials /
Comprend du matériel supplémentaire
- Blank leaves added during restorations may
appear within the text. Whenever possible, these
have been omitted from scanning / Il se peut que
certaines pages blanches ajoutées lors d'une
restauration apparaissent dans le texte, mais,
lorsque cela était possible, ces pages n'ont pas
été numérisées.

THE
CANADIAN JOURNAL
OF
MEDICINE AND SURGERY

A JOURNAL PUBLISHED MONTHLY IN THE INTEREST OF
MEDICINE AND SURGERY

J. J. CASSIDY, M.D., EDITOR.

VOL. VIII.
JULY TO DECEMBER, 1900

BUSINESS MANAGER
W. A. YOUNG, M.D., L.R.G.P.LOND.
145 COLLEGE ST., TORONTO, CAN.

1900

INDEX TO VOLUME VIII.

Book Reviews.		PAGE
A Book of Detachable Diet Lists. By Jerome B. Thomas, Jun., A.B., M.D.	357	Bacteriology and Surgical Technique for Nurses. By Emily M. A. Stoney. 366
A Double Thread. By Ellen Thorneycroft Fowler	138	Cancer of the Uterus: Its Pathology, Symptomatology, Diagnosis and Treatment. By Thos. Stephen Cullen, M.B. 278
A Hand-book for Nurses. By I. K. Watson, M.D.	67	Clinical Examination of the Urine and Urinary Diagnosis. By J. Bergen Orden, M.D. 280
A Hand-book of the Diseases of the Eye and their Treatment. By Henry R. Swanzy, A.M., M.B., F.R.C.S.I.	282	Coplin Manual of Pathology. By W. M. Late Coplin, M.D. 206
A Manual of Personal Hygiene. Edited by Walter L. Pyle, A.M., M.D.	270	Deaver. By John B. Deaver, M.D. 136
A Manual of Medicine. By W. H. Allechia, M.D.	137	Diseases of the Chest, Throat and Nasal Cavities. By E. Fletcher Ingals, A.M., M.D. 203
A Manual of Surgical Treatment. By W. Watson Cheyne, M.B., F.R.C.S.	205, 281	Diseases of the Intestines. By Max Einhorn, M.D. 185
A Manual of Syphilis and the Venereal Diseases. By James Nevins Hyde, A.M., M.D., and Frank Hugh Montgomery, M.D.	358	Dr. North and His Friends. By S. Weir Mitchell, M.D. (Harv. and Edin.) 428
An American Text-book of Physiology. Edited by Wm. H. Howell, Ph.D., M.D.	357	Essentials of Histology. By Louis Leroy, B.S., M.D. 434
A Practical Treatise on Medical Diagnosis for Students and Physicians. By John H. Musser, M.D.	424	Fractures. By Carl Beck, M.D. 204
A Reference Hand-book of the Medical Sciences. By Albert H. Buck, M.D., New York City.	422	Golden Rules of Medical Practice. By Arthur Henry Evans, M.D. 68
A Systematic Treatise on Materia Medica and Therapeutics. By Finley Ellingwood, M.D.	205	Hernia: Its Etiology, Symptoms and Treatment. By W. McAdam Eccles, M.S. (Lond.), F.R.C.S. (Eng.) 354
A Text-book of the Diseases of Women. By Henry J. Garrigues, A.M., M.D.	355	Hilda Wade. By Grant Allen. 200
A Text-book of the Medical Treatment of Diseases and Symptoms. By Nestor Tirard, M.D.	66	Imperative Surgery for the General Practitioner, the Specialist and the Recent Graduate. By Howard Lillenthal, M.D. 270
A Text-book of Pathology. By Alfred Stengel, M.D.	420	Lessons in Hypnosis and the Use of Suggestion Based upon the Neuron Motility Hypothesis. By Leslie J. Meacham. 283
A Text-book of Practical Therapeutics. By Hobart Amory Hare, M.D., B.Sc.	65	London to Ladysmith via Pretoria. By Winston Spencer Churchill 208
A Text-book of the Practice of Medicine. By James M. Anders, M.D., Ph.D., LL.D.	425	Manual of the Diseases of the Eye for Students and General Practitioners. By Charles H. May, M.D. 282
A Treatise on Diseases of the Nose and Throat. By Ernest L. Shurly, M.D.	355	Medical Electricity. By H. Lewis Jones, M.A., M.D. 207
A Treatise on Mental Diseases. By Henry J. Berkley, M.D.	358	Modern Medicine. By Julius L. Salinger, M.D., and Frederick J. Kaltefleiter, M.D. 427
Atlas and Epitome of Diseases Caused by Accidents. By Dr. Ed. Golebiewski	280	Modern Surgery, General and Operative. By John Chalmers DaCosta, M.D. 423
Atlas and Epitome of Gynecology. By Dr. Oskar Schaeffer	282	Notes on the Modern Treatment of Fractures. By John B. Roberts, A.M., M.D. 420
Atlas and Epitome of Special Pathologic Histology. By Docent Dr. Hermann Durck	266	Operative and Practical Surgery. By Thos. Carwardine, M.S. (Lond.), F.R.C.S. 207
		Original Contributions Concerning the Glandular Structures appertaining to the Human Eye and its Appendages. By Adolf Alt, M.D. 209

PAGE	PAGE
Osteopathic Treatment in the Hypnotic State; or, Suggestion Massage the Cure for Incurables. By Prof. Thomas Bassett Keyes, M.D.	203
Physical Diagnosis of Diseases of the Chest. By Richard C. Cabot, M.D.	433
Post-mortem Examinations, Methods and Technique. By John Caven, B.A., M.D.	137
Practical Gynecology. By Heywood Smith, M.A., M.D.	68
Practical Gynecology. By E. E. Montgomery, M.D.	426
Practical Ureanalysis and Urinary Diagnosis. By Charles W. Purdy, LL.D., M.D.	430
Rhinology, Laryngology and Otolary, and their Significance in General Medicine. By E. P. Friedrich, M.D. Edited by H. Halbrook Curtis, M.D.	428
Sajous' Annual and Analytical Cyclopedia of Practical Medicine.	136
Saunders' Pocket Medical Formulary. By Wm. M. Powell, M.D.	434
Saunders' Question Compendis, No. 17. By Solomon Solis-Cohen, M.D.	67
Surgical Anatomy. By John B. Deaver, M.D.	358
The American Illustrated Medical Dictionary. By W. A. Newman Dorland, A.M., M.D.	427
The Care of the Child in Health. By Nathan Oppenheim.	207
The Essentials of Hematology.	67
The Garden of Eden. By Blanche Willis Howard.	354
The Golden Rules of Ophthalmic Practice. By Gustavus Hartwig, F.R.C.S.	68
The Medical Diseases of Childhood. By Nathan Oppenheim, A.B. (Harv.), M.D. (Coll. P. and S., N.Y.)	423
The Ophthalmic Patient. By Percy Fridenberg, M.D.	138
The Practice of Medicine. By Jas. Tyson, M.D.	425
The Preparation of Byerson Eubury. By Albert M. Carman.	200
The Redemption of David Corson. By Charles Frederic Goss.	138
The Reign of Law. By James Lane Allen.	208
The Remarkable History of the Hudson's Bay Company. By Geo. Bryce, M.A., LL.D.	281
The Student's Medical Dictionary. By Geo. M. Gould, A.M., M.D.	353
The Treatment of Disease by Physical Methods. By Thomas Stretch Dowse, M.D. (Abd.), F.R.C.P. (Ed.)	352
The Treatment of Fractures. By Charles Locke Seudder, M.D.	66
Three Men on Wheels. By Jerome K. Jerome.	430
Tomay and Grizel. By James M. Barrie.	433
Twentieth Century Practice. Edited by Thomas L. Steiman, M.D.	351
Wanted: A Matchmaker. By Paul Leicester Ford.	433
Correspondence.	
Bubonic Plague.	340
"Mosquitoes and Malaria".	421
Ontario Medical College for Women.	64
Treatment of Inebriates in Massachusetts.	131
Editorials.	
A Decided Step in Advance.	344
Alcohol and Epilepsy.	186
Ambulance Doctors.	124
Are the Charges Against the Hon. Dr. Borden True?	61
A Visit to an Up-to-date Laboratory.	59
Bubonic Plague.	341
Canadian Medical Association, Past and Present.	117
Cod-Liver Oil in Tuberculosis.	337
Does Vaccination Protect Against Small-pox?	61
Dr. James H. Richardson's Golden Wedding.	122
Dr. Playter's Sanitarium.	187
Drunkenness in Women.	343
Experiments with Diphtheria Antitoxin at the Toronto Isolation Hospital.	260
Medical Women in Canada.	60
New Appointments at Toronto University.	123
Of Interest to our Subscribers.	120
On Some Uses of Catgut.	121
Patent Medicines.	340
Poisoning by Anilin.	100
State Sanitary Inspectors.	411
Subcutaneous and Cutaneous Alimentation.	119
That "Bete Noir," Hospital Abuse.	54
The Atlantic City Meeting of the American Medical Association.	56
The Awful Inadequacy of Our City Morgue.	272
The Bloemfontein Epidemic of Enteric Fever.	265
The Etiology of Alopecia Areata.	414
The High Status of Some T. G. H. Men.	264
The Ottawa Meeting of the Canadian Medical Association.	275
Turn Out in Force.	102
The Prevention of Tuberculosis.	113
Spurious Loyalty.	416
1900-1901.	417
Medical Jurisprudence and Toxicology.	
Corporal Punishment and Crime.	164
Dying Declarations.	171
Obituary.	
Death of Dr. J. H. Parsons.	134
Ophthalmology and Otolary.	
Application of the Galvano-Cautery in the Nose.	84
The Veil as a Cause of Red Nose in Women.	85

Original Contributions.		PAGE
Abdominal Pregnancy.—Report of a Case. By H. Meek, M.D., London, Ont.....	10	
A Brief Consideration of Gangrene and Mortification, Traumatic and Pathological, of the Extremities, By Thomas H. Manley, M.D., New York.....	338	
A Case of Congenital Ptosis, with Movements of the Affected Eyelid, during the Action of Certain Muscles. By James MacCallum, B.A., M.D., Toronto	384	
Address in Gynecology. By William Gardner, M.D.....	236	
Case of Malignant (?) Disease of Gall Bladder, Simulating Hydro-Nephrosis.—Feeding Through the Gall Bladder for Three Days. By F. N. G. Starr, M.B. (Tor.).....	147	
Club-foot in the Adult. By B. E. McKenzie, B.A., M.D.....	141	
Exploratory Incision in Obscure Brain Lesions.—Some Points in the Surgical Treatment of Meningocele. By L. W. Cockburn, M.D., M.R.C.S.(Eng.), Hamilton.....	163	
Gun-Shot Wound of Kidney: Nephrectomy—Thyroid Tumor and Fibrous Tumor of Lower Jaw. By Thomas H. Manley, M.D., New York.....	69	
Intussusception in Children, with Illustrative Cases. By A. Primrose, M.B., C.M. (Edin.), M.R.C.S. (Eng.).....	322	
Mental Sanitation. By R. W. Bruce Smith, M.D., Brockville.....	376	
On Prolapse of the Stomach—Gastroptosis. By Alexander McPhedran, M.B., Toronto.....	368	
Physical Training—Its Range of Usefulness in Therapeutics. By B. E. McKenzie, B.A., M.D.....	200	
Pre-Columbian Leprosy—A Critical Essay. By Robert Lehmann-Nitsche, M.D.....	7, 71	
Recent Neurological Research. By Ezra Hurlburt Stafford, M.B.....	25	
Recent Pathological Studies of the Blood. By L. H. Warner, A.M., Ph.D., M.D.; Brooklyn, N.Y.....	289	
Some Proofs that Small-pox is Prevented by Vaccination. By W. F. Elgin, M.D., Glenolden, Pa.....	157	
Surgery Among the Insane: Its Difficulties, Its Advantages, Its Results. By A. T. Hobbs, M.D., London, Ont.....	1	
The Physician's Vaster Empire. By John Hunter, M.D., Toronto.....	315	
The President's Address. By R. W. Powell, M.D., Ottawa.....	228	
The Relation of the Profession to Sanatoria for Consumptives. By P. H. Bryce, M.D., Toronto.....	150	
Tuberculous Lesions from a Clinical Point of View. By Edmund Owen, M.B., F.R.C.S.....	211	
Pharmacology and Therapeutics.		
Anusol as a Therapeutic Agent.—Clinical Notes.....	174	
Ichthyol in Tuberculosis.....	170	
Proceedings of Societies.		
Canadian Medical Association.....	240	
The Ontario Medical Association.....	29	
Public Health and Hygiene.		
Annual Meeting of the Association of Executive Health Officers of Ontario.....	180	
Appointment of Dentists to State Institutions.....	184	
Circular to Physicians and Local Boards of Health on the Prevention of Tuberculosis.....	88	
Conference of the London Sanitary Institute.....	94	
Report of Deaths from all Causes and from Contagious Diseases in Ontario for the Months of April and May, 1900.....	95	
Selected Articles.		
A Few Instances of the Use of Protocuein in Contagious and Non-Contagious Diseases.....	47	
Alkaloids and Their Actions.....	96	
Diphtheria and the Use of Hydrogen Dioxide in Its Treatment.....	408	
Gout.....	407	
Headache.....	403	
Hyperidrosis and Its Treatment.....	332	
Inhalation of Formalin in Phthisis.....	405	
Iodipin.....	334	
Medicine and Pharmacy Twin Sisters.....	359	
Nosophen as a Substitute for Iodoform.....	401	
Notes on Vicary Water.....	106	
Professor Manges on Heroin.....	50	
Relative Earnings of the Professions Throughout the World.....	201	
Report of "Emergency Ration" Committee.....	103	
Some Points in the Treatment of Tuberculosis.....	285	
Summary of Results of Seventy-eight Cases of Pulmonary Tuberculosis.....	109	
Ten Years' Experience in the Treatment of Enteric Fever by Systematic Cold Bathing, Based on 1,004 Cases.—The Method of Brand.....	36	
The Physician.....	197	
The Treatment of Catarrhal Conjunctivitis.....	108	
The Use of Hydrozone and Glycozone in Gastric and Intestinal Disturbances.....	334	
Typhoid Fever.....	390	

The Canadian Journal of Medicine and Surgery

A JOURNAL PUBLISHED MONTHLY IN THE INTEREST OF
MEDICINE AND SURGERY

VOL. VIII.

TORONTO, JULY, 1900.

NO. 1.

Original Contributions.

SURGERY AMONG THE INSANE: ITS DIFFICULTIES, ITS ADVANTAGES, ITS RESULTS.

BY A. T. HOBBS, M.D.,
Asylum for Insane, London, Ontario.

It is generally understood that for the successful treatment of physical diseases to which mankind is prone, the physician, in his endeavor to bring about favorable results, must have the patient's confidence and co-operation, and must also acquire a knowledge of the temperaments, idiosyncrasies and individualities of the person being treated. Without these acquirements, on the part of the physician, and with the absence of trust on the part of the patient, it is difficult to produce satisfactory results.

In the treatment of bodily diseases among the insane, the asylum physician encounters difficulties that would seem to the ordinary practitioner almost insurmountable. He has to make himself thoroughly acquainted with the various mental phases peculiar to each insane person, and must exhibit an inexhaustible supply of patience. He must be ever ready to depart from the beaten track of routine treatment and, as circumstances arise, initiate for himself new methods of dealing with each mentally deranged individual.

In the application of surgery to the treatment of surgical diseases in the London Asylum we have encountered all kinds of difficulties, and experience has taught us how to successfully overcome the various obstacles that arise from time to time.

The difficulties may be detailed as follows :

1. *Difficulty of Diagnosis*: Very little reliance can be placed upon subjective symptoms as portrayed by the insane. In many pain is not indicated as it would be in a sane person. The suffering induced by physical ailments in the insane may be designated by them as an electric current working upon their bodies detrimental to their well-being, or the action of some deadly poison introduced into their system by someone inside or outside of the asylum precincts; or to mesmerism, or to malevolence on the part of an enemy, etc. Others may have serious diseases present, but sensation is so dulled that no complaint that would indicate physical suffering is made at all. The description of their troubles, when given, is mainly erroneous and usually misleading. Actual examination is the only reliable method of ascertaining the existence of physical derangements in the insane.

2. *Difficulties of Examination*: The physical examination of insane patients presents many hindrances. They will not allow themselves to be touched by the physician. Their suspicions or fears of a simple action like a physical examination of the chest will cause them to struggle so that any effort to obtain satisfactory information concerning the heart, lungs, or abdominal contents is rendered futile. This being very often the case in such simple procedures, it will be understood that to obtain a gynecological examination of an insane female is practically impossible without the aid of anesthesia.

3. *The Difficulty of Anesthesia*: In the early days of our surgical work chloroform was the selected anesthetic. This, however, had to be abandoned, as resuscitation had to be resorted to in several instances to prevent collapse, as the chloroform narcosis became too profound and heart-action alarmingly weak. I believe that the depression and depreciation of the whole nervous system coincident with the mental derangement, makes chloroform a dangerous anesthetic to be generally used upon the insane. The application of ether has given satisfaction, and more so since the introduction of preliminary narcosis with nitrous oxide gas. The latter anesthetic prevents the struggling of the patient usually induced in the initial stage of the inhalation.

4. *The Difficulties of Preparation for Operation*: The preparatory treatment of a surgical case is often made difficult by the obstinacy and resistance of the patient. Simple bathing of a patient will sometimes take the united attention of three or more nurses. The same thing arises when an enema is given, or the urine drawn. Often the entire preparation, other than the bathing and of the giving of a purgative enema, can only be carried out when the patient is under an anesthetic.

5. *The Difficulty of After Treatment*: Nursing insane pa-

tients, especially after a severe surgical procedure, is often attended with difficulties that are unknown to surgeons whose clientele are possessed of mental soundness.

Some patients, after the effects of the anesthetic have passed off, will demand food and drink, and will not be pacified until their desires are partially, at least, appeased. Others will get out of bed if the nurse's attention should for one moment be directed to another part of the room, while some, unless carefully watched, will pass their hands under the dressing and finger the wound, or even go so far as to tear off the dressings and pull on the sutures. If excited, they will chatter incessantly, and if irritable they may become very disturbed and noisy. Dieting these patients, owing to their insane desires and cravings, is often troublesome. If not satisfied with the food prepared for them they will vent their displeasure by breaking the dishes, storming at the nurses and making themselves generally disagreeable. The thermometer is almost invariably used in the axilla, and even this simple procedure is repugnant to many of them, and a broken thermometer at times registers their dislike to such proceedings. This little instrument is sometimes regarded with deep suspicion as having the power to produce all kinds of electric shocks and evil influences upon their persons. I have known a patient on whom the thermometer was used, per mouth, produce in a few days a semi-circular ulcer extending under the edge of the tongue induced by biting and chafing it with the teeth, and then blamed the thermometer as being the cause, and denounced the nurse as having ulterior designs on her. Passive resistance has often to be overcome before a catheter can be passed or a patient sponged. It is not unusual for a patient to wet sheets and soil dressings, necessitating frequent changing. I have known patients get exceedingly angry if not allowed to get out of bed soon after a severe abdominal operation. No amount of persuasion will induce others to take medicine. In the course of subsequent treatment it requires eternal vigilance, endless patience, combined with the unlimited tact of the nurses who have charge of these special cases. I may say that without careful, conscientious nurses, trained especially for the management of these cases, the work would be a dismal failure.

As an offset to these difficulties of surgery among asylum patients, there are some advantages in the fact that they are insane, viz.:

1. *Advantages:* Little or no shock, as a rule, succeeds even a prolonged and dangerous operation, and post-operative pain is rarely complained of. No doubt the changed mental condition and the insensitiveness of the nervous system accounts for this. The majority of these cases make a good and rapid convalescence.

2. Another advantage is that, except in occasional cases, the regimen laid out for them is strictly adhered to in spite of all whims and fancies.

3. Again, ether narcosis is very quickly recovered from in the insane. A gentle slapping of the face will quickly arouse the most profoundly anesthetized patient and very little nausea or vomiting occurs subsequent to the use of ether. I may say in this connection that after an experience of about six hundred etherizations I have never seen an insane patient made mentally worse or in any way mentally improved as a direct result of the anesthesia.

Results: The results of operative surgery, especially gynecological, among the insane are twofold.

Primarily—the restoration of physical health.

Secondarily—the improvement and recovery of the mental condition.

I desire at this point to emphasize most strongly the fact that we do not operate for insanity or for the relief of the mental condition. Some physicians persist in ignoring this, and endeavor to fasten on us the charge that we claim to cure mental diseases by direct operation. Let me once more reiterate our text, "that these operations are done primarily and specifically for the removal of physical disease and the promotion of bodily comfort." Can anything be more clear than this? As to any succeeding mental improvements and recovery, this is always secondary to the restoration to bodily health from the removal of disease, especially pelvic. Let me ask, how can good health be established if complicating pathological disease is present in the patient's system without removing such lesion? And how are new growths, lacerated cervixes, torn perinei, prolapsed uteri, etc., pertaining to gynecological diseases, to be eradicated without the aid of surgical measures? If these conditions are present and are removed, and as a result good bodily health is restored and subsequent mental improvement succeeds, especially in cases of long-standing insanity, is it not fair to deduce that some connection exists between the bodily ailments and the abnormal mental condition?

It is conceded that the physical basis of mental disease is the brain itself. It is also admitted by all authorities on mental disease that disturbances of this organ are often a sequence of derangements of other organs of the body.

Also I think it will be admitted that the organs forming the series engaged in the reproduction of the species are, next to the brain, the most complex in their mechanism and most profoundly physiological in their function.

Furthermore, I am free to admit that derangements of the

brain will sometimes affect the functions of the sexual system; but on the other hand I emphatically affirm, from my experience of 168 cases, that disorders of the sexual organs will often produce disturbances of the brain ranging from mild mental unrest to the most severe attacks of insanity.

Whether this is brought about by reflex action, changed internal secretion, or of whatever theory which may be advanced as a solution of the phenomenon, the truth forces itself home to those having been actually engaged in the work that there does exist a certain interdependence between the organs of reason and those of generation.

At the London Asylum we have, since the commencement of the year 1895, endeavored to give our patients, when found necessary, the benefit of proper surgical treatment. Since that time we have examined gynecologically 211 patients and found disease in 179; 168 of these received treatment indicated for the diseases presented at time of examination.

The diseases relieved were subinvolution or endometritis, or both, 127 times; cystic, lacerated or hypertrophied crevices, 59 times; retroverted or displaced uteri, 52 times; prolapsed uteri, 5 times; lacerated perineci, 34 times; diseases of the ovaries and tubes, 32 times; fibroid tumors, 14 times; malignant tumors, twice; tubercular peritonitis, twice, and fistula, twice. On these it was necessary to perform 127 currettages, 51 trachelorrhaphies or amputation of the cervix uteri, 36 Alexanders, 12 ventro fixations or suspensions, 26 perineorrhaphies, 21 ovariectomies, 14 abdominal and 8 vaginal hysterectomies, 2 myomectomies and 2 laparotomies for tubercular peritonitis.

The physical outcome of operative treatment was uniformly good. More than this, the changes from abnormal to a normal mental condition succeeding the removal of these sources of irritation and of bodily decay occurred so frequently and so markedly that to term such phenomena mere coincident or accident in each case is absurd.

In summing up the mental results, I have divided the 168 patients into two groups and have further subdivided each group into divisions, the designation of each patient being indicated by the main disease present in her case.

1. The inflammatory group, consisting of 98 cases, are as follows:

Diseases.	No. Cases.	Ratio Mental Recovery.	Ratio Mental Improvement.
Ovarian and tubal.....	22 ..	15 or 68%	3 or 14%
Uterine body.....	38 ..	19 or 53%	6 or 17%
Uterine body and cervix.....	36 ..	15 or 39½%	8 or 21%
Tubercular peritonitis.....	2 ..	1 or 50%	1 or 50%

The average ratio of recoveries in the group was 51 per cent. and the improved ratio was 17 per cent.

2. The non-inflammatory group, consisting of 70 cases, are as follows:

Disease or Lesion.	No. Cases.	Ratio Mental Recovery.	Ratio Mental Improvement.
Uterine tumors—malignant and benign	24 ..	7 or 29%	9 or 37%
Displacements of uterus	40 ..	13 or 32½%	13 or 32½%
Tears of perineum, fistula, etc.	6 ..	—	2 or 33%

This class, as a whole, gave a recovery rate of 25 1-2 per cent., as well as 31 per cent. who improved mentally.

The number of deaths succeeding operation in the 168 cases was four, or a little over 2 per cent.

This dividing of the whole number into groups points out the relative effect that the removal of the difficult lesions subsequently had upon the mental health. It will be noted that the best results followed the removal of diseases that were the result of previous inflammatory reaction. Needless to impress the importance of the treatment of such gynecic disease whenever found in a deranged female.

It is interesting to note that insane patients, being mentally deranged for two years, are considered chronic, and that their prospects of mental recovery are somewhat remote. The fact, then, that 51 of the 112 patients who recovered or improved mentally had been insane for two years is exceptional, and is additional evidence as to the immense value of surgical gynecology when applied to removal or abatement of pelvic disease when found to exist among the insane.

Notwithstanding all this, there are those who doubt the truth of these statements. There are those who denounce these methods as savoring of mutilation, and characterize the introduction of gynecological surgery among insane patients as a presumptuous innovation which claims to cure mental disease by way of the pelvic cavity. Such criticisms may sound extremely virtuous and wear the air of righteous censorship; but coming from those whose experience is entirely theoretical and not practical should carry the weight of theory but not that of fact.

In conclusion, let me draw the attention of those critics to a fact which they must have overlooked, that there are hundreds of physicians in Canada to-day who, during long years of practice, have had women consult them for the relief of some pelvic discomfort or distress; and at the same time that they have noticed in these women pronounced abnormal mental symptoms indicating that if they were not already insane, they were at least on the borderland of insanity.

Furthermore, that after having removed the pelvic lesion in these women, they have witnessed an improvement or disappearance of the coincident mental derangement. Let me then

say that no amount of criticism or theoretical argument can overcome the conviction in the minds of these physicians that there must have been some connection between the local disease and the complicating abnormal mental condition.

PRE-COLUMBIAN LEPROSY—A CRITICAL ESSAY.*

BY ROBERT LEHMANN-NITSCHKE, M.D.,

Doctor of Natural Sciences in charge of the Anthropological Section of the Museum of La Plata,
La Plata, 1898.

To Dr. Albert S. Ashmead, of New York, belongs the merit of having raised the question whether the mutilations which are presented on the body of ancient Peruvian anthropomorphous clay figures, pertain to those produced by leprosy or, more important, if that disease existed in pre-Columbian times. This gentleman communicated to the Anthropological Society of Berlin the opinion of Mr. Muniz (of Lima), praying its judgment; according to the opinion of the last, some of the clay figures derived from ancient Peruvian graves present indications of said disease.

Prof. Virchow, on learning the hypothesis of Dr. Ashmead, was induced to remark, at the same time, that frequently the said alterations may be very similar to those produced by syphilis. For the purpose of explaining this question, he had revised the collection of the Royal Museum at Berlin, whose Director, Mr. Bastian, presented afterwards to the Anthropological Society the two figures which had been found, communicating also some notes on the history of leprosy.

Dr. Virchow, after examining them, said that in his judgment, the mutilations of the first vase corresponded to leprosy; those of the second he thought more convenient to attribute to a disease of a kind of itch.

These two clay figures have been reproduced in a *North American Review*, by Dr. Ashmead, who continues to occupy himself of this theme. He has published his works in the medical periodicals of this country; the last of these was presented to the International Congress of Leprosy, which took place in Berlin last year. The conclusions which resulted from this investigation led him to believe that the mutilations which are present on the Peruvian clay figures—that is, loss of the nose, loss of the upper lip, and of the feet—do not indicate alterations produced by leprosy, but might be easily those proceeding from syphilis. The aspect which the face presents in a leper is different, and moreover, other causes induce Mr. Ashmead to make his conclusions.

* Review of the Museum of La Plata (Argentina), Vol. IX., page 337, and following.

The last work of Mr. Ashmead was communicated to the Congress by Prof. Virchow, who showed at the same time that other Peruvian clay figures found subsequently in the Royal Museum of Berlin, presented equally such mutilations. Reserving carefully his opinions, but running in contradiction with Dr. Ashmead, he thought that in reality it was leprosy which had produced the mutilations.

Dr. Polakowsky, well known in South America, affirmed, on the contrary, that he had not encountered indications in the Hispano-American literature that explained or proved the existence of pre-Columbian leprosy, and that according to the opinion of Dr. Carrasquilla, of Bogota:

1. The first authentic case of real leprosy occurred in the person of the conqueror of Colombia, Jimenez de Quesada; this last who died of syphilis and leprosy, had brought these blessings from his country.

2. That leprosy does not exist among the savage Indians of the North-east of Colombia, who hold no relations with Europeans, in the meantime; that it is encountered in the civilized regions of the country, especially in the department of Santander, where it is very common.

The members of the International Congress of Leprosy left the case without resolution.

The question has been newly stirred up in the Anthropological Society of Berlin, by Prof. Virchow, who explained in the Session of the 16th of October, 1897, all that is known on this point up to date, and Polakowsky repeated what he had already said in the International Congress of Leprosy, showing that if this disease had produced similar mutilations in the feet, as those represented in the vessels, they would have been produced likewise, at least in the fingers, an indication which does not show itself in any of the clay figures. Polakowsky communicated besides the opinion of Dr. Carrasquilla:

3. That these ceramics do not treat of lepers, but punished criminals; that for little faults they cut off the nose and the upper lip; when they brought back old offenders who had escaped, they amputated also the feet, to keep them from committing new crimes.

Dr. Carrasquilla promised to send to Dr. Polakowsky the bibliographical proofs of the three opinions which he has put forth.

The summary of Prof. Virchow and the annotations of Mr. Polakowsky came to hand in opportune time to allow me to treat the questions of pre-Columbian leprosy in the section of Medical Science of the First Scientific Latin-American Congress, which took place in Buenos Ayres, April 10-20, 1898.

The Museum of La Plata possesses a most beautiful collection of different centenaries of ancient Peruvian clay figures, and some

of them present mutilations very similar to those studied by Ashmead, and those of the Royal Museum of Berlin. They were presented to the Congress with the object of throwing light on this question. After synthesizing these anterior remarks, I give the following: "Now, I may be permitted to express my opinion, to say that I doubt much that the mutilation of the nose, and of the upper lip has any etiological relation with that of the feet. It appears to me that here they treat of invalid beggars, who have acquired one of the diseases which are contracted in misery. This last disease, I am inclined to believe, was leprosy, because according to the accredited opinion of Dr. Virchow, there has not been confirmed as yet the existence of syphilis in pre-Columbian times. It is very difficult to distinguish the causes which could have produced the mutilations of the face, because both mentioned diseases and lupus occasion similar results, and in past times they were continually confounded. Who knows whether the Peruvian artist did not represent the results of these diseases in the same way, so that they could not be distinguished? All that these ancient artists have represented has been characterized in an admirable manner. And to show this you may see here the blind and the obese. To close: It is evident that these other two objects (Figs. 1 and 2) which I present, are not, in my opinion, amputated members, as Ashmead affirms,* but simply drinking vessels. I now beg those present to have the goodness to express their opinions respecting the question of leprosy."

Discussion (after a short intermission allowed by the President, for the purpose of examining the collection of Peruvian clay figures which had been brought to the Conference from the Museum of La Plata):

Dr. Valdez Morel (of Santiago, Chili): I am of opinion, regarding the mutilation of the nose, which is presented in these Peruvian objects, that such objects are cases of lupus, and not of leprosy. In the face which appears with the nose destroyed, it cannot be affirmed, because it would be a rare coincidence, an isolated mutilation of nose in a case of leprosy. With regard to the members (feet lost) the interpretation is doubtful.

Dr. Sommers (of Buenos Ayres): I declare categorically that the cases represented in these clay figures cannot be leprosy, because the nose appears destroyed, and in lepers the nose is not destroyed, but enlarged. Neither do they appear to me as cases of common lupus, that is to say, of tuberculous lupus. The regu-

*See Albert S. Ashmead, *American Pathological Notes: I. Pre-Columbian Surgery. II. Syphilitic lesion observed on a pre-Columbian skull, Univ. Med. Mag.*, June, 1895, y Bibl. Numero 6, page 49. Dr. Ashmead believes that the clay figures, which have an extremity in the upper part, represent a denuded bone after an amputation has been done. I, on the contrary, believe that it indicates simply the neck of the bottle, as in the rest of the clay figures. Wetner: "Peronet Bolivie," Paris, 1890, page 620, and Selzer: "Peruanische Alterthümer," etc., herausgegeben von der Verwaltung des Königl. -hen Museums für Völkerkunde zu Berlin, Dr. E. Mertens et Cie, Berlin, 1893, lamina 25, Numeros 17, 26, reproduce "Miembros Amputados" identical with those of the museum of La Plata.

larity of the mutilation of the nose, and also of the upper lip, shows that it treats of voluntary lesions, probably punishments, as has been said by Dr. Lehmann-Nitsche, who also could not interpret them.

With regard to the members which are presented, I believe, like the Conference, that they do not represent cases of leprosy, because in that disease we should have mutilation of a phalanx—of a little phalanx—but none of an entire member, and in a manner so neat, without showing inequalities.

Turning to the face, it appears to me impossible to understand how there could be, if it meant leprosy, disappearance of nose solely; moreover, that there should not be a single tubercle, when this is what would first attract the attention. From all of which I deduce that these clay figures do not represent cases of leprosy, nor of lupus. And it appears to me difficult to explain why real savants like those of the last Congress of Berlin, did not decide in a *categorical* manner, as I do it (Heavens!—Translator), to a definite and real end. It was due, no doubt, to the high authority of Prof. Virchow, who thought it was very difficult to decide whether leprosy was meant or not, in the cases represented on several clay figures brought to that Congress.

After the Scientific Latin-American Congress had closed, I received the last deliveries of the publication of the Berlin Anthropological Society. It has continued to occupy itself with our question. A lively discussion is stirred up, which has given origin to an investigation acute among Americanists. Now, let me give a resume of the results which are published in the *Verhandlungen* of said Society (16, 17, 18).

Mr. W. von den Steinen (16) has consulted the literature of South America—like, for example, the works of Cieza de Leon, and of Garcilaso de la Vega, and he has not been able to find indications that prove that the representations of mutilations on Peruvian potteries, had been produced by punishments applied to the individual. He believes, on the contrary, that they refer to the representations of a disease.

Mr. Stubel participated in the same belief, while Bastian (16) and Middendorf (16) thought that they treated simply of punishments applied to criminals. Probably leprosy existed already among pre-Columbian Mexicans, as the deductions of Mr. Seler would demonstrate (17), but notwithstanding, he said that it might be possible that they had favored the word *teococolitzli* to signify primarily some other disease of the skin, and presently afterwards leprosy; the custom of speaking erroneously of this last disease could likewise relate to pre-Columbian times.

Mr. Jimenez de la Espada gave this question a new turn, but he did not believe that leprosy, nor elephantiasis, a variety of

it, had been of pre-Spanish origin in old Peru; he did not know documents which supported such opinions, and was not in accord with the hypothesis of Carrasquilla, of Bastian and of Middendorf, who are of the opinion that they treated of criminals and beggars. He claims that they did not apply mutilations on the body as punishments, except to produce death.*

Moreover, beggars had not existed in old Peru, due to its social order so perfect. According to the judgment of Mr. Jimenez de la Espada, these vessels, or better said, these votive figures, represented a disease peculiar to Peru, an endemic variety of tuberculosis: "llaga" or "hutta." "They suffered much from the scourge of said llaga in past times, and they suffer to-day still in the hot, damp, and low valleys of Peru, especially in the places where they harvest the coca. The Peruvian Spaniards gave the name 'llaga' to this disease, the Quechuas 'uta' or 'hutta' (root formed from the verb *huttuni*, which signifies the action of gnawing of the little worm in the corn in the stalk.† In fact the disease corrodes and eats up the tissues of the upper lip, the nose, the throat and the palate. By this the hutta is undoubtedly a real lupus or tuberculosis."

Mr. Jimenez has discovered documents and data relating to this llaga in the description of a journey to Andamarca and Pangoa made by Mr. Barraillier,‡ and supporting his belief or con-

* Mr. Jimenez de la Espada knows only one note in the Peruvian literature which refers to the mutilations of the nose and lips. They mutilate in this way (the little kings or curacas of the Isle of Puna) their eunuchs after having castrated them for the purpose of materially preventing their going with the concubines, and to assure at the same time that they cannot exert any charm upon them. It is evidently the same notice which Zarate relates (*Histoire de la Conquete du Perou*, translated from the Spanish of Augustin de Zarate, by S. D. C. First volume, Paris, by the Compagnie des Libraires, MDCXXII, with the privilege of the king, page 25: "The lord of this isle (de Puna) was very much feared and very much respected by his subjects, and so jealous that all those who were commissioned to take care of his women, and even the domestics of his household, were eunuchs; and they cut off not only the parts which serve for generation, but to disfigure them they cut off also the nose." (From the French.) Bastian says the same (*Die Culturlinien der Alten America*, Berlin, 1878, Tomo 1, page 593): "The Prince of Puna used not only to castrate the guardians of his women, but also amputate the nose and the lips so that they did not present a seductive aspect (see Oviedo); the eunuchs were kept by the monks in the convents of Peru (according to Diego de Molina)." In regard to the punishments which Bastian mentions according to Herrera, my notice of mutilation is not found (page 548 and what follows), neither Rivero and Tschudi make mention (*Antigüedades peruanas*, by Mariano Eduardo de Rivero and Juan Diego de Tschudi, Vienna, 1851, pages 81, 82). Speaking of the laws and of the punishments they do not relate that they had cut off or mutilated the members of the body.

† See Mossi : *Diccionario Quichua-Castellano*, Sacr. : April 29th, 1860 : "Huttuni : gnawing of the worm of the corn in its stalk." Dr. E. W. Middendorf : *Worterbuch des Runa Simi oder der Keshua-sprache*, Leipzig, 1890 : "Hut 'uy, v. intra-picarse, podrirse."—(L.-N.)

‡ See E. Barraillier : *Viaje á Andamarca y Pangoa*, "Boletin de la Sociedad Geografica de Lima," tomo II, Numeros 4-6, September, 1892, pp. 121-144. To consult this rare work (see Bibl. IS, p. 612, the note) with more facility I give in continuation the complete description of all the diseases mentioned in that publication (p. 131): "I am obliged now to speak of the great defect of Pangoa. I desire to speak of its diseases. The greater part of these are those belonging to all the mountains. On account of this I shall occupy myself especially with that peculiar to Pangoa, the llaga or uta.

"The cause of this curious disease is somewhat unknown up to date; the majority of persons who have seen it agree that it comes from contact with a poisonous fly.

"In effect, Pangoa being a very wet place, it is possible that the miasms escaping from the swamps produce these flies, so terrible. My own opinion is that much help is given to the poison of these insects by the dirt and intemperance of the laborers of these places.

"Cleanliness is the first condition of health in the mountains, and notwithstanding many persons appear to forget it, nevertheless they take example from the dreadful sight.

"Llaga announces itself by a strong heat in the part attacked, which is generally the nose. Afterwards the part swells, becomes colored, first violet, then black. It appears as if sprinkled with an ash-

jecture in a note which is found in the "Relaciones" of Santillan,* in which it is called "Mal de los Andes," which makes them think in the Peruvian regions of the coca, that it is, as is said, a kind of cancer.†

Later on we shall determine precisely this point. Dr. Polakowsky believes it possible to classify our vessels in two groups, according to the character of the nose; in the first, he includes the clay figures, which present mutilations in said organ undoubtedly of pathologic origin; in the second group there is doubt whether it meant a demonstration of disease or only surgical operation. His third group, which represents the nose artificially split, of an Iscaicanga Indian, has no interest for us. Some of these vessels represent, without doubt, punished beggars who, in the opinion of Mr. Jimenez, never existed in old Peru. How get over this difficulty? How can we clear up the unknown here? Dr. Polakowsky doubts that all these vases proceed from pre-Columbian period, which is also believed by Mr. Seler. According to his opinion, it will be impossible to draw conclusions regarding the existence of pre-Columbian leprosy, basing them on the quality of these mutilations.

colored powder; it is gangrene of the flesh beginning, decaying thus little by little, disappears completely, leaving a horrible hole, which enlarges itself daily.

"I saw in Andamarca an individual who resembled a living skull. The nose had disappeared; five or six teeth of the upper jaw bone left in the middle of a mouth made by laga. From the nose this disease passes regularly to the throat, where it ends its work of destruction, making to perish, little by little, the unhappy one in the midst of awful pains.

"Two other cases of laga I saw; one had it on the hand (p. 142), the bones already appearing; the other had the calf of the leg eaten away. This disease has the very great advantage that it is not contagious. The best remedies are, in my opinion, caustics.

"I am obliged to say again that no one has seen a clean person, travelling or living in Pangoa, suffering of this disease, which proves very clearly that it is due in great part to dirt and intemperance.

"The second disease peculiar to Pangoa is Miranta. It is a disease very curious and unique in its kind. The persons who suffer of it are surprised on a narrow by a very acute pain in a certain part of the body. It registers with exactness, and then comes a swelling with colored and violet tints on the point. Upon opening this swelling there escapes a large worm, which was located between the skin and flesh, and which had caused the pain.

"According to observation of a friend of mine, who remained some months in Pangoa, this disease comes from leaving clothing stretched in sunny places. Then many flies fly about which rest themselves on the clothing, depositing their eggs, and there come to be left seed of some worms, which afterwards from the light and heat of the body, are introduced unrestrainedly in the pores for the purpose of fixing the muscles afterwards in the part more convenient to their appetite. The only remedy is operation and extraction.

"The preventives are: recover the clothing before they have deposited their eggs in the sun, and wash frequently. Baths in the hot countries are refreshing, agreeable and hygienic.

"In the range of other known diseases may be cited a third, whose symptoms are not equal to those of the coast, obstruction and swelling of the whole body, a kind of dropsy, which is due to the bad alimentation.

"These diseases are too well known to all, as well as their remedies, to make any description."

* See *Relacion del origen, descendencia, politica y gobierno de los Incas*, por el licenciado Fernando de Santillan, p. 117, en "Tres relaciones de antigüedades peruanas publicadas por el Ministerio de Fomento con motivo del Congreso internacional de Americanistas que ha de celebrarse en Bruselas el presente año. Madrid, 1879. Publicado por Marcos Jimenez de la Espada, p. 117: "And as these provinces of the Andes, where the coca grows, are situated in the territory of the cities of Cusco and La Paz and Charchas, where the weather is very cold, and as the people carry it from here to the Indies, where they go for the coca harvest where many have died of the difference of temperature, and others from a disease which is called 'disease of the Andes,' and which is a kind of cancer, so that after two days there is no more help, and others who hunger and work," etc.

† Mr. Jean B. Ambrosetti has communicated to me another notice of a disease of Peru, cited in the work of Zarate, which is only contained in the French edition (I have already mentioned the title), p. 10: "This country is very hot and very unhealthy, and one is peculiarly subject to certain warts or kind of furuncles, very evil and dangerous, which appear on the face and on other parts of the body, and are more to be dreaded than little verole or charbon of pest."

Polakowsky could not agree with the opinion of Dr. Carrasquilla, according to which they treat of punished criminals, because he has searched for data respecting it in the respective literature with completely negative results. We have left yet the hypothesis of the pathological lesion, at least as it relates to the first group, but these pathological lesions could not be produced by leprosy.

Mr. von den Steinen (18) described afterwards the Peruvian figures with mutilations, of the Royal Museum of Berlin.* He says: "Some represent heads, others the entire body; one of these last was stretched upon the belly, the others were kneeling, or with the legs crossed. All had mutilated the point of the nose, and the greater part, also, of the upper lip. In four of the pieces, from the complete body was wanting the feet; in the others, the inferior part of the body was covered with a cloth, which enveloped them from the height of the hips in a way which made one think that they also had lost the feet."

In the cases in which the upper lip exists, this is found swollen and prominent. One of the vessels of Berlin is surprising, by chance swelling and prominence in the inferior part of the face.

In closing the discussion in the Anthropological Society of Berlin, President Virchow (18) formulated his judgment, saying that he neither believed that they treated of punished criminals, as Dr. Carrasquilla had put it, because he had never found what might prove it in the related literature; besides, we possess a negative argument: There exists a wooden statue of a prisoner† who has the neck wrapped around with a cord, and does not present the nose mutilated. In regard to the doubt that these clay

*Some of these have already been published by Seler. Work cited.

†See Verhandlungen der Berliner Gesellschaft für Anthropol. Ethnolog. und Urgeschichte, 1873, p. 153, pl. XV., fig. 1. Virchow describes three "idolos de Madera" derived from the isle of Guana (Isla Chinchu); two are yet well preserved, one great and the other small. The great is on foot; the small one represents a trunk. "In both figures the arms hold the same position, arranged behind, like a person who listens tranquilly." "The greater idol holds a cord to the neck, which is tied in front by a coarse knot; one of the extremities of the cord hangs to the hypogastric region." The nose in the two takes the form of an eagle-beak.

Mr. Virchow says in a note (op. cit.) that according to the opinion of David Forbes, "these wooden idols represent prisoners, holding a cord or a serpent to the neck; the serpent eats the member (penis) of the prisoners. Forbes and A. B. Franks suppose that in this way they have symbolized the transmission of syphilis, a disease original to the mountainous regions of Peru, as is believed generally in that country, characteristic of the llama, and transmitted to man by unnatural vices." Ashmead also (9, p. 74) mentions this note, adding that for the unmarried men it was prohibited to keep llamas according to the ancient laws of Peru.

There is no doubt that Forbes had reason, that is to say, that these figures of wood were meant to represent prisoners. Weiner drew in his work already mentioned, p. 590, wooden statues completely analogous to those of Virchow, supposing that they represented prisoners. These drawings of Weiner's present neither mutilated lips nor nose. For greater affirmation the rich collection of the Museum of La Plata could serve. Here are the same types represented in ceramic. Undoubtedly they are prisoners. These clay figures are divided into three classes. The first is represented by a single specimen; it is a person standing holding the hands behind and bound by a cord. No other indication is noted which shows that it treats of a prisoner. In the second class the prisoners are on the knees, resting or sitting, with the feet crossed; moreover with a cord about the neck. In the third class the cord represents a serpent eating the penis, the hands tied at the back; it is to it that Franks and Forbes refer. In a second example of the same class the person was sitting in a chair.

Seler (op. cit.) published examples of the first and second class. Rivero and Tschudi (op. cit.) also published an example of the third class. In none of all these clay figures, which undoubtedly represent prisoners, was there mutilation of any part of the face or of the body.

figures belong to pre-Columbian times, there is found no cause to eliminate them from the other pre-Spanish objects so analogous. The fact that this disease has not mutilated likewise the fingers, which caused the surprise of Polakowsky,* is probably explainable, by admitting that *lepra mutilans* is not a disease directly leprous, and attacks, according to circumstances, more the upper extremities than the inferior.

In summing up, Virchow said (18): "We have to renounce preliminarily to understand the character of the Peruvian mutilations. To this time we do not know which are of pathological origin; nevertheless it is possible to admit a leprous affection. We have to examine later whether any other disease, for instance, llaga, cited by Mr. Jimenez de la Espada, has not been the cause of these mutilations. I am sorry not to know more about this disease of the mountainous regions. It will be of great interest to study the nature and extension of said llaga."

As will appear from the resume of this discussion, our subject concretely directs itself to a special point: the "llaga." Notwithstanding the doubts which were shown before the Scientific Latin-American Congress are not abandoned, and the difficulties which obstruct a definite conclusion are accentuated anew, we observe here that up to this time Mr. Juan de Dios Carrasquilla has not proved the affirmations which he propounded to Dr. Polakowsky. After receiving the summary of Virchow, I wrote to Mr. Carrasquilla, who answered in a way very exact and distinguished. I cannot let pass here the opportunity to express to him my very great gratification for the valuable and interesting data which he has had the amiability to place at my disposition.

Before reproducing his letter, I shall describe now the material which the Museum of La Plata furnishes us; afterwards, judge respecting the disease, especially llaga. There are in the Museum of La Plata ten vessels, which represent mutilations already described. They came, it is said, from "Trujillo." According to the indications one of these issued from the "Cerca del Temple del Sol," and two others from "Moche;" they are classified according to their character and the stage of the affection; the plates represent them one-third of their natural size.

Number 1 represents a head, and is certainly one of the prettiest, and is characteristic. Suffering has evidently printed its sign on the face, so noble. The sunken cheeks, the physiognomy weary and dejected, present the true cachectic condition. The eyeballs are prominent; the nose and upper lip are lost. It is like the specimen of Mr. W. von den Steinen, but much more beautiful and distinguished. Derivation: Trujillo.

The other clay figures represent the entire body.

*Originally pointed out by Ashmead in the Berlin Leper Conference.—TRANSLATOR.

Number 2: Person kneeling, holding the hands joined and held upwards in an attitude of prayer. The nose is mutilated, but not so the upper lip, which is turgid. It cannot be decided if the feet also are affected. Derivation: Trujillo.

Number 3 also represents a kneeling person, who pours from a little pitcher a liquid into a cup. The nose is corroded, and in part the upper lip, and apparently the lower lip also, making what yet has not been observed in the Peruvian vessels up to date. The feet are not distinguishable. Derivation: Moche.

Number 4: Another kneeling person; physiognomy extraordinarily heavy and brutal. The eyeballs prominent, cheeks sunken. The nose a little depressed in the middle part; the upper lip having a cut in the centre in the shape of a half moon, so that the upper teeth can be seen. No lesions in the feet are perceived. Derivation: Trujillo.

Number 5: A person kneeling; style and work entirely different from the other pieces. The face is carefully worked, representing in a manner very characteristic a peculiar style, while the rest of the body is uniformly marked, delineated in great strokes. The wings of the nose are sunken, the tip corroded, so that the aspect of the lesions takes the form of a trifoil. The septum of the nose is also profoundly destroyed. The lower lip is somewhat prominent; the upper one appears to be a little damaged. The upper teeth are well separated. The mouth is distorted to the left upwards, being very oblique and left-angled. (Paralysis of the facial nerve?) In place of eyelids it has rays peculiar in style. On the chin, lines diverge downwards, as also from the angles of the mouth. On the cheeks there are others, transverse; of these some appear more vertical. The subject holds in the right hand a little dish, in the attitude of begging. No lesions of the feet are observed. Derivation: Cerec del Temple del sol.

Number 6: A kneeling personage, very similar to that of Virchow and Mr. W. von den Steinen. Loss of tip of nose. The middle of the upper lip is mutilated in a triangular form, so that the gums show of a dark red color, as well as the teeth. The eyes are closed. (Is he blind?) The feet are amputated, and the sutures are in transverse direction. Humbly, and in suppliant attitude, he strikes with the right hand the drum which he holds with the left. The borders which mark the nose and the upper lip are mutilated, to correspond with the character of the work. As also do, for example, the fissures of the closed eyes; they are marked in such a way that they appear to be almost cut off. The character of the lesions of this piece, simply planned by a stroke of the graver, do not permit us to suppose that they treat of surgical lesions. Derivation: Trujillo.

Number 7: A person on the knees. The upper lip destroyed,



No. 1.



No. 2.



No. 5.



No. 3.



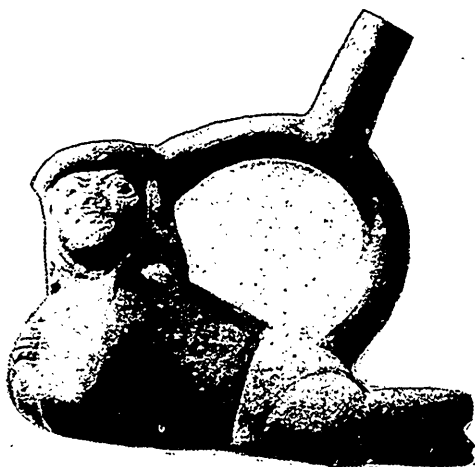
No. 4.



No. 6.



No. 7.



No. 10.



No. 8.



No. 9.

in the form of an arch; upper teeth visible. The lower lip almost prominent. Nose destroyed; feet wanting, and the sutures of the stumps are in sagittal direction. He holds in his hand a stick. Derivation: Trujillo.

Number 8: Person kneeling, like Number 7. The lower lip prominent, which is observed better in profile. The upper one corroded, forming a curve, the gums and the upper teeth showing. The tip of the nose is also lost. It has the feet amputated, and the sutures of the stumps are in transverse direction. Holds also a stick. Derivation: Trujillo.

Number 9: Personage with entire body stretched upon the belly. A similar one has been published by Ashmead and W. von den Steinen. The nose and both lips are wanting. The upper and lower teeth are visible. Wanting equally are the feet, the sutures running in transverse direction. It appears that in the analogous figure of Mr. von den Steinen, only one of the lips is lost. Derivation: Trujillo.

Number 10: A person on the knees. The body gross and puffed, is creeping on the knees with a stick in the right hand. The feet are lacking; the stumps have a sagittal suture. Only the nose is mutilated; on the right cheek is a drawing of a right-angle, and on the left one two rays; on the chin, that of a bug. (Does it represent the disease which has corroded the nose?) It may be only an error of the artist to have made six fingers on each hand in his work, represented for technical reasons in the auto-typical figure. Derivation: Moche.

Resuming these descriptions generally by the character of the work, and the degree of mutilation, we find that Number 1 represents a head, and all the rest entire bodies. Only Number 2 has the nose mutilated simply; Number 10 the nose and feet; the others, including Number 1, present lesions on nose and upper lip; Numbers 3 and 9 have also lost the lower lip. In Number 2, the upper lip and all the part above the mouth is very much swollen. In Number 8, the lower lip is exceedingly prominent; in Number 5 not so much so. Although it cannot be affirmed, it may be presumed that the feet are mutilated in Numbers 2 and 5, and this is undoubted in Numbers 6 and 9. The sutures of the stumps are shown in transverse direction in three examples (Numbers 6, 8, and 9), and in two only are they found in sagittal direction (Numbers 7 and 9). In specimens Numbers 5, 6, and 8, the edges of the mutilations appear as if cut with a knife, yet in my opinion they treat of cases identical with those of the other vessels. I have already explained that Number 5 is of a different style, but corresponds in character to the respective clay figures. This is not the opinion of Polakowsky already quoted, who treats of different types of mutilation.

I believe that the edges of the lesions have not been cut, but that they represent the same stage of disease; so in the other examples I have already explained that their borders correspond in make-up to the style of particular artists who have modelled them.

(To be continued.)

ABDOMINAL PREGNANCY.—REPORT OF A CASE.

BY H. MEEK, M.D., LONDON, ONT.

Fellow British Gynecological Society; Gynecologist to London General Hospital, London, Ont.

THE case I shall report was one of considerable interest in its clinical history, location of tumor and in the difficulties attending the diagnosis.

On Saturday, January 21st, 1899, I was called in consultation by Dr. Walker, of Glencoe, to see with him a patient suffering with symptoms resembling somewhat hepatic colic complicating pregnancy. On arrival at patient's home in Glencoe about 8 p.m. I got the following history: Mrs. Mc., aged 33; married nine years; one child living, aged eighteen months. Labor and puerperium normal. Nursed baby three months, and then weaned on account of deficient milk. She had had two miscarriages, one at five months and one at seven months. In both cases fetus dead at birth. The last miscarriage occurred four years ago. Menstrual periods started when aged fourteen years, and had been regular every four weeks except during pregnancy and lactation. The flow usually lasted four or five days, and was rather free but not painful. Last period occurred October 13th, 1898. There was nothing abnormal about this period. Patient's previous history had been good. She had always enjoyed good health. With cessation of menstrual periods, she supposed herself pregnant, and with the exception of slight morning sickness she felt perfectly well till first week in January, 1899, when one morning about 6 a.m. she awoke with severe pain in epigastrium and sternal region, accompanied with slight faintness. This attack lasted about one or two hours, after which she was able to get up and attend to household duties, but she did not feel so well as before the attack. Again on Tuesday, January 17th, about two weeks following previous attack, she awoke about same hour in morning with similar epigastric and sternal pain accompanied by faintness, resembling in every particular the symptoms of previous attack; with this difference, however, that they persisted, and on following day pain shifted and became localized in right iliac region and higher up on right side. She had to remain in

bed and morphia was required to relieve pain. She had vomited but once—after a dose of morphia given to relieve pain on Tuesday evening. Her temperature had not exceeded 99 4-5 degrees F., and her pulse had not been above 90. There had been almost complete loss of appetite. Bowels had been moved freely with purgatives and the stools were dark-colored. There had been no trouble with urine. She had been sleeping well.

At the time of my visit the symptoms complained of were pain and tenderness in right side of abdomen, in right iliac region and higher up near under surface of liver. She could not lie on left side on account of dragging pains in right side. Moving about in bed increased the pain complained of. Her temperature at this time was 99 1-2 degrees F., and pulse 90. She was very stout, weighing about 170 pounds, and did not look ill. She was not jaundiced and not anemic.

Examination of the abdomen was rendered difficult on account of the great thickness of fat in the abdominal walls. It was found to be dull, on percussion in right iliac region and up toward right lumbar region, but resonant below liver and on left side; also low down on right side. An enlargement and thickening like inflammatory effusion could be distinctly felt in right iliac and right lumbar regions. Another enlargement like enlarged uterus could be felt extending up from behind pubes in median line nearly to navel. The mass on right side was very tender on pressure.

P. V.—The vaginal outlet was open and the mucous membrane had the bluish, purplish discoloration of pregnancy. On passing finger into vagina, a mass could be felt filling pelvis, more on right side and posteriorly than on left side. The os was found open and soft, high up behind symphysis pubis. The impression one first got from digital examination was that of an enlarged, retroflexed, pregnant uterus partially impacted in pelvis. On more careful examination it was found that the fundus of uterus was forward, reaching nearly to navel, and the mass posteriorly was a myoma in posterior and right wall of uterus. The whole uterine tumor had some mobility and could be pushed up some, so that cervix could be brought down from behind pubes. Although uterine tumor could be moved independently of mass in right abdominal region, still when pressure was made on this mass from above it caused uterus to descend some, giving one the impression that there was some connection between the two. The possibility of intrauterine pregnancy contraindicated the use of uterine sound.

Examination of patient's urine at this time gave negative results, except that it was very acid and loaded with urates.

The breasts had the appearance of pregnancy.

A probable diagnosis was made of intrauterine pregnancy complicating myoma in uterine wall, and probable inflammatory effusion in appendix region. The possibility of extrauterine pregnancy was considered, but the symptoms did not appear to be sufficiently marked for this—the faintness had never amounted to actual syncope, and she had been subject to fainting spells from slight causes all her life. It was decided to keep patient quiet under close observation.

After the examination patient suffered very little pain, and felt comparatively well except for nausea, particularly after taking solid food, and occasional slight dizziness and fainting spells. She kept very quiet and lived mostly on milk diet.

She lost weight very rapidly. The mass in right iliac and lumbar regions appeared to enlarge some, while the uterine tumor appeared to remain stationary. It was difficult to say how much of the enlargement in right side was real or only apparent from loss of abdominal fat and general lessening in size of abdomen. About the middle of March there was for a short time some malodorous, vaginal, watery discharge. This was the first discharge of any kind there had been since cessation of menses in October.

On April 7th, 1899, I again examined patient with Dr. Walker for the second time, and found the abdominal tumor on right side larger than at previous examination, and the feel something like an enlarged, pregnant uterus, but the location and shape was more like a tumor of right kidney. The uterine tumor was no larger than at first examination. A bruit, like that heard in normal pregnancy, could be distinctly heard low down in front above pubes.

P. V.—The signs of pregnancy were the same. Pulsation of uterine arteries was very distinct. The os was still high up behind pubes and open, so that finger could be passed almost through the internal os. On removal of finger from cervical canal, some dark-colored blood followed, attended with slight labor-like pains. The myoma in posterior wall of uterus felt harder than at previous examination. All tenderness from pressure on abdominal tumor had disappeared. Patient had not felt life, and neither fetal movement nor fetal heart could be detected on careful examination.

In a letter from Dr. Walker, April 21st, he says patient had slight labor-like pains for a week after this examination, but since then she had been fairly comfortable, with the exception of a continuous discharge of a pinkish color and rather offensive odor. She had taken little nourishment except milk. The size of abdominal and uterine tumors was about the same. Temperature had ranged from 99 degrees F. to 100 degrees F., and pulse

about 90. On May 1st she came to St. Joseph's Hospital, London, and on May 3rd, under ether anesthesia, we examined. The abdominal tumor under anesthesia had the shape and feel and other characters of a tumor of right kidney, and a distinct sulcus could be felt between its lower end and the upper cornu of uterine tumor. Apparently, however, the two tumors were connected at this point by what appeared to be inflammatory adhesion bands. A sound was passed into uterus forward to a depth of between six and seven inches. The cervix was easily dilated with a Goodell dilator and the finger introduced into cavity, but no fetal sac could be felt. With a large curette, I carefully curetted out a large quantity of thickened decidua and a myomatous polyp about the size of a small marble. In the scrapings I could see no appearance of placenta or fetal coverings. The bleeding during curettage was profuse and dark in color, but ceased after the entire lining was scraped away.

The cavity was irrigated and packed with iodoform gauze. After curettage, the pulse ranged for a day or two between 110 and 120, and patient had a very anemic appearance. The gauze packing was removed on third day, after which there was no more bleeding from uterus.

On the fifth day after curettage the temperature, which had previously ranged from 99 degrees F. to 100 degrees F. went up to 102 degrees F., and pulse over 120. Patient suffered from considerable nausea and vomiting and some bearing down pain in pelvis with distress in voiding urine. Her urine became somewhat scanty and on analysis showed some pus but no casts nor blood. The myoma in posterior wall of uterus became hot, tender and swollen. The abdominal tumor was not tender except at one point high up near under surface of liver. The pelvic and systemic disturbance appeared to be caused by inflammation of uterine myoma. These symptoms lasted nearly two weeks, then gradually subsided, all symptoms becoming normal. All tenderness and heat disappeared from myoma and both this tumor and the uterus itself quite rapidly reduced in size. The abdominal tumor remained nearly stationary, or possibly there may have been slight diminution in its size.

The uterine scrapings were sent to Dr. Cullen, Johns Hopkins Hospital, Baltimore, for examination, and the following report was received from him: "The nodule, as you suggest, is a myoma. The scrapings consist almost entirely of normal decidua, but no placental villi are present. It is just such a mucosa as one finds several weeks after a miscarriage. There is not a trace of any malignant process."

The diagnosis of the abdominal tumor was still doubtful. We were, however, inclined to look upon it as a tumor of right kidney.

On May 31st I have recorded in case book: "Patient's general condition much improved; appetite good and gaining strength; abdominal tumor reduced some; uterine myoma reduced one-half. Sound in uterus measures three and one-half inches. Quantity of urine passed during twenty-four hours, about forty ounces. Urinary analysis shows pus but no blood or casts."

On June 15th, under ether, I made an exploratory incision in right semilunar line of abdomen, extending from lower margin of ribs above downward about six inches over most prominent part of tumor. On cutting through the abdominal wall I came in contact with surface of tumor, which at first sight appeared to be extraperitoneal, but on closer examination, after enucleation had been proceeded with for some time, it was found that tumor surface was closely blended with parietal peritoneum. Enucleation was moderately difficult. In order to get sufficient room it was found necessary to make another incision backward at right angles to vertical incision in lumbar region.

In enucleating outer side posteriorly the sac was broken into. Some dark clots and then fluid escaped, and through the opening back of fetus presented. The fetus occupied a doubled-up position in sac, with buttocks down and head flexed on body higher up. The placenta lay to the inner side and anteriorly to fetus, and was attached to the peritoneum to the outer side of ascending colon. The whole sac lay in a bed directly in front of right kidney, having pushed the colon over near median line of abdomen: the upper, large end just below the lower margin of liver; the lower, small end in the outer part of right iliac fossa. Attached to this end and to the abdominal peritoneum at this point was the fimbriated end of right Fallopian tube.

After separation and ligature of bleeding points in abdominal end of tube the whole sac, containing fetus and placenta, was readily enucleated from its bed and removed. After enucleation of tumor, the only part of bed that could not be thoroughly cleansed was a pocket about two inches in diameter high up in right lumbar region, and this was packed with iodoform gauze brought out through abdominal wound.

Examination of pelvic organs through the abdominal wound showed uterus enlarged up to margin of brim of pelvis by a myoma in posterior wall to right. The myoma was the size of a small orange, and lifted the right Fallopian tube somewhat above the pelvic brim, the outer end of tube being well up in iliac fossa and adherent to parietal peritoneum of abdominal wall at extreme upper and outer part of fossa. The right ovary was found flattened out and adherent to posterior surface of broad ligament well up in iliac fossa. It was slightly larger than normal and cystic. After the adhesions were separated and cysts punctured, the gland

had a normal appearance. The tube also appeared normal, except at the adherent outer end. A probe passed down through tube showed the canal to be patulous. All adhesions were separated and the abdominal orifice of tube was closed by suture and both tube and ovary were permitted to drop back toward the pelvic cavity. The left ovary and tube were found normal and not interfered with.

The abdominal wound was closed by suturing the transversely cut muscles in lumbar region in layers with catgut, and the vertical incision with silkworm gut, except where gauze packing was brought out near upper end of wound.

Convalescence from operation was practically uneventful. There was little drainage from the gauze packing, which was removed on the fourth and fifth days after operation. Primary union took place throughout the whole length of the abdominal wound, except at a small point where gauze drain had been. Patient left hospital in good condition July 20th.

Remarks.—1. In this case I think there can be little doubt but that the pregnancy started as tubal near the outer end of right Fallopian tube, and it is probable that a tubal abortion with expulsion of sac and contents complete into abdominal cavity took place about first week in January. The uterus, being lifted up by the myoma in its wall, and also by the development attending pregnancy, raised the tube so that its outer end was well up in right iliac fossa in such a position that ovum sac aborted into the space outside cecum and ascending colon, forming attachments there. Development as an abdominal pregnancy continued till probably about April 1st, when fetus died, after which patient had false labor pains, with discharge of some blood from uterus, and later on some diminution in size of abdominal tumor.

2. Internal hemorrhage had never been very great. Some hemorrhage had evidently occurred into sac, as at operation sac contained considerable old blood-clot. A few organized blood-clots were also found in peritoneal cavity at lower end of sac in right iliac and inguinal region.

3. It is probable the anemia and rapid pulse following curet- tage on May 3rd were partially due to loss of blood from uterus and partly to some internal hemorrhage into sac and into peritoneal cavity at lower end of sac, as the anemia, etc., following this procedure seemed out of proportion to the quantity of blood lost from uterus.

4. The location of abdominal pregnancy tumor and its marked resemblance in nearly all of its characteristics to a kidney tumor were peculiar.

5. Besides the location of tumor, other difficulties in the way of making a correct diagnosis before operation were the absence

of marked symptoms of internal hemorrhage at any time, the fat abdominal wall, the inability to detect either fetal movement or fetal heart, and the enlarged, myomatous uterus, having about it all the early signs of intrauterine pregnancy complicated by myoma.

6. That fetal movements were not felt by patient, and neither fetal movements nor fetal heart detected by attendant may be accounted for by the very thick abdominal wall and thick sac wall which covered the fetus anteriorly.

331 Queen's Avenue.

RECENT NEUROLOGICAL RESEARCH.

BY EZRA HURLBURT STAFFORD, M.B.

THE development of the department of Neurology and Mental Diseases is at the present time exceedingly rapid, and each succeeding publication is awaited by students of the subject with an interest almost as keen as that contemporaneously exhibited by the blood-thirsty laity in the matter of war news.

Possibly this attitude of expectancy in the scientific world is not altogether salutary. The writer boarded twenty years ago, when still a student, with a most deserving and exemplary widow. She was, however, exceedingly nervous. Though, like the scriptural widow, she had but her mite, she still could not divest herself of the notion that she was in imminent peril of losing it by burglary. In the same plight as Troas, and other celebrated fortifications, her house had one weak point, by which she constantly dreaded the strategic and violent entrance of some masked man, bearing a dark lantern, a few daggers and a gun. This weak point was the pantry; and when the writer's acquaintance with her began, the obsession had become so strong that the worthy (but timid) woman would interrupt him very frequently, at nearly every hour of the day or night, and, arming him with a candle and the furnace poker, which was ten feet long, insist that he should stealthily go there when he didn't want to go there, and when it did not seem to him that there was any reason why he should go to the pantry. This practice interfered so much with the writer's studies in trigonometry that he eventually found a pension elsewhere, in a house not far distant, which was considered impregnable to the burglarizing class. But the moral, nevertheless, has ever remained with the writer, as he thinks morals always should.

When Sir Charles Bell made his most important discoveries

in the nervous system, there was no one who expected such a discovery to be made just then. At that time the scientific world was not habituated to discoveries, and was rather averse to the idea. Matters were much the same, also, when Marshall Hall, explained the principle of reflex action. In those days a grammatical dissertation upon the text of Aristotle, or a sprightly exercitation upon the tenses of the irregular verbs of Hippocrates raised the scientist to respectability, and even fame, in the world of learning; but a disgusting addiction to the handling of dirty, raw, dead things (and poking them) was considered nasty. They therefore thought, and were not at all slow in frequently saying so, that Bell was a simpleton, and that Marshall Hall was a knave.

Now it is all different. The scientific world is intoxicated with new discoveries, which, like new wine, have their serious side also. With his wits whetted by miraculous feat after miraculous feat, the student of the present day is like the bewildered husbandman at the circus, reeling pleasantly in a tinselled realm of dazzling uncertainties, and too excited to be surprised by anything. Paracelsus is said to have produced in himself a similar emotional condition, but his life may be said to have at least ended in something of a surprise, especially for Paracelsus.

To sum up, therefore: while the churlish and absurd opposition met by Bell and Hall did not dim in the least the ultimate importance of their discoveries, the smiling and eager expectancy of the world to-day, which at the faintest aura of promise is plunged into a delicious paroxysm of anticipation, assists in floating into notice many grotesque and ridiculous theories, which, though of course discarded very suddenly by everyone after a little while, still somewhat impede the progress of serious scientific investigation. And this applauding gallery is no more disconcerted when it has created a panic by a false alarm than was my widow. It appears to me that the members of this irresponsible class are somewhat dulled in situations of the sort. They cannot be easily mortified. They are like Paracelsus.

Guarding one's self circumspectly against any tendency to weakness in the same direction, the fact nevertheless remains that there is much cause for felicitation in the admirable drudgery which is at present being quietly and patiently done in the laboratories by men of exceptional ability, who know that the drudgery has to be done: that the knowledge of the subject can make no advance until the drudgery is done, and that no one else will or can do it; who know that it is not a very brilliant form of employment, and beyond the commendation of a few specialists, will go unnoticed by the world at large, ensuring to their names no immortality but that of a mention in the footnotes of subsequent works; who know that some dashing, "synthetic philoso-

pher," of racy style and popular theories, whose every action is followed by the mob of sober smatterers, will some day gracefully gather up the laborious results of this same drudgery, along with that of many other similar workers, and form the whole into a splendid entirety, which the vociferating mob referred to will regard as the work of his own genius; who, knowing all this, and in spite of all this, still labor cheerfully at a task which is almost thankless. A cause for felicitation, I repeat, for this is the true scientific spirit—the spirit which is seen in the work of a Ramon y Cajal no less than in a Bichat or a Leeuwenhoek.

Apropos of the same there is in the last number of the *Archives of Neurology and Psychopathology* a monograph of two hundred pages entitled "The Cranial and First Spinal Nerves of Menidia. A contribution upon the Nerve Components of the Bony Fishes." By C. Judson Herrick, of the Pathological Institute of the New York State's Hospitals.

Comparative Neurology is not a new departure; indeed, Edinger's volume, published some time since, has proved a most valuable contribution to the subject; but the systematic monograph of Herrick, while space will not admit of an exhaustive analysis of it here, is deserving of an external perusal, exemplifying, as it does, what recent methods of research patiently pushed to the utmost limit, may accomplish. Starting out with a reference to the striking neurological findings in the recent discoveries of the history of the cerebral cortex, the writer remarks, however, that "in the domain of the peripheral nerves we have as yet developed but few such illuminating generalizations, and our students still memorize the twelve pairs of cranial nerves, their trunks, rami and ramuli, with the distribution of each, much as one would learn a Greek paradigm. If there is any morphological nexus between the various nerves, or any basis for a rational classification, the average text-book gives no hint of it. In view of the present inchoate condition of the morphology of the cranial nerves and of the fundamental relation of this problem to the proper understanding of the great afferent and efferent systems of the neuraxis itself, it is most fitting that within very recent years there has been a notable increase in the number of researches centring about these questions. The literature of the cranial nerves is remarkably voluminous, but by far the larger part of it is either purely descriptive or dominated by crude and false morphological theories."

The present monograph is, therefore, a contribution to the literature of the cranial nerves, and, we think, a very valuable one. The methods of investigation are enlightened, most exhaustive, and have been attended with the most gratifying results.

Treating also of the nervous system, but embracing the whole

field, is the remarkable work of Levellys F. Barker on the Nervous System and its Constituent Neurons just published. This extensive volume is practically a review of recent developments in the department of neurology; and formally presents the progress made in the subject up to the present day. "In the first part of the volume," the author remarks prefatorily, "the newer conceptions of the histology of the central and peripheral nervous organs are reviewed. In the succeeding chapters the attempt has been made to apply the neurone conception—that is, the cell doctrine—as consistently as possible, in the explanation and description of the complex architectonics of the nervous system. The term *neurone* is used throughout in the widest sense to mean a cell belonging to the nervous system with all its parts."

In the history of the development of the neurone concept, the writer describes with much spirit the studies of His, Golgi, Forel and Ramon y Cajal. Proceeding, then, to a consideration of the external and of the internal morphology of neurones, the histogenetic relations of the neurones are entered into, and the positions of the neurone as a unit in physiological and pathological processes is set forth. These sections occupy about three hundred pages of the book. The remaining eight hundred pages are devoted by the author to the grouping and chaining together of neurones in a complex nervous system like that of man and higher animals.

In the closing section especially has the writer shown his powerful grasp of physiological phenomena; and in his classification of detached and isolated details, themselves most conducting, he claims not only the admiration but the gratitude of students of neurological doctrine. Great skill, which is genius, added to untiring patience and infinite labor, have produced this work, which, while modestly purporting to be simply a *resume* of the present state of scientific knowledge upon a given subject, bears still the touch and the personality of the author throughout.

In undertaking to bring together the immense recent literature on neurology, there necessarily is, as a writer in the *American Journal of Insanity* indulgently points out, an apparent lack of balance, perhaps, and an inco-ordination of parts in the work; but when one considers the bewildering state of transition in which neurology is at present, it is hardly too much to say that these defects were quite unavoidable; and, if defects, are rather due, "*Lector Benevole*," to the state of the subject, than to any clumsiness or lack of skill on the part of this "*Medici doctissimi atque expertissimi*."

Proceedings of Societies.

THE ONTARIO MEDICAL ASSOCIATION.

THE Ontario Medical Association opened their twentieth annual meeting on June 6th, in the Normal School, with a very fair attendance of members for a first session.

Owing to the demise of the late President, Dr. J. E. Graham, the First Vice-President, Dr. Adam H. Wright, was unanimously elected to the chair.

Dr. Roddick, M.P., of Montreal, and Dr. Powell, Ottawa, President of the Dominion Association, were invited to seats on the platform.

Dr. David Hoig, Oshawa, read a paper on "The Use of Morphia in Puerperal Convulsions." He stated that he had originally entertained a prejudice against opium in such cases, but he had been finally led to employ morphia, and, except in a few cases, with happy results. He concluded that it was a most valuable drug in controlling puerperal convulsions, especially in non-albuminous cases. He advocated purgation and diaphoresis as adjuncts to eliminate the toxin.

Dr. Luke Teskey opened a discussion on appendicitis, its recognition and operative interference. There were many degrees of inflammation in this disease, he said. He instanced (1) the catarrhal chronic form; (2) acute circumscribed appendicitis; (3) acute fulminating or gangrenous appendicitis. He favored operation, even in the first class of cases, and thought there should be a low, if any, death rate, from it. If unchecked, this simple form would lead to the development of the graver form of the disease. He also advocated operation in the second form of the disease, while in the third form it afforded the only chance of saving life.

Dr. G. A. Bingham agreed with Dr. Teskey as to the advisability of operations in the early stages of the disease.

Dr. H. A. Bruce and Dr. Peters took part in the discussion, which continued till adjournment for lunch.

THE PRESIDENT'S ADDRESS.

On the opening of the afternoon session the President delivered an address on "The General Public and the Medical Profession."

After expressing his satisfaction at the pleasant relations which existed between the profession and the public of Ontario, he went on to say that the members of the profession were frequently not so kind to one another. In this connection he reviewed some of the triumphs of medicine during the century, and showed that their medical heroes got little or no support from their professional brethren. It was difficult for the students of to-day to realize the truth of the statements made as to the greatly improved status of the profession in recent years. The following advertisement taken from a newspaper of Shakespeare's time, would give an idea of the position, social and otherwise, of a physician of that era: "Wanted, in a family who have had bad health, a sober, steady person, in the capacity of doctor, surgeon, and man midwife. He must occasionally act as butler, and dress hair and wigs. He will be required sometimes to read prayers and to preach a sermon every Sunday. A good salary will be given." (Laughter.) In those days the physician was generally depicted by writers, dramatists and others as a cunning knave or an ignorant charlatan.

What a contrast to-day! The painter makes the physician a hero, and as an instance he cited Mr. Luke Fildes' picture, "The Doctor." The President pointed out how finely Ian Maclaren in *Dr. MacLure*, and Ohnet in *Dr. Rameau*, had drawn the physician's character. He eulogized the services of Dr. J. E. Graham, the late President, to Canada, and in closing said that they all appreciated now better than before that while physicians of Ontario they were citizens of Greater Britain, and would like to have their professional status as broad as their citizenship. The little Englander of Canada was dead. They had buried him, and were glad to have been at his funeral. Something—call it Imperialism if they liked—had heated their blood. They felt bigger than they did a few months ago. The profession felt that they were getting too large to be bounded by the Ottawa River to the east, and the Lake of the Woods on the west. "We want," said the President in conclusion, "our medical parliament to do all in its power to set in motion the machinery to give our graduates a Dominion degree, which will carry with it a license to practise in any part of the great empire of Great Britain." (Appl. se.)

On the motion of Dr. Temple, seconded by Dr. Bray, a vote of thanks was returned to the President for his address.

Dr. Lewellys F. Barker, Johns Hopkins Hospital, Baltimore, read a very exhaustive paper on the "Present, Past and Future of Therapy," and received a vote of thanks.

A discussion on "Inter-Provincial Medical Registration" was introduced by Dr. J. Arthur Williams, Ingersoll. He alluded to the different standards of qualification for a certificate in the dif-

ferent Provinces, and the anomaly and injustice of a medical man with an Ontario certificate being prevented from attending a patient across the border of, say, Quebec. He gave a retrospective history of the various steps in the movement for a reform, and explained the provisions of Dr. Roddick's bill. In order to have reciprocal relations with the other Provinces and with the British Empire, they must of course have one common standard of qualification. Imperial registration would confer valuable advantages upon our young men, particularly in regard to the army and navy services. The bill simply proposed that a student could be examined by a Dominion Medical Board, who would grant certificates, and it was then taken for granted that this standing in medicine would be accepted by every Province and registration granted without further examination.

Dr. Thorburn said that as Imperial Federalists they should enjoy all the privileges of the empire. He therefore favored the reform.

Dr. Britton expressed himself in favor of the project. He objected, however, to the power being given to the Governor-General in Council to appoint one-third of the representatives in the Dominion Council. It might be used politically.

Dr. Herald, Kingston, said it was an injustice and an anomaly that under present conditions a man like Dr. Roddick could not come to Ontario and treat a patient. He thought that representation might be based upon the dividing of the Dominion into units, and giving each unit so many representatives.

Dr. Roddick, M.P., said that he had intended to bring up the measure mentioned at this session of Parliament, but withdrew the bill in order to get the approval of the Ontario medical bodies first, because it would have a great influence on the other Provinces. The measure was one which would bear waiting, being far too important to receive a check in the House of Commons. He wanted them to understand the difference between inter-Provincial registration and the Dominion scheme. The first meant an understanding between the Provinces which would lead to an interchange of licenses. But there would be no responsibility, no central body, and should a Province take offence at any time it could defy the others. It would be impossible for an inter-Provincial scheme to bring about reciprocity with Britain, because the British Medical Act says that the Council will have nothing to do with portions of a confederation, but will deal only with the central Government. With regard to the composition of the Dominion Council, a conference of the profession from all parts of Canada had agreed that they would be satisfied if each Province had three representatives. It was thought that, to a great extent, this Council would become an advisory board of the Dominion Government upon matters

affecting the public health, and that the appointments by the Governor-General would strengthen that function, besides giving a status to the Council.

After some further remarks by Dr. Williams, the meeting adjourned till the following day.

The second day's session of the Association was mainly devoted to the reading of papers, and discussions thereon. Among those who contributed were: Drs. P. G. Goldsmith, Belleville; L. W. Cockburn, Hamilton; J. C. Hutelinson, Montreal; G. A. Peters and J. T. Fotheringham, Toronto.

Dr. Fotheringham's paper explained the army medical arrangements for the war in South Africa, and traced the course of a patient from the time he is removed by the bearer company successively to the field, stationary and base hospitals, and finally to the hospital train for transport to the hospital ship.

At the opening of the afternoon session, Dr. R. D. Rudolf read a very interesting paper, entitled "Observations upon Blood Pressure," illustrated by lantern slides. Dr. Rudolf showed by means of instrumental tracings, photographed and projected by the lantern on the screen, the variations not only in respiration, but of the pulse and blood pressure by the action of chloroform and other anesthetics, and also of certain stimulants, such as hydrocyanic acid, which, while a poison in certain quantities, is a powerful stimulant in minute doses.

Dr. N. A. Powell read a paper on "The Adaptation of Patients to Climate in cases of Phthisis." He pointed out that constant mistakes had been made in connection with this matter. Doctors had been too ready in the past to send consumptive patients to Florida and other warm and relaxing climates, and while they thought they were benefited at the beginning, symptoms of rapid progress of the disease soon set in, and the patients returned only to die. He insisted upon the necessity of taking the disease in the earliest stages. The best time to try the effect of a foreign climate was when a patient showed a predisposition to any form of phthisis, without waiting till the lung was actually attacked. In the case of early hemorrhages a resort to moderate elevations generally gave satisfactory results. Colorado, with an elevation of from five to six thousand feet, did not have so satisfactory an effect upon consumptives as a more moderate elevation, say, about 1,500 feet. Prompt action should be taken in the case of morbid processes in the pleura, and as to patients with laryngeal phthisis, it was inadvisable to send them to places where they could not obtain the supervision of trustworthy medical men. Cases of fibroid phthisis, he found, were benefited by sending the patients to Muskoka, the North-west or the Rocky Mountains. There were really only four classes of climate available for consumptive patients, viz., the warm

moist, warm dry, cool moist, and cool dry. The warm moist and the cool moist were found to be exceedingly prejudicial to phthisical patients. The warm moist was in fact most deadly, and patients sent to Florida died very speedily.

In Canada, the further patients were removed from the shores of our lakes and rivers, the better their chance of recovery. A porous, dry and sandy soil was essential. Localities with a moderate elevation, a freedom of extremes of temperature or violent variations and a dry atmosphere, exerted a marked beneficial effect in winter. The Rio Grande Valley and some parts of South Africa could be recommended to rich patients. For those with limited means, probably as good results could be obtained from certain parts of Canada, selected with regard to the peculiarities of the patient and the state or form of his disease.

Dr. Peter H. Bryce read a paper on the relation of the profession to sanatoria for consumptives. He gave a sketch of the steps which had been taken by legislation to establish sanatoria and to provide for their financial assistance from municipalities and the Province, and also referred to the local efforts put forth in Toronto. He thought that it was the duty of the profession to take an attitude of supervision in regard to these sanatoria, and to be specially watchful as to the sites selected at which to establish them. Seeing the enormous mortality caused by consumption, the profession must become leaders in the work of providing these curative agencies.

Dr. Ferguson, while agreeing on the importance of providing sanatoria, though that too little attention was paid to the prevention of the disease. Consumption had now been authoritatively declared to be contagious, and the public should be educated as to its dangers. He would even advocate that some attention be given to the subject in the public schools, seeing that so much time was given to the far less important topic of temperance.

Dr. Oldright agreed as to the necessity of paying more attention to prevention, and suggested that a beginning might be made by providing more air-space in the public school rooms.

Dr. Playter advocated a resort to more fresh air in winter as a preventive of consumption, especially in the sleeping apartment.

After some further remarks the meeting divided into sections, and passed the remainder of the afternoon in hearing the reading of papers on different subjects.

ELECTION OF OFFICERS.

At the evening session, Dr. A. A. Macdonald presented the report of the Nominating Committee, recommending the following elections and appointments: President, Dr. A. McKinnon, Guelph; 1st Vice-President, Dr. A. R. Pyne, Toronto; 2nd Vice-President,

W. H. Jeffs, Havelock; 3rd Vice-President, A. S. Fraser, Sarnia; 4th Vice-President, H. H. Sinclair, Walkerton; General Secretary, Harold C. Parsons, Toronto; Assistant Secretary, George Elliott, Toronto; Treasurer, George H. Carveth, Toronto. Place of next meeting, Toronto. The report was adopted without opposition.

The Committee on Legislation presented a report, which was adopted, recounting the steps they had taken in conjunction with other bodies in asking the Government to introduce legislation for the reformation of inebriates on the plan suggested by Dr. Rosebrugh. The Government were considering the matter, but no definite action had yet been taken by them. It was recommended that this year's committee formulate a scheme to organize a defence association to protect members in suits of malpractice.

On the motion of Drs. Ross and Ferguson, the President was authorized to appoint a special committee to promote the interests of the proposed scheme of Dominion registration.

The committee on hospital abuse reported that while the hospitals were intended for the relief of poor people, many persons who were able to pay for their medical treatment and attendance simply paid \$2.50 a week for board, and got their medical treatment free. This was an abuse which should be remedied in the interests of the poor and of the profession. The committee thought that emergency hospitals should only give first aid in cases of accident, etc., and that for subsequent treatment the regular practitioner should be allowed to look after the patient. It was decided to send a circular to the hospitals, asking what position they intended to take in reference to these matters.

The Treasurer's statement showed that the receipts for the year amounted to \$333.80, and that after meeting all expenses the balance on hand was \$48.30.

A grant of \$75 was voted to the Ontario Medical Library Association, and a resolution approving of the association's application for aid to the Government passed.

Dr. Bryce submitted the following motion: That the association re-affirm its views, as set forth in the report *re* consumptive poor, adopted at the annual meeting of 1899, and which contained the following points: (1) That the treatment of tuberculosis in rural sanatoria has been proved to be incalculably superior to anything that could be done in hospitals, and that municipalities are urged to make provision accordingly. (2) That cases unsuitable for sanatoria should be rigorously separated from other patients, and treated in proper isolation. (3) We are strongly of opinion that both the Dominion and Provincial Legislatures, as well as the municipalities and philanthropic and charitable organizations and individuals, should contribute towards the maintenance of the tubercular poor. (4) We think the present an opportune time

for the Dominion and Provincial Legislatures, and Provincial and Local Boards of Health, combining with medical men and others, to determine what are the best situations, methods and conditions for carrying out the idea of the separate housing, care and treatment of the tuberculous, especially of the poor. In doing so we desire to express our appreciation of the action of the Ontario Legislature in unanimously passing the "Act respecting municipal sanatoria for consumptives," thereby supplying practical means for furthering the views of the association regarding the methods of preventing the spread of tuberculosis, and for aiding cases of the disease towards recovery. And further, this association approves of the immediate formation of an Ontario association on the lines of the National Association for Prevention of Consumption and other forms of Tuberculosis in England. And to this end that the President appoint a Committee to meet with representatives of any local associations and other persons who may be interested in the formation of such association, in order that steps may be taken to formally organize at such time and place as may be deemed proper. The resolution was passed unanimously.

Before adjourning the President-elect was installed, and returned thanks for the honor conferred upon him.

[We regret that, owing to lack of space, we had to cut our report almost in half.—ED.]

Is Female Inebriety Increasing in England?—A metropolitan magistrate, Mr. Curtis Bennett, recently stated that when he became a London stipendiary—fourteen years ago—half the charges in which drunkenness was involved were against men. Now, in Marylebone, and he believed at the other metropolitan police courts, three-fourths of the charges of drunkenness were against women.

What is "Osteopathy"?—The first step in a recent attempt to quash the conviction, at Ottawa, of F. G. Clewett, a doctor of "osteopathy," under the Medical Act, led to a discussion of that branch of the healing art. The court—What is the meaning of the word? Counsel—Something to do with bones, my lord—a Greek derivation. I must confess my recollection of classics is so vague that I cannot give the exact word. It was then remarked that osteopathy was "healing by manipulation," and without the use of medicine or surgery by working up nerves that are out of condition. It is practised largely in the United States. In this case the defendant was charged with (1) attempting registration; (2) practising medicine and surgery; (3) using the title of doctor. On the last charge he was convicted and fined, the magistrate holding that the sign "F. G. Clewett, D.O." was a violation of the Act. The Divisional Court granted an order calling on the informant to support the decision of the magistrate at the trial.

Selected Articles.

TEN YEARS' EXPERIENCE IN THE TREATMENT OF ENTERIC FEVER BY SYSTEMATIC COLD BATHING, BASED ON 1,904 CASES.—THE METHOD OF BRAND.*

BY J. C. WILSON, M.D.,

Attending Physician to the Jefferson College Hospital, and to the Pennsylvania Hospital, and
Physician-in-Chief to the German Hospital, Philadelphia;

AND

J. L. SALINGER, M.D.,

Attending Physician to the Philadelphia Hospital, and Assistant Physician to the Jefferson College
Hospital, Philadelphia.

THE following paper represents the results of the labor of a number of persons interested in the subject. The greater part of the work has been carried on under the direction and supervision of one of us (J. C. W.), some of it with the assistance and collaboration of the other (J. L. S.), some portion of it by the latter alone. It has seemed proper, therefore, to present the facts in a conjoint paper, especially as the method has been the same throughout and is in all essential particulars that laid down by the late Ernest Brand, of Stettin. Certain modifications adopted in the later portion of the period as the result of experience, by one of us (J. C. W.), will be described presently.

The following table represents the total number of cases and the mortality arranged with reference to the various institutions in which the patients were treated:

	Cases.	Deaths.	Mortality.
GERMAN HOSPITAL :			
Previously reported ¹	741	55	7.42 per cent.
1898, soldiers ²	147	5	3.4 "
1898, civilians ³	209	20	9.57 "
1899 ⁴	267	26	9.73 "
	1,364	106	7.77 "
PENNSYLVANIA HOSPITAL :			
1896-1899 ⁵	185	15	8.01 "
Soldiers treated, 1898 ⁶	172	11	6.4 "
JEFFERSON HOSPITAL :⁷			
1894-1896	54	4	7.4 "
1899, soldiers	76	4	5.26 "
PHILADELPHIA HOSPITAL :⁸			
1893-1899	53	3	5.66 "
	1,904	143	7.5 "

*Read before the Camden County District Medical Society, February 13th, 1900.

These figures are sufficiently large for generalization, and as they are in close accord with the results obtained from large series of statistics published by other observers, they may be accepted as indicating the death-rate under the bath treatment originally carried out. The mortality of enteric fever treated by systematic cold bathing in accordance with the method of Brand, is between 7 and 8 per cent. The correspondence between our statistics and those of F. E. Hare, of the Brisbane Hospital, Australia, published in 1898,⁸ is curious and instructive. During ten years there were treated in the various institutions named above, by this method, 1,904 cases with 143 deaths—a mortality of 7.5 per cent. During ten years, from 1887 to 1896 inclusive, there were treated by this method in the Brisbane Hospital a consecutive series of 1,902 cases with 143 deaths—a mortality of 7.5 per cent.

The importance of large series of cases for statistical purposes must be emphasized. The following table, compiled from the records of the registry office of the Bureau of Health in the city of Philadelphia is of value as showing the incidence of enteric fever and its death-rate:

	Cases.	Deaths.	Mortality.	
1891	3,591	683	19.2	per cent.
1892	2,304	440	19.0	“
1893	2,519	456	18.1	“
1894	2,357	370	15.6	“
1895	2,748	469	17.0	“
1896	2,490	402	16.1	“
1897	2,994	401	13.3	“
1898	6,097	62	10.4	“
1899	7,385	948	11.8	“
	<u>33,085</u>	<u>4,808</u>	<u>14.5</u>	“

It is thus seen that during ten years there were reported 33,085 cases of enteric fever with 4,808 deaths, a mortality of 14.5 per cent. These figures are of peculiar interest when we compare them with the statistics of the Brisbane Hospital for a period of somewhat less than five years immediately preceding 1887. During this time there were treated in that institution, according to various methods, including cold sponging, comprehensively described under the term expectant, 1,828 cases with 271 deaths, a mortality of 14.8 per cent.

In Philadelphia the maximum mortality in the decade occurred in 1892, according to the above table, and was 19 per cent. The minimum mortality occurred in 1898, and was 10.4 per cent. The table shows also an irregular decrease in the average mortality, which is more marked in the last three years of the period.

The reports to the registry office embrace all cases, including those treated by systematic cold bathing, and as this method has

attracted more attention and been more generally employed toward the end of the decade than at its beginning, when it was regularly carried out only in the German Hospital, the conclusion that the diminished mortality is due to the more general practice of the Brand method is, in view of the uniform reduction in the mortality under that plan, logical. There is nothing in the varying and irregular death-rate of the preceding years of the decade to justify the assertion so often made that the death-rate of enteric fever has, irrespective of treatment, progressively diminished in recent years.

Our statistics are of peculiar value as compared with those of the registry office, since they are based upon the occurrence of the disease among the inhabitants of the same locality, subjected in general terms to the same hygienic conditions and receiving the infection practically from the same polluted water. The difference in the mortality between the collection of cases treated by systematic cold bathing and those treated by all methods, including systematic cold bathing, is about 50 per cent.

The importance of large collections of cases cannot be too emphatically insisted upon. The following table, made up of several consecutive series of cases treated by systematic cold bathing from the time that the method was instituted at the German Hospital, February 1st, 1890, until January 1st, 1897, is of importance in this connection:

1.	40	cases,	no	deaths.		
2.	54	"	1	death;	mortality	1.8 per cent.
3.	68	"	7	"	"	10.6 "
4.	66	"	4	"	"	6.0 "
5.	74	"	8	"	"	10.8 "
6.	108	"	12	"	"	11.1 "
7.	27	"	5	"	"	18.4 "
8.	89	"	1	"	"	1.1 "
9.	64	"	7	"	"	10.9 "
10.	153	"	10	"	"	6.5 "
	<u>741</u>		<u>55</u>			<u>7.42</u> "

The above table shows under precisely the same conditions of general management and treatment a maximum mortality in series 7 of 18.4 per cent., and in series 1 the recovery of forty consecutive cases; whereas, in the total collection of 741 cases the mortality very closely corresponds to the general mortality as shown in our collected statistics and in those of F. E. Hare, Osler, and others, namely, between 7 and 8 per cent.

It is evident that in a disease like enteric fever, conclusions as to the efficacy of any method of treatment based upon short series of cases must, in the nature of things, be misleading.

The statistics of the Bureau of Health are sometimes criticised

by those to whose preconceived notions the high death-rate indicated does violence. It is assumed, and without doubt correctly, that deaths are reported as due to enteric fever which in point of fact are caused by other diseases. It may, however, be assumed with equal probability that deaths are sometimes reported as caused by other diseases, such as appendicitis, peritonitis, bronchopneumonia, etc., which in reality are the result of enteric fever. Such errors are unavoidable, but they do not constitute any noteworthy proportion of the cases, and must be regarded as offsetting each other.

The statistics in our own cases have been compiled with great care, and every effort to eliminate error, from the official records of the respective hospitals.

Analytic studies of the series comprising the 741 consecutive cases treated in the German Hospital to January 1st, 1898, and of the soldier cases treated in the German Hospital during the year 1898, have from time to time been published. The following data have not previously appeared in print:

SUMMARY OF THE CIVILIAN CASES IN THE GERMAN HOSPITAL, TREATED DURING THE YEAR 1898.

Total number of cases 209, deaths 20 ; mortality 9.57 per cent.

Males 115, or 55 per cent.

Females 94, or 45 per cent.

Average age, 25 years.

Average number of baths given, 56.

The Widal test was made in the laboratory of the Hospital in 201 cases with the following result :

Positive in 179 cases, 89 per cent.

Negative in 22 cases, 11 per cent.

Reports were received from the laboratory of the City Hall in 175 cases, with the following result :

Positive in 164 cases, 94 per cent.

Negative in 11 cases, 6 per cent.

Albumin, without blood or casts and in small amount, was present in 176 cases, 84.2 per cent.

Albumin was absent or not noted in 33 cases, 16 per cent.

Nephritis, as indicated by the presence of blood corpuscles, casts or large amounts of albumin, was present in 79 cases, 37.8 per cent.

The diazo-reaction was reported in 52 cases, as follows :

Positive in 35 cases, 67.3 per cent.

Negative in 17 cases, 32.7 per cent.

Relapse occurred in 24 cases, 11.5 per cent.

Hemorrhage occurred in 20 cases, 9.57 per cent.

Perforation " 2 " 0.95 "

Phlebitis " 5 " 2.4 "

Pneumonia " 7 " 3.3 "

Percostitis " 2 " 0.95 "

Otitis media " 1 case.

Sciatica " 1 "

Erysipelas " 1 "

Acute endocarditis " 1 "

Four of the cases resulting in death were complicated with pneumonia; two were complicated with phthisis, and two with peritonitis following perforation.

SUMMARY OF THE CASES TREATED IN THE GERMAN HOSPITAL DURING THE YEAR 1899.

Total number of cases 267, deaths 26 ; mortality 9.73 per cent.

Of these cases there were 173 males, 94 females.

Average age, 26.04 years.

Widal test, Hospital laboratory, positive reaction 231, negative 38.

City Hall : Positive 188, negative 56.

Average number of baths per patient, 45.55.

Albumin was found in 195 cases.

Granular and hyaline casts in 38 cases.

Granular casts alone in 40 cases.

Hyaline casts alone in 21 cases.

Diazo-reaction positive in 104 cases ; negative in 64 cases.

Relapse occurred in 22 cases, 8.24 per cent.

Complications occurred in 74 cases :

Pneumonia, 16 cases.

Femoral phlebitis, 8 cases.

Intestinal hemorrhage, 19 cases.

Pleurisy, 5 cases.

Severe bronchitis, 5 cases.

Otitis media, 3 cases.

Severe epistaxis, 3 cases.

Furunculosis, 3 cases.

Erythema, 2 cases.

Peripheral neuritis, 2 cases.

Erysipelas, 2 cases.

Peritonitis, 1 case.

Perforation, 2 cases.

Malarial infection, 1 case.

Gonorrhoeal urethritis, 1 case.

Appendicitis, 1 case.

Meningitis, 1 case.

Abscess of the external auditory meatus, 1 case.

Pregnancy, 1 case.

Abortion, 1 case.

Stomatitis, 1 case.

Ischio-rectal abscess, 1 case.

Pulmonary tuberculosis, 1 case.

Urticaria, 1 case.

Advanced atheromatous degeneration of the arteries, 1 case.

Of the fatal cases, death was due to

Intestinal hemorrhage in 5 cases.

Pneumonia in 4 cases.

Profound infection in 13 cases.

Peritonitis following perforation in 1 case.

Shock following perforation in 1 case.

Exhaustion during relapse in 1 case.

Nephritis in 1 case.

SUMMARY OF THE CASES TREATED IN THE PHILADELPHIA HOSPITAL IN THE SERVICE OF DR. SALINGER.

Total number of cases 63, deaths 3 ; mortality 5.66 per cent.
 Average number of baths per patient, 24.
 Hemorrhage occurred in 6 cases, 11.3 per cent.
 Phlebitis in 3 cases, 5.6 per cent.
 Relapse in 6 cases, 11.3 per cent.
 Pneumonia in 3 cases, 5.6 per cent.
 Perforation in 1 case, 1.9 per cent.

SUMMARY OF THE CIVILIAN CASES TREATED IN THE JEFFERSON HOSPITAL.

Total number of cases 54, deaths 4 ; mortality 7.4 per cent.
 Average number of baths per patient, 22.
 Hemorrhage occurred in 5 cases, 9 per cent.
 Relapse occurred in 5 cases, 9 per cent.
 Phlebitis occurred in 3 cases, 5.5 per cent.
 Pneumonia occurred in 1 case, 1.8 per cent.

A study of the facts as above summarized justifies the following affirmations :

1. That the treatment by systematic cold bathing does not avert or diminish the frequency of hemorrhage.

2. That the frequency of this occurrence of perforation is diminished. F. E. Hare, in 1,173 cases during the first three years of the bath treatment, also observed perforation in 35 cases, less than 3 per cent.⁹

3. That it diminishes the danger of complications, especially those relating to the respiratory and circulatory tracts.

4. That it is apparently attended by a somewhat increased frequency of relapse, though the general statistics in regard to relapses are entirely unsatisfactory. If relapses are more common in bathed cases the explanation is probably correct that owing to the reduction in mortality a large number of cases which under other forms of treatment would have perished in the primary attack survive to suffer the relapse.

5. That the treatment is attended by the occurrence of albuminuria in a large percentage of the cases. This albuminuria shows itself in two forms: (a) As a faint reaction without casts or other indications of renal disease; (b) cases in which albumin is present in considerable amounts with blood corpuscles and casts.

We have been led to believe that both these forms of albuminuria are much more common in cases treated by cold bathing than those treated upon the expectant plan, and that the difference between the two forms is merely one of degree. Our observations, however, justify the assertion that in by far the largest proportion of the cases the albumin disappears from the urine during the course of the attack, and that at the end of convalescence the urine is entirely normal. In a limited number of cases a history of

previous disease of the kidney has been obtained and, in a very few instances patients who develop albuminuria during the attack have left the hospital with evidences of nephritis. In this connection the oft-quoted observations of Roque and Weil are so important that it may not be amiss to repeat them. These investigators asserted that "in typhoid fever left to itself the toxic products manufactured by the bacillus and the organism itself are eliminated in part during the illness. The urotoxic coefficient is double the normal; but this elimination is incomplete and is only completed during convalescence, for the hypertoxicity continues for four or five weeks after the cessation of the fever. In typhoid fever treated by cold baths the elimination of toxic products is enormous during the illness. The urotoxic coefficient is five or six times the normal. The hypertoxicity diminishes as the general symptoms mend and as the temperature falls, so that when the period of apyrexia sets in the elimination of toxins has ceased."

6. That it has no influence in increasing the danger of otitis media. In the civilian cases in the German Hospital in 1898, one case of otitis media occurred in 209 cases, 5 per cent. In the series of 1899 this complication was noted in three instances in 267 cases, 1.1 per cent.

It is not our intention at present to discuss the details of the bathing nor the general management of the patient. All these are now generally understood. The modifications of the method as originally formulated by Brand, which have been gradually adopted as the result of our experience in the service at the German Hospital, are as follows:

1. The administration of purgatives early in the attack. Calomel is used for this purpose, sometimes in fractional doses, more frequently in doses of from 3 to 5 decigrams. If necessary, this is followed in the course of several hours by a mild saline aperient. The administration of these purgatives is usually repeated once or twice in cases that come in sufficiently early, but they are never administered to those admitted to the wards after the tenth day of the attack.

2. External applications. Cold compresses or ice-bags are applied to the abdomen in all cases of abdominal tenderness or spontaneous pain and in cases of hemorrhage. In some instances of tympanitic distention of the abdomen turpentine stupes are applied at intervals in addition to the external use of cold.

3. Medicines. The treatment by systematic cold bathing is a routine method and is instituted in all suitable cases. The contraindications are the evidences of hemorrhage, perforation or peritoneal infection. Each patient, however, is closely watched, and the conditions of individual cases receive proper consideration. Appropriate medicines are administered in response to

special indications; hence the quantity of alcohol varies in different cases, and such drugs as the aromatic spirit of ammonia or ammonium carbonates, strychnia, caffeine, the bromids, chloral, opium and its derivatives and hyoscin are occasionally used. Inhalations of oxygen are sometimes employed. The proportion of cases requiring any medication whatever, except the early laxatives, throughout the attack is very small, not exceeding 10 per cent. On the occurrence of defervescence dilute hydrochloric acid is given for a short time, and later, if anemia persists, some form of iron, usually Basham's mixture or one of the proprietary preparations of the organic salts of iron.

4. The temperature at which the bath is administered. During the whole course of the attack whenever, three hours after a bath, the temperature taken in the mouth or in the axilla, as the case may be, reaches 101.4 degrees F., the bath is repeated. Brand's original formula fixed the rectal temperature at which the bath should be repeated at 39 degrees C., which is equivalent to 102.2 degrees F. This arrangement was arbitrary and based upon an approximately average temperature of 39 degrees C. during the course of the attack. In this country it is not generally customary to take rectal temperatures in the acute diseases of adults, and temperatures are usually taken in the axilla. The difference between the rectal temperature and the axillary temperature varies according to circumstances, but is nearly 1 degree F. It is for this reason that we have adopted the rule to repeat the bath when the axillary temperature at the end of three hours has reached or exceeded 101.4 degrees F.

5. Continuation of the baths during convalescence. Until within the past year the baths were practically discontinued as soon as the temperature ceased to rise above this level. A very remarkable fact caused us to modify this rule; namely, every now and then a patient whose temperature no longer rose to 101.4 degrees F. requested to be bathed, saying that it made him more comfortable. In consequence of this we have adopted the rule of giving one or two plunges a day during the defervescence, and a plunge every day, or every second day, for a short time after the defervescence has been completed. The result has been entirely satisfactory and has appeared to us to hasten the convalescence.

6. The location of the tub with reference to the patient's bed. According to the formula of Brand, a movable bath-tub was placed at the side of the bed and the patient was lifted from the bed into the bath or entered the bath with the assistance of the attendants. This was the invariable method at the German Hospital until the beginning of the year 1897. This method was severely criticised as exposing the patient to serious risks in consequence of the change of posture and muscular effort on his part. A careful study of

the whole matter led us to modify this procedure. In the graver cases it is of course necessary to lift the patient into the tub, but as improvement takes place, after a series of baths the patients are encouraged to help themselves, and it was soon found that they were able to enter the bath with but little assistance. A different arrangement was then made. A stationary tub was placed at the end of the small fever wards. The severer cases were placed near the bath and were carried by the attendants from the bed to the bath and back. The milder cases and the improving cases were placed in the more distant beds and walked to the bath with the assistance of the nurses.

The fever wards are small, each containing six beds, the most distant of which in the men's ward is a little over six meters from the bath, the most distant in the women's ward being 5.75 meters from the bath. Adjacent to these wards are other small wards in which fever patients can be placed with separate tubs, but in all instances the improving cases and the milder cases are wrapped in a sheet, rise from their beds every three hours, and are assisted to the tub by the attendants, and returned in the same manner after the bath. Each individual case is carefully studied, and if any contraindication to this procedure is discovered the patient is carried by the attendant from the bed to the tub and back. In no instance have we seen any reason to believe that this modification has had unfavorable effects. On the contrary, it has appeared to be of great service and has exerted a very favorable influence upon the course and symptoms of the attack, particularly upon the condition of the respiratory and circulatory functions.

In a collection of abstracts made by Professor Alfred Stengel and Dr. D. L. Edsall in an *American Year-Book of Medicine and Surgery*, by Gould, 1900, appears the following remarkable statement in regard to this matter: "We see no reason for flying in the face of fate in allowing patients to walk to the tub. It is useless for the author to plead that no evil results have occurred. The practice is indefensible."

We regret this inconsiderate criticism, because it may lead some to equally inconsiderate and hasty conclusions. Opinion and authority, which are the strength of the law, are the weakness of medicine—an art the practice of which is based upon carefully observed and correlated facts. The practice of permitting the milder and improving enteric fever cases to walk with the assistance of the attendants a few meters, in no case exceeding six, to the bath and back, has now been practised in the service at the German Hospital for more than three years.

Since the beginning of the year 1897 the following cases were treated by systematic cold bathing with the procedure in question:

	Cases.	Deaths.	Mortality.	
1897.....	153	10	6.5	per cent.
1898—Soldiers.....	147	5	3.4	“
—Civilians.....	209	20	9.57	“
1899.....	267	26	9.73	“
	<hr/> 776	<hr/> 61	<hr/> 7.8	“

These figures abundantly prove that the practice needs no defence. They constitute the argument from experience. Aside from these favorable empirical results there are theoretical reasons for a change from traditional methods in treating cases of enteric fever.

Among the more striking morbid phenomena in the clinical picture of this disease under drug treatment, always inadequate, are the evidences of the passive visceral congestions to which progressive impairment of the heart's force and the circulatory apparatus in general contribute. Among these are bronchitis, broncho-pneumonia, and hypostatic congestion. There are others of which one can speak less positively, since they are due in part to the action of toxins. Examples of these are somnolence, wandering delirium, gastrointestinal catarrh, intestinal paresis, to which the tympany is due. Both these sets of phenomena are favored by the log-like continued passive recumbency of the patient. The muscular atrophy due to long disuse and the diminution in the activity of the toxin-laden serous fluids throughout the body must also be considered.

The majority of patients who suffer from enteric fever are adolescents and young adults in the most active period of life. The disease develops with comparative rapidity and is of long course. Have we not in enforced continuous repose been adding to the pathologic process a secondary disturbance of nutrition, due to disease of function? Our experience during three years justifies us in replying in the affirmative. The dangers of unrecognized enteric fever—the so-called walking typhoid—are well known, and long journeys undertaken by the patient after the disease has made some progress, in order that he may reach his home, have been regarded as increasing the risk of the disease. Under certain favorable conditions, however, as was shown during the Spanish-American war, in the transportation by train of hundreds of soldiers suffering from enteric fever from the practice camps to Northern hospitals, these risks are insignificant; but in the procedure under discussion the conditions are wholly different. The patient, if he be not too ill, is made to take a few steps from his bed to the bath and back with the assistance of trained and skilled attendants. He thus brings into use at rhythmic periods, since the bath is given regularly every third hour, the muscles of

his body, without effort and without risk, and by this rhythmic stimulation of habitual functions minimizes certain of the pathologic processes.

7. The method of Brand has been designated the treatment by systematic cold bathing. The measure of its success is largely determined by the period at which it is instituted in any given case. The sooner, the better. Under the ordinary conditions of hospital practice few cases are received until the end of the first week, the great majority later than this, and a considerable number as late as the middle of the third week. It is obvious that the treatment by systematic cold baths instituted late in the course of the attack, must largely fail as a plan. There is nothing specific in the individual bath. It is to the rhythmic repetition of the stimulation of physiologic processes and of the modifications of pathologic processes brought about by a succession of baths commenced early in the course of the attack that the favorable results are to be attributed.

Finally, it is important to understand that the plan does not merely constitute an antipyretic treatment. Much confusion and misunderstanding have arisen from regarding the treatment only in this light. Brand and his followers have constantly insisted upon the fact that the lowering of temperature is one of the incidents of the treatment, not its only or even its main purpose. It may here be affirmed that mere antipyretic measures, therefore, however efficient, can not replace the hydrotherapeutic procedure, and have in no instance yielded in large series of cases results at all to be compared with the Brand method.—*Philadelphia Medical Jour.*

REFERENCES.

- 1 *Medical News*, December 6th, 1890. *Ibid.*, November 26th, 1892. *Ibid.*, November 25th, 1893. "An American Text-Book of Applied Therapeutics," p. 240 *et seq.* "American System of Practical Medicine," vol. 1, p. 220. *Trans. College of Physicians*, Philadelphia, 1898.
- 2 *Trans. College of Physicians*, Philadelphia, 1899; compiled by Dr. H. F. Page, Assistant Physician to the Hospital.
- 3 Compiled by Dr. H. F. Page.
- 4 Compiled by Dr. Whiting, Registrar.
- 5 Compiled by Dr. Salinger.
- 6 Cases under the care of Dr. Wilson and Dr. Salinger; compiled by Mr. Joseph J. Griffin.
- 7 Compiled by Dr. Salinger.
- 8 The Cold-Bath Treatment of Typhoid Fever.
- 9 *Loc. cit.*, pp. 76, 104.

A FEW INSTANCES OF THE USE OF PROTONUCLEIN IN CONTAGIOUS AND NON-CONTAGIOUS DISEASES.

BY WESLEY G. BAILEY, M.D., PEKIN, ILL.

THIS comparatively new substance has played an important role in the armamentarium of the up-to-date physician for at least eighteen months or two years. These two years have conclusively proven that protonuclein has come to stay, as its action is not ephemeral; for certain diseases are not the terrors even to the minds of the laity or the profession since its introduction. To be practical, it is necessary or usual to illustrate one's points by the citation of cases. We will present a few for your consideration.

CASE 1. Female, aged 5, presented every feature of the clinical aspects of true laryngeal diphtheria (Klebs-Loeffler), which was proven by microscopic diagnosis. This child had been ill three or four days before the physician was summoned; that foul odor so characteristic of the disease permeated the atmosphere of the whole house. Little did the writer think that this child's life could be saved, so livid were the lips, swollen the neck, and stertorous the breathing. The vigorous use, locally, of the *protonuclein special powder* was immediately ordered every half hour; previous to the local use of protonuclein, this little patient could not swallow anything, was fast becoming comatose, and was with difficulty aroused sufficiently to allow the perfect administration of the remedies. After several insufflations of the powder, and during a violent coughing spell, immense pieces of false membrane were thrown out; at this time the internal use of the three-grain tablets every three hours was commenced. From this time on our patient made a rapid, uneventful recovery.

CASE 2. Female, aged 24, multipara. This case also gave every indication of true Klebs-Loeffler diphtheria, tonsillar and pharyngeal (diagnosis confirmed by culture and microscope). This patient also had chronic Bright's disease, from which she suffered periodically with general edema, etc. Several months previous to the attack of diphtheria she had suffered as mentioned, and was placed upon the three-grain protonuclein tablets for three or four months, which was considerable time after the general dropsy had ceased. This patient now thought herself nearly well and discontinued the use of the tablets as above, when she was suddenly stricken with diphtheria; this was several weeks after the discontinuance of the protonuclein tablets. Strange to say, this case, though an adult, was nearly asphyxiated on account of the turgid mucous membrane; just at this time we were summoned in haste; protonuclein again scored a signal victory,

after thorough and vigorous use locally and internally. Though on any treatment such a patient could scarcely be strong and well again, yet inside of two weeks our patient was up and attending to light household duties. In this family were two small children, aged respectively two and a half and four, who were constantly about the room, and even slept in the same bed with their mother (the diphtheria case), both before and after the diagnosis was made. We immediately administered to each child a three-grain tablet of protonuclein every three hours, and they did not contract the disease.

CASE 3. Klebs-Loeffler diphtheria (microscopic diagnosis); male, aged 23. This was a mild case, and under the control of the special powder locally and three-grain tablets internally made a complete recovery in eight days.

CASE 4. Streptococcus diphtheria (diagnosis by microscope); male, aged 7. This child has had since its second year similar attacks two or three times yearly. After a thorough application of the special powder locally and three-grain tablets internally, we recorded a "good recovery," and now, though two years have elapsed since, there has been no return of the disease.

In chronic Bright's disease protonuclein is, therapeutically, without a peer in the opinion of the writer. Eleven cases have been treated with it in our experience, and while we know the inevitable end of such cases is an untimely death, yet we are certain that in a number of instances life has not only been made easier, by insuring more nearly perfect tissue metamorphosis, but actually prolonged by its use extended over a period of many months. We respectfully ask each physician on reading this to calmly think what "more nearly perfect tissue metamorphosis" means to a sufferer from chronic Bright's disease, and then ask himself if this can be performed as well with any other remedy.

In tubercular joint affections we have used protonuclein in but one case, and that has the following history: Mother died of pulmonary tuberculosis, and maternal grandfather, though meeting death by an accident, was in the last stage of phthisis pulmonalis; paternal grandfather died of tubercular phthisis; child, a male, at the time of the first exhibition to him of protonuclein, was 5 1-2 years old. This was two years ago. At two years of age the patient had scarlatina, followed by infantile paralysis of the left thigh and leg; subsequently tubercular hip-joint and ankle disease developed in the affected leg. Protonuclein in three-grain tablets was given every three hours, together with cod-liver oil. Early in the spring of 1896 the hip and ankle required operative measures, and was accordingly referred to Dr. J. W. Hairgrove of Jacksonville, Ill., for operation. Dr. Hairgrove has kindly furnished us with his notes while the case was in his care. We append them below:

"L. A., entered May 22, 1896. Operation under ether narcosis, May 25, followed by but slight shock. Tuberculous abscess extending around the ankle curetted and through gauze drain inserted. Large abscess on the inner anterior aspect of the thigh opened and curetted, counter opening over the head of the femur and through gauze drain inserted. After-treatment was antiseptic irrigations through and through with gauze packing. Temperature ranged about 99.5 preceding and for some time after the operation.

"On June 14, was noted some swelling around the ankle. It is evident that some irritation still exists about the epiphysial ends of the tibia and fibula. However, nothing operative was done until July 7, so that the patient might have an enjoyable holiday on the Fourth of July.

"At the operation, three incisions were made about the ankle, some curetting, but no pus was discovered. The discharging fistula at the thigh was widened to improve drainage, and packed with gauze. Henceforth the discharge rapidly decreased, and the patient went home on July 23.

"During the whole course of treatment he took protonuclein and cod-liver oil.

"I regret that I am unable to give more definite notes of the case. While there was no tubercle bacilli discovered at any time, we must remember how difficult it is to find them in this pus; it can generally be done by the most patient and exhaustive effort only."

The little fellow is now plump and hearty, no swelling or tenderness of ankle or hip, and though the affected leg is some inches shorter than the other, he can use the short one to support his weight without difficulty; he is attending public school, and is anything but a picture of tuberculosis.

We claim that such results are unattainable without protonuclein. We further wish to say the child has not taken cod-liver oil for six months, but has been constantly on protonuclein.

Three cases of scarlatina have lately been under our care, and throughout the disease were given nothing but protonuclein, with the exception of a simple diuretic on two days only. Two of the cases were light; the other developed a severe cervical lymphadenitis, which, under the vigorous use locally (in throat) and tablets internally, was rapidly disappearing when, at this time, we left directions and ceased to make visits. We learned from the grandfather that the mother of the child ceased the insufflations when our visits ceased; the gland again rapidly increased in size, and was opened several days later by another physician. In this same family were three other children and four adults, who were immediately put upon one three-grain tablet every three hours; none of these last seven people mentioned contracted the disease.

We can not help commenting that no better prophylactic in-

acute infectious diseases is known; and further, that the scope of usefulness to which protomucin can be put is almost unlimited.—*Journal of the American Medical Association.*

PROFESSOR MANGES ON HEROIN.

THE extensive use made of Heroin in clinical practice during the past one and one-half years, and the abundant literature that has already appeared on this new preparation, enables us to formulate some positive conclusions as to its definite status in the *materia medica*. One of the most striking features of this drug is its remarkable action upon the respiratory organs, its effects consisting in the reduction of the number of respirations, with an increase of their force. Besides this it exerts a sedative influence upon the air passages, as evidenced by the alleviation of cough and irritation. Heroin has also been employed as a general analgesic, but it is yet too early to form a positive idea of its utility in this direction. It is worthy of note that in the literature thus far published, very little reference has been made to after-effects, and these, for the most part, have been of mild degree and observed chiefly in cases where the dose has been excessive. Like any active remedy, heroin must be used with proper discrimination, and in doses adapted to the age and to the indications present.

Professor Manges (*New York Medical Journal*), who has made a most exhaustive clinical study of heroin, writes as follows on this point: "The general conclusion is that these effects have occurred in a surprisingly small percentage of cases, when it is borne in mind that in so many instances the larger doses (one-sixth of a grain) have been employed. Even the effects which have been recorded are only relatively simple, and in no case was there any serious effect noticed. These after-effects are decidedly of less frequent occurrence and of milder degree after heroin than those from morphine or codein." If attention is paid to these points no special precautions are necessary in the use of heroin, except such as apply to any remedy in the pharmacopeia. To obtain the best results it should be administered in much smaller doses than the opium alkaloids, and these may later be increased, if necessary.

Professor Max Einhorn (*Philadelphia Medical Journal*) concludes on the ground of his experience: "It will be readily seen from the above that we possess in heroin a very valuable therapeutic agent. It principally allays cough and eases respiration, but it has also general analgesic properties which render it of benefit in most painful affections. Except slight dizziness and occasional dryness in the throat, which I found but rarely, I have never seen any unpleasant symptoms even from a prolonged use of heroin, and I can recommend it as a very valuable remedy."

The Canadian Journal of Medicine and Surgery

J. J. CASSIDY, M.D.,

EDITOR.

69 BLOOR STREET EAST, TORONTO.

W. A. YOUNG, M.D., L.R.C.P.LOND.,

BUSINESS MANAGER.

145 COLLEGE STREET, TORONTO.

Surgery—BRUCE L. RIORDAN, M.D., C.M., McGill University, M.D. University of Toronto; Surgeon Toronto General Hospital; Surgeon Grand Trunk R.R.; Consulting Surgeon Toronto Home for Incurables; Pension Examiner United States Government; and F. N. G. STARR, M.B., Toronto, Lecturer and Demonstrator in Anatomy, Toronto University; Surgeon to the Out-Door Department Toronto General Hospital and Hospital for Sick Children.

Clinical Surgery—ALEX. PHIMROSE, M.B., C.M. Edinburgh University; Professor of Anatomy and Director of the Anatomical Department, Toronto University; Associate Professor of Clinical Surgery, Toronto University; Secretary Medical Faculty, Toronto University.

Orthopedic Surgery—B. E. MCKENZIE, B.A., M.D., Toronto, Surgeon to the Toronto Orthopedic Hospital; Surgeon to the Out-Patient Department, Toronto General Hospital; Assistant Professor of Clinical Surgery, Ontario Medical College for Women; Member of the American Orthopedic Association; and H. P. H. GALLOWAY, M.D., Toronto, Surgeon to the Toronto Orthopedic Hospital; Orthopedic Surgeon, Toronto Western Hospital; Member of the American Orthopedic Association.

Oral Surgery—E. H. ADAMS, M.D., D.D.S., Toronto.

Surgical Pathology—T. H. MANLEY, M.D., New York. Visiting Surgeon to Harlem Hospital, Professor of Surgery, New York School of Clinical Medicine, New York, etc., etc.

Gynecology and Obstetrics—GEO. T. MCKEUGH, M.D., M.R.C.S. Eng., Chatham, Ont.; and J. H. LOWE, M.D., Newmarket, Ont.

Medical Jurisprudence and Toxicology—N. A. POWELL, M.D., Toronto, and W. A. YOUNG, M.D., L.R.C.P. Lond., Toronto.

Medicine—J. J. CASSIDY, M.D., Toronto, Member Ontario Provincial Board of Health; Consulting Surgeon, Toronto General Hospital; and W. J. WILSON, M.D., Toronto, Physician Toronto Western Hospital.

Clinical Medicine—ALEXANDER MCPHEDRAN, M.D., Professor of Medicine and Clinical Medicine Toronto University; Physician Toronto General Hospital, St. Michael's Hospital, and Victoria Hospital for Sick Children.

Mental Diseases—EZRA H. STAFFORD, M.D., Toronto, Resident Physician Toronto Asylum for the Insane.

Public Health and Hygiene—J. J. CASSIDY, M.D., Toronto, Member Ontario Provincial Board of Health; Consulting Surgeon Toronto General Hospital; and E. H. ADAMS, M.D., Toronto.

Pharmacology and Therapeutics—A. J. HARRINGTON, M.D., M.R.C.S. Eng., Toronto.

Physiology—A. B. EADIE, M.D., Toronto, Professor of Physiology Woman's Medical College, Toronto.

Pediatrics—AUGUSTA STOWE GULLEN, M.D., Toronto, Professor of Diseases of Children Woman's Medical College, Toronto.

Pathology—W. H. PEPLER, M.D., C.M., Trinity University; Pathologist Hospital for Sick Children, Toronto; Demonstrator of Pathology, Trinity Medical College; Physician to Outdoor Department Toronto General Hospital; Surgeon Canadian Pacific R.R., Toronto; and J. J. MACKENZIE, B.A., M.B., Bacteriologist to Ontario Provincial Board of Health.

Ophthalmology and Otolaryngology—J. M. MACCALLUM, M.D., Toronto, Assistant Physician-Toronto General Hospital; Oculist and Aurist Victoria Hospital for Sick Children, Toronto.

Address all Communications, Correspondence, Books, Matter Regarding Advertising, and make all Cheques, Drafts and Post-office Orders payable to "The Canadian Journal of Medicine and Surgery," 145 College St., Toronto, Canada.

Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., must be in our hands by the fifteenth of the month previous to publication.

Advertisements, to insure insertion in the issue of any month, should be sent not later than the tenth of the preceding month.

VOL. VIII.

TORONTO, JULY, 1900.

NO. 1.

Editorials.

DOES VACCINATION PROTECT AGAINST SMALLPOX?

A good deal of importance is attached to isolation and disinfection, as means of protection against smallpox, and no modern sanitarian can doubt their value, although they are not always available at the times and places where they are most required. Now, the inoculation of a human being with the contagion of cowpox protects the person thus inoculated against smallpox; or, at least against a

severe or fatal attack of that disease, even after exposure to infection, and in instances in which isolation and disinfection are not employed. The truth of this observation may be illustrated by the relation of certain facts observed during the most recent epidemic of smallpox in Ontario. On May 11th, 1900, a traveller named F—, having arrived at Vancouver from Australia, continued his trip eastward, became sick on the railway train, and was removed to the General Hospital, Winnipeg. Within forty-eight hours after his admission he died, without having exhibited any signs of an eruptive disease. The body was coffined and put into the morgue, pending instructions from the friends of the deceased as to its disposal. After word had been received from them, the body was taken from the coffin, and was then found to exhibit so many evidences of subcutaneous hemorrhage, that it was decided the man had died of malignant smallpox. Directly or indirectly, several distinct outbreaks of smallpox were traced to this man. One of these, which occurred at Fort William, Ont., was a mild case, which was not diagnosed as smallpox by the attending physician.

Owing to the fact that the Fort William case received the visits of friends during his illness, ten distinct cases of smallpox were traceable to him. At the end of three weeks he was convalescent, and for a week's time before the exposed persons had sickened, he went abroad, meeting many persons on the streets and in public places, shaking hands with his friends, got shaved in a barber's shop, etc., etc. An interesting question at once arises: As the time from the beginning of the eruption until the patient ceases to be infective is fifty-six days, and as isolation and disinfection were not practised in the case of this individual, did vaccination protect vulnerable persons, who were exposed to the contagion of smallpox from him? It must be premised here that no public vaccination and almost no private vaccination, had been done in Fort William for the ten previous years. As soon as the nature of the disease in this individual was discovered, general vaccination was begun at Fort William. Hundreds of persons, young and old, vaccinated and unvaccinated, presented themselves at the public stations, believing that vaccination was protective against smallpox. Among those who had been exposed and subsequently vaccinated, a large number were protected and

did not develop the disease. Others, on the contrary, did develop smallpox, but the vaccination ran concurrently with the smallpox, rendering that disease much milder, a circumstance which has frequently been observed during similar epidemics elsewhere. When we think that every vulnerable (unvaccinated) person, who visited the Fort William case, contracted smallpox, it is hardly supposable that of all the persons whom he casually met, within three weeks of the time after he had taken smallpox, not one individual was infected by him. And if he was infective, why did not the disease develop in those who were exposed? The only adequate reply is that, though these persons had been exposed to contagion, they were subsequently protected by vaccination. In corroboration of this view, it may be mentioned that, in Essex County, Ont., the vaccination of an entire community in time to afford protection, has prevented the appearance of a single case of smallpox, even though many persons had been exposed to the contagion.

It may be further remarked that, of the ten Fort William cases, three died, and these persons were reported to have not been vaccinated.

The protective power of vaccination may be further proved by the facts given in the report of the physician in charge of the cases of smallpox in Tilbury Township, Ont., during November and December, 1899, which are published on page 10 of the Annual Report of the Provincial Board of Health for 1899. They are as follows: "Of 28 persons exposed to smallpox, who exhibited good, old cicatrices, all escaped; of three with poor, old cicatrices, all took the disease mildly; of 20 vaccinated successfully, all took the disease in a mild form; of 27 unvaccinated persons, all took the disease." Then, as indicative of the superior protection afforded by vaccination, we may refer to a personal experience in the days when it was customary to treat smallpox, as well as other diseases, at the Toronto General Hospital. Vaccination was, in most instances, the only protection the visiting physicians had, yet so complete did it prove, that we do not recollect an instance in which a hospital physician in Toronto caught smallpox. Facts like these are of more value than theories. Isolation and disinfection are preservatives of a limited value against smallpox, even in countries like Canada, where public hygiene is

enforced; but medical gentlemen who inveigh against vaccination should counsel their friends and clients to avoid travelling in other parts of this continent, in which isolation from smallpox is not practised, and in which the sole trustworthy preventative is vaccination.

J. J. C.

THAT "BETE NOIR," HOSPITAL ABUSE.

THE subject of hospital abuse is one that is attracting more and more attention each year. The evil exists not only in Ontario, for we find there is trouble from this source wherever hospitals are numerous. In this Province we had in 1898 some 48 hospitals, according to the Government report for that year, and others have been opened since that time. Our Legislature grants \$110,000 per annum to be divided per capita for the poor in these hospitals. The Government grant was, up to the last few years, 30 cents per patient per diem; but hospitals multiplied so rapidly, and people were so rapidly becoming educated to the hospital idea, that the above definite grant was decided upon, with the result that the per diem allowance is now about 20 cents, or a reduction of one-third.

Patients are admitted to hospitals at rates varying from \$2.80 to \$15 or \$20 per week, according to accommodation, etc.

Patients entering a hospital on an order from their municipality pay \$2.80 per week, which is the lowest rate. This rate is also given to any patient who is willing to take what is called the public ward. This amount is not sufficient to pay for board alone; but as all patients in these wards are either paupers, and supported by their municipality, or people who are supposed not to be able to pay their way in full, but wish to do what they can towards their own maintenance, the Government grant is used to make up the loss, otherwise the hospitals could not exist. Patients of this class have always received free attendance from their doctor, whether medical or surgical.

It is from this condition of things that one of the worst abuses of hospitals has come. *We have known wealthy patients* take their bed in the public ward and in this way receive not only their medical or surgical treatment free, but at the same time, the 20 to 30 cents per day from the Government for their support. As *tax-payers*, medical men have a right to demand that the proper author-

ities investigate and remedy this evil; but it is not with this part of the subject we are concerned at present. As physicians, we have our time and labor taken by these people under false pretences, *i.e.*, when they understand what they are doing, but we have good reason for believing they do not always know. Many have never been in a hospital before, and on their arrival are told the rates are from \$2.80 up. Many, from notions of economy, select the \$2.50 bed, and we have heard of their being informed that this sum included the best medical or surgical skill on the staff.

If the hospitals would inform *all applicants* for beds, other than charity cases, that their treatment was not included in the hospital rates, and was a private matter with their medical attendant, it would, in our opinion, remove a great deal of the trouble and leave the attendant free to charge or not, according to circumstances. The same principle should hold with emergency hospitals, but here we find other abuses of a new and more exasperating kind.

A man meets with an accident, is rushed off to the Emergency Hospital, where his injuries are attended to by the resident staff and a small charge made. He then says to his family doctor, he will go to the hospital again, as the charges are lower than he has paid before. This is making the hospital a competitor for practice with the medical men of the district, with the result that several doctors report a marked falling off in their incomes. It seems to us that our taxes should not be used to bonus an institution to compete with us for work, and that with an unfair advantage over us. The Ontario Medical Association at its recent meeting recognized the above condition of affairs, and adopted a report, brought in by its committee, endorsing the following principles:

1. That all patients in hospitals paying their own hospital maintenance must be informed that their treatment in hospital is a private matter between themselves and their doctor, and not covered by the hospital charges.

2. That hospitals should not be competitors with the profession for practice.

3. That no charge *per se* should be made at emergency hospitals for treatment, but only for dressings, room, board, etc., and then patient only to receive first aid, and at once turned over to his family physician, or in case he has none, to a member of the hospital staff, non-resident.

4. That lodges, corporations, and firms should not be allowed to send men into hospital at a \$2.80 rate without paying extra for the medical attendance.

5. That in the out-door department no prescription be allowed to leave the building.

This report was unanimously adopted, the Committee continued for another year to look after the matter, and the Secretary of the Association instructed to write each hospital in the Province asking what its attitude is in the matter. We will be interested to note the replies.

W. J. W.

THE ATLANTIC CITY MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

A SCRATCH of the pen and a few trite words are indeed a poor attempt to convey even an impressionist's picture of the meeting of the American Medical Association of 1900. The place of meeting, the far-famed Atlantic City, was ideal, a little world of fine hotels, splendid halls, also innumerable well-adapted places for the different sections to hold their separate meetings. The physicians were present in very large numbers, in fact the Doctor and his wife from everywhere crowded and brightened by their presence alike hotel, drawing-room, board walk, pier, band concert, reception, dance, and, alack! side-shows galore, and for the nonce the voice of the darkey changed the burden of its song from "Colonel" to "Doctah," by which name he addressed everyone in sight. Many members as the Convention numbered, they

Scarcely rippled the living tide,
That ebbed and flowed
Through the busy streets

of the wonderful city by the sea.

The suggestion has frequently been made that it would be advisable to have less alluring entertainments, prepared by the Entertainment Committee, for the members of the Medical Association, and more strict adherence to work observed. However, never could a Convention be more royally entertained by the ladies of Atlantic City, the State Medical Society of New Jersey, and generally by "mine host" of the numerous palatial hotels, and never,

it was stated, did members attend the meetings of their special sections more regularly; the programme was so well arranged, business and pleasure so dove-tailed that, as one said, "Everybody went to everything." We here reproduce a half-tone illustration of two of the overworked (?) members of the Association. This is the only one that can be bought, as the taking of it broke the camera.

The dinner of Medical Journalists at Hotel Dennis took place the evening previous to the opening of the Convention. They truly turned their "ploughshares into pruning-hooks," *i.e.*, exchanged the pen for the oily tongue of a smooth speaker, and over all hovered the spirit of Love. This Love who hovered is not the uni-



Two of the overworked (?) delegates to the American Medical Association.
Which two?

versal preparation, but a product of St. Louis, Mo., and patented. The trade-mark on the special brand is I. N. Love reflected in a *Mirror*.

It was a great seeming pleasure to all present to meet, greet, and become living realities to one another, instead of paper people, only read, but never looked upon. On the morning of the opening session the interior of the great hall was an imposing sight, with its festooning of blue and white bunting, baskets of natural flowers, and its sea of faces. Each State being designated by a large sign, it was rendered an easy task to find a friend, as he could be quickly located under his own fig-tree.

The President's address was practical, and had a note of business reform in it that made it useful as well as interesting; he did not attempt any "flight of the imagination," but selected his subject and stuck to it.

In the different sections many papers of great value were listened to and discussed with animation. The first day was brought to a close by a concert, reception and dance, tendered to the Association by the medical men of New Jersey. The ladies appeared to great advantage, and the hours took wings. The following evening a vaudeville entertainment, then off to the Marine Ball-Room on the steel pier, to a reception in honor of Dr. Keen, the President of the Association, followed by a dance, and both evenings very dainty refreshments were provided. While the physicians were busy during the day-time, their wives were not forgotten; sailing parties, a roof-garden party, with all that the most thoughtful and gracious of hostesses could think of, was offered for the pleasure and refreshment of the ladies, and as they said adieu, each guest was presented with a bunch of American Beauty roses.

One delegate said to another, "Everything here has the air of money about it—it's overwhelming;" and the other said, "It's perfect hospitality, and yet all one can say is 'thank you,' and never forget it."

The Museum of the Association on Young's Pier was a favorite dropping-in place, where the exhibits were unique and the arrangement artistic in the extreme, and here again so lavishly did those in charge of the exhibits give away souvenirs, that one lazy doctor said he had to take a rolling chair up the board walk to his hotel in order to carry all that was given him. A small boy, a doctor in embryo, no doubt, who was there with "papa," seeing a lady physician whose arms were loaded with various food preparations, pamphlets, *et al.*, and peeping out from this "bric-a-brac" a toy terrier, exclaimed, "Oh, ma'am, where are they giving away the puppies?"

Every large hotel had its quota of delegates; the Hotel Dennis had been appointed "Headquarters"—home-like, tasteful, bright, filled with laughter and friendly greetings; the foyer and long palm-lined corridors presented a charming picture after dinner, as the guests met and mingled, and here and there a face familiar, and lit up by a holiday smile, was seen.

Time and space would fail to even mention the names of the many widely-known physicians who might be seen flitting about the halls of wisdom, or enjoying an hour of fun and fancy:—Dr. J. B. Murphy, of Chicago, always the centre of a little group; Dr. Roswell Park, of Buffalo; our own Dr. William Osler, whom we loaned to Baltimore; Dr. Nicholas Senn, Dr. Shoemaker, and Dr. Rodman, of Philadelphia; Dr. Manley, of New York, and two thousand one hundred other members who enrolled their name and paid their fees. The only fault that the hypercritical could find with the meeting was the multiplicity of papers and the shortness of the time.

Over the hookah often the pleasant days will be re-lived, but, alas! the day-dream will be but a reflection of the brightness of the sun that shone so gloriously on the meeting of the American Medical Association in the year of our Lord nineteen hundred, at gay Atlantic City.

W. A. Y.

A VISIT TO AN UP-TO-DATE LABORATORY.

A COURTESY which was extended to the members of the American Medical Association on their way home from Atlantic City was an invitation to visit the Bacteriological Laboratory of Messrs. Reed & Carnrick, at Jersey City, N.J. The physicians who availed themselves of the invitation were received by Dr. Warner, and he and his assistants took the keen delight of laborious scientists in showing and explaining the many actualities and possibilities of their constant work and research. The several rooms comprising the laboratory are tiled in white, and resemble nothing so much as an aseptic operating room. Instantly the cost and perfection of all the paraphernalia and furnishings used appeal to the eye of the visitor: the rows of microscopes, under which were seen slide after slide, showing bacilli enough to account for even the sufferings of Job himself; then a sterilizer, where diphtheria germs encased in tubes were enjoying a prevailing hot wave. A unique exhibit was a public school book, a geography, which had played hookey, and had been punished by having its cover scraped, and some good, healthy-looking Klebs-Loeffler bacilli found upon it.

The most modern microtomes were shown, so delicately adjusted that infinitesimally small sections could be immediately re-

moved from a specimen, which, when stained and mounted under the cover-glass, were so thin that they resembled but a wash of water-color.

Then came a look at the animals, kept for experimental purposes, in their comfortable miniature apartment houses. Poor Bre'r Rabbit had tuberculosis, and refused to get better; his neighbor in the fourth-floor flat was bravely fighting the ravages of diphtheria, and away out in the suburbs a colony of exclusive guinea-pigs ever debated the vexed question of which little pig should go to market. Piggie's answer was awaiting him in the form of a huge Jersey mosquito, safely housed in a tube, and very hungry; and so, after the attentions of his barber in giving him a good, close shave, the guinea-pig would, through the bites of the mosquito, soon be, it was hoped, the victim of malaria.

A visit to the well-equipped dark-room, and a view of some fine results in micro-photography, and in a small studio were some of the most effective sketches in water-color executed with the greatest skill by Dr. Warner, and replete with most minute detail, a privilege, indeed, to see these sketches.

On arriving at Jersey City, should any of our Canadian physicians have the spare time, a few minutes' ride on the Turnpike Trolley will afford an opportunity of spending a delightful hour at the laboratories.

W. A. Y.

MEDICAL WOMEN IN CANADA.

WE acknowledge with pleasure the courteous and instructive letter of the Dean of the Ontario Medical College for Women, which appears at page 64 of this issue. The information contained therein is sufficient to enable one to form a fair estimate of the actual state of the medical education of women in Canada.

In reference to one of the wants alluded to, viz., the lack of laboratory instruction for women in physiology and pathology, the easiest way out of the difficulty would be to send the lady pupils to the laboratories of Toronto University for instruction in these subjects.

There does not seem to be any good reason why graduates of the Ontario College for Women should be excluded from appointments to the hospitals, especially appointments to the Burnside

Lying-In Hospital and the Sick Children's Hospital. It may be that in these institutions antagonism does not exist between the nurses and physicians, because they are of opposite sexes, the women doing the servile work, while the mental work falls to the men. In domestic work, however, some women are mistresses, and some are maids. Some are well-endowed mentally, and others not so fortunate. Besides, in many and varied business employments, viz., as accountants, lawyers, painters, musicians, etc., women show good capacity, and are trustworthy. As far as the public interest is concerned, a well-educated lady graduate of the Ontario Medical College for Women ought to be as competent to carry out in a hospital, under the direction of the visiting physician, the details of the treatment of a case of tubercular meningitis, as a trained nurse is able to keep the patient's bed in order, or to administer medicines at stated intervals. If the lady graduates wish to secure hospital appointments, they should continue to urge their claims, and success will ultimately crown their efforts. J. J. C.

ARE THE CHARGES AGAINST THE HON. DR. BORDEN TRUE?

DURING the past month serious charges have been laid at the door of the Hon. Dr. Borden, regarding the shipping of, it is said, some trashy food for the use of the military in South Africa, food which, through deficient care in canning, became worse than stale long before it reached Cape Town. It is claimed that some political jobbery was at the bottom of the matter, but whether or not, the whole thing is nothing short of disgraceful.

The manufacturers of Protose (Hatch) some time ago sent a large quantity of their product for experimentation purposes to Kingston Military Barracks, and made the request of the Government that their food be put to the severest tests. This was done, and everything claimed for the article by the manufacturers was thoroughly established, viz., that it contained 85 per cent. of proteid matter, and was capable of sustaining human life without the use of any other food, being, therefore, particularly valuable for field purposes. Naturally, after such a test, the Company submitted a tender to the Government for a certain quantity of their

food for use in South Africa. In spite of that, the department, ignored the tender and purchased another so-called food, with the result as stated above.

All we can say is that we trust the charges made are entirely unfounded, as it is nothing short of criminal for any one, for any reason whatsoever, to, if not endanger the lives, at least materially increase the sufferings of our brave boys who are defending our flag on the veldt of South Africa, and who most assuredly deserve greater consideration than to be dished upon stuff which we would not dare feed to even our beasts of burden.

W. A. Y.

EDITORIAL NOTES.

The Medical Council Proceedings.—Owing to our being so crowded this issue, we thought it wise not to publish the Proceedings of the Ontario College of Physicians and Surgeons till our August issue.

The late Dr. Gibier.—The extremely sad and sudden end to the useful life of one of the most widely known American physicians, Dr. Paul Gibier, was a shock to the whole profession. The value of his work in connection with the Pasteur Institute in New York was priceless.

Military Banquet.—Through the courtesy of one of our subscribers, Dr. Harry Morell, we received a copy of the *Manila Times*, giving an interesting account of the first annual meeting and banquet of the Philippine Association of Acting Assistant Surgeons, U.S.A. The Association was formed on board the *Grant*, on which seventeen members of the society went to the Philippines to administer relief to the sick and wounded soldiers. The annual banquet in future will take place on "Dewey Day," May 1st.*

Hospital Garden Party.—On Saturday, June 23rd, the Ladies' Board of the Toronto Western Hospital held a garden party on the Hospital grounds, on Bathurst Street. An excellent band was secured, and anyone with any time to spare between three and ten p.m., was able to spend a most enjoyable hour, wandering through the beautiful grounds, listening to the music and partaking of the

dainty refreshments. One of our prominent caterers had the refreshments in hand, and they were served by well-known ladies, who gave their services in this worthy cause. The proceeds were for the laudable object of aiding the hospital funds.

Congress of the International Medical Press at the Paris Exhibition.—We notice in *Le Progres Medical* that a congress of the Medical Press will open on July 26th, at the press pavilion in the Exhibition Buildings, Paris. The subsequent meetings of the Congress, which is to last for three days, will take place at the School of Medicine. The following questions will be discussed: (1) Establishment of an International Medical Press Association. (2) Protection of literary property in medical publications. Prof. Virchow, of Berlin, as representing the German Committee, and Prof. Bacelli, the Italian Committee, have accepted the positions of honorary presidents of this Congress.

PERSONALS.

DR. GOLDIE has removed to 8½ College Street, the house until recently occupied by Dr. Alex. McPhedran.

DRS. J. J. MCKENZIE and J. Amyot are candidates for the chair of Pathology in Toronto University Medical Faculty.

MISS SNIVELEY, of Toronto General Hospital, has been appointed Honorary Treasurer of the International Association of Nurses, with headquarters in London, Eng.

DR. ALEXANDER MCPHEDRAN has removed from College Street into his new residence on Bloor Street West. The Doctor will, from this date, devote his time to consultation work.

DR. SAMUEL G. GANT, recently elected Professor of Rectal and Anal Surgery in the Post-Graduate Medical School and Hospital, has removed from Kansas City, Mo., to No. 58 West 56th Street, New York City.

THE members of the Provincial Board of Health of Ontario for 1900 are: Drs. H. E. Vaux (Chairman), P. H. Bryce (Secretary), J. J. Cassidy, W. Oldright, Toronto; E. E. Kitchen, St. George; J. H. McCullough, Owen Sound; W. J. Douglas, Cobourg.

Correspondence.

The Editor cannot hold himself responsible for any views expressed in this Department.

ONTARIO MEDICAL COLLEGE FOR WOMEN.

Editor CANADIAN JOURNAL OF MEDICINE AND SURGERY.

DEAR DR.,—In answer to your letter of the 30th ult., I may say that the Ontario Medical College for Women is the only school in Canada for that purpose. In 1883 there was established a Woman's Medical College in Kingston, which lived for some years and died when the funds supplied by a lady of Toronto failed. Some of the universities admit women students, and allow them to attend the medical classes, but I believe their numbers are not large. The number of students at our school averages about ten every year—sometimes more, sometimes less. Of these, a proportion fall away before graduation. The pupils have a very fair educational status; some of them are, or have been public school teachers; others are ex-pupils from the High Schools. The mental calibre of the students was formerly, I think, of a slightly higher grade than at present, or perhaps their moral stamina was greater, as the difficulties to be overcome were greater, and required more determination of character to persist and succeed.

The subsequent success in private practice of our graduates is a difficult matter to speak upon authoritatively; many are making a living, but none have obtained a very remarkable pre-eminence financially. Some of the girls hold government positions in the Lunatic Asylums in the U. S.; and have made a success of it; a large proportion have gone out to China and the East as missionaries.

The two things which I believe to be necessary for the proper preparation of the pupils are: Laboratory work, physiological and pathological, and hospital appointments. The hospitals of Toronto are closed to our students as far as appointments go.

I am,

Yours, etc.,

R. B. NEVITT.

Toronto, June 10th, 1900.

The Physician's Library.

BOOK REVIEWS.

A Text-Book of Practical Therapeutics, with especial reference to the application of remedial measures to disease and their employment upon a rational basis. By HOBART AMORY HARE, M.D., B.Sc., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia; Physician to the Jefferson Medical College Hospital; One-time Clinical Professor of Diseases of Children in the University of Pennsylvania; Laureate of the Royal Academy of Medicine in Belgium; of the Medical Society of London; Corresponding Fellow of the Sociedad Espanola de Higiene of Madrid; Author of "A Text-Book of Practical Diagnosis," etc. Fifth edition, enlarged, thoroughly revised, and largely re-written. Illustrated with thirty-seven engravings and three colored plates. Lea Brothers & Co., Philadelphia and New York.

We would call the attention of practitioners and students to this work. The first edition was published just ten years ago, and, wonderful to relate, this is now the eighth edition. The sale has been phenomenal. Each edition has been larger than the preceding one, and now, as this is the closing year of the nineteenth century, the author has given us a revised edition which no student or practitioner should be without. This work has already pleased us as no other work on Therapeutics has done. Its arrangement is so complete that little improvement could be suggested in that line. The author has eliminated all drugs that have a doubtful reputation in the treatment of a given disease, recommending only those where the action has been undoubtedly favorable. He tells you exactly what to use in a disease and how to use it, and in what combinations with other drugs it is most suitable. For instance, in the treatment of pneumonia he says *first and foremost* stands Chloride of Ammonium, and then he gives the exact prescription he would use, viz.:

R.	Ammonii chloridi.....	ʒii
	Extract glycyrrhizæ fl.....	ʒii
	Aquæ dest.....	ʒiii

S. Teaspoonful in water every 4 hours during the day.

Then he says, if the cough be in excess of the expectoration—that is, if the cough often fails to bring up the phlegm and is due to tickling or irritation—it may be relieved by adding a little morphine to this mixture as follows (here he gives the exact prescription he would use). Then he goes on to say that if Chloride of Ammonium fail to act, the Carbonate of Ammonium or the Bromide of Ammonium may be added, and gives the exact prescription. This is an invaluable aid to the physician, and, as we have written often before, too many authors neglect to state exactly the prescription they would use in a given disease. Many of them would write thusly: Ammonium Chloride or Carbonate has been found useful in this disease, or Morphine if the cough is irritative and the expectoration scanty." Another redeeming feature of this work is the arrangement of diseases in alphabetical order with the appropriate treatment for each, so that all the practitioner has to do is to turn directly to the disease he wishes information upon. The work is thoroughly up-to-date,

and contains all the more important new remedies which have stood the test of clinical experience during the past two years. In order that the physiological effects of drugs may be more readily understood, a number of illustrations showing those portions of the body upon which the drugs exercise their dominant influence have been introduced, and this feature will make the book more valuable, especially to students.

We consider Dr. Hare's Practical Therapeutics one of the finest works on Therapeutics that the profession possesses, and the author is deserving of many thanks for the practical suggestions which it contains. No physician's library is complete without it. Lea Brothers & Co., the publishers, have sent out a work which for neatness in appearance and excellence of quality cannot be surpassed.

A. J. H.

The Treatment of Fractures. By CHARLES LOCKE SCUDDER, M.D., Surgeon to the Massachusetts General Hospital, Out-patient Department; Assistant in Clinical and Operative Surgery in the Harvard Medical School; assisted by FREDERICK J. CORTON, M.D. With 585 illustrations. Philadelphia: W. B. Saunders, 925 Walnut Street. 1900. Canadian Agents: J. A. Carveth & Co., Toronto. Price, \$4.50.

The publishers have in this volume more than sustained their good reputation. There are few who will deny that the use of a good heavy paper in a book which, like this one, has to be freely illustrated, adds very materially to its attractive appearance and inherent value. Dr. Scudder's work is, we are glad to notice, freely illustrated with half-tone and other cuts, so that the most important points are impressed upon the reader much more effectually. The author all through his book advises, first, accuracy in diagnosis, employing for that purpose, if necessary, the use of an anesthetic or the application of the X-ray, and then simplicity (from a mechanical standpoint) in treatment. It is a pleasure to read some of the chapters, which deal with the treatment of certain fractures, to notice into what minute details the author goes. There are many writers who take too much for granted, and pass over points which ought to have stress laid upon them, but Dr. Scudder proves himself too thorough to let himself fall into that error. He proves that anyone, to be a successful "bone surgeon," must have an accurate knowledge of human anatomy. This is unquestioned, and we are strongly of the opinion that were surgeons, when called upon to treat fracture cases, to more frequently consult their Gray's or Morris' Anatomy, the result would be more satisfactory to both patient and attendant physician.

The author describes the best kind of dressings for "open" fractures, as he denominates what have been known as "compound" fractures. He pays considerable attention to the Roentgen Ray and its use in fractures, and proves of what inestimable advantage its employment almost always is. The publishers in their preface pages give three half-tone illustrations proving this, which are exceedingly well executed. We have formed a very good opinion of this work and do not hesitate to recommend it.

A Text-Book of the Medical Treatment of Diseases and Symptoms. By NESTOR TRARD, M.D., London, F.R.C.P., Professor of the Principles and Practice of Medicine, King's College, London; Physician to King's College Hospital; Examiner in Materia Medica to the Conjoint Board of England. Adapted to the United States Pharmacopeia by E. QUIN THORNTON, M.D., Demonstrator of Therapeutics, Pharmacy and Materia Medica, Jefferson Medical College, Philadelphia. Lea Bros. & Co., Philadelphia and New York. 1900.

After perusing this work one is safe in concluding that in many points it will out-distance any (seemingly) similar contribution to medical knowledge. It is one thing for a student in his final year to secure a theoretical knowledge of the different branches of Pharmacology, but it is an entirely different matter for him in his first and subsequent years of practice to apply that knowledge in the actual treatment of cases under his care. The way in which this book has

been written, and the manner in which the subject in its several branches has been presented, is such as to be of very material assistance not only to the student but even to the practitioner of many years' standing. We find in the different chapters that those symptoms which afford indications for treatment are laid most stress upon. In discussing treatment, many of the newer remedies have been referred to, though the author has been conservative enough to emphasize those methods of treatment which have in the past been tested and yet have not been "found wanting." The book we can recommend as being worthy of confidence and worth a great many times more than the price charged for it by the publishers.

Saunders' Question Compend, No. 17. Essentials of diagnosis arranged in the form of questions and answers prepared especially for students of medicine. By SOLOMON SOLIS-COHEN, M.D., Professor of Clinical Medicine and Therapeutics in the Philadelphia Polyclinic; Lecturer on Clinical Medicine in Jefferson Medical College; Physician to the Philadelphia Hospital and to the Rush Hospital for Consumptives, etc., and AUGUSTUS A. ESINER, M.D., Professor of Clinical Medicine in the Philadelphia Polyclinic; Physician to the Philadelphia Hospital, etc. Illustrated. Second edition, revised and enlarged. Philadelphia: W. B. Saunders, 925 Walnut Street. 1900. Canadian Agents: J. A. Carveth & Co., Toronto. Price, \$1.00.

There is little doubt about it that a large number of practitioners of to-day owe their success at their final examinations to just such a quiz compend as this one is. A book such as that by Dr. Solis-Cohen is very frequently found valuable by not only the student but the physician as well, the points being impressed upon the reader's memory in a manner not easily forgotten. Though we could not recommend any student desiring to be thorough to depend for his knowledge of differential diagnosis upon a work of this kind, yet we say unhesitatingly that he will be considerably assisted and materially aided by its use both before as well as after examination.

A Hand-Book for Nurses. By I. K. WATSON, M.D. (Edin.), late House Surgeon Essex and Colchester Hospital; Assistant House Surgeon Sheffield Royal Infirmary and Sheffield Royal Hospital. American edition under the supervision of A. A. STEVENS, A.M., M.D., Professor of Pathology in the Woman's Medical College of Pennsylvania; Lecturer on Physical Diagnosis in the University of Pennsylvania; Physician to St. Agnes Hospital, Philadelphia. Philadelphia: W. B. Saunders, 925 Walnut Street. 1900. Canadian Agents: J. A. Carveth & Co., Toronto. Price, \$1.50.

There are at present for sale an exceedingly limited number of books suitable for the use of nurses. We do not refer to encyclopedias, nor yet systems (so called), as nurses are like physicians in so far that they have not, as a rule, the time to devote to the reading of large works. A book such as that of Dr. Watson's will now furnish those identified with the nursing profession with much of the necessary information for the successful carrying out of the daily routine of work without their having recourse to the difficult task of culling what they may wish from a large and bulky system (often a decade old) placed at their disposal.

The Essentials of Hematology. A Practical Guide to the Clinical Examination of the Blood for Diagnostic Purposes. Illustrated. Published by The Palisade Manufacturing Co. of Yonkers, N.Y.

This ever live and thoroughly up-to-date firm (indeed too much up-to-date to suit some of its competitors) has sent us an advance copy of a small, but beautifully executed, pamphlet, entitled "The Essentials of Hematology," describing *in minutia* the blood as it presents itself to the eye under the microscope, both when normal and also in the different diseases, *c.g.*, mild and severe types of chlorosis, secondary chlorotic anemia, pernicious anemia, Von

Jaksch's anemia; leucocytosis, etc. The text is illustrated in an exceptionally interesting manner by quite a number of colored micro-photographs, the execution of which are a credit to any house. We are pleased to know that this pamphlet will be followed up by a somewhat similar treatise on Diagnostic Bacteriology, and subsequently by one on the Clinical Examination of the Stomach Contents for Purposes of Diagnosis. The three together will be well worth binding for purposes of preservation.

Golden Rules of Medical Practice. By ARTHUR HENRY EVANS, M.D., B.S. (Lond.), F.R.C.S. England; House Surgeon, late House Physician and Resident Obstetric House Physician, Westminster Hospital, etc., etc. *The Golden Rules of Ophthalmic Practice.* By GUSTAVUS HARTTRIDGE, F.R.C.S. "Golden Rule" series, Nos. IV. and VII. Bristol: John Wright & Co. London: Simpkin, Marshall, Hamilton, Kent & Co., Ltd. Price, one shilling.

These are another two of the "Golden Rule" series, several of which we have had occasion to refer to in past issues of the JOURNAL. "The Golden Rules of Medical Practice" is no exception to the rule, and contains many points, serving as a vest pocket reminder to the busy practitioner. The same applies to "The Golden Rules of Ophthalmic Practice," by Gustavus Harttridge, F.R.C.S.

Practical Gynecology: A Hand-Book of the Diseases of Women and Children. By HEYWOOD SMITH, M.A., M.D. (Oxon.). Second edition, revised and enlarged. London: Henry J. Glaiser, 57 Wigmore Street, Cavendish Square W. 1900.

In Dr. Smith's second edition he has presented to the profession the most salient points of both the treatment and the diagnosis of gynecological cases. He has not gone into unnecessary details, thus burdening the reader with facts which can be found in full in larger volumes. The system of arrangement in this book is such that one can refer to any disease without the loss of time or unnecessary trouble, and the author has appended a list of remedies and a very complete index, which adds quite materially to the value of the book.

REPORTS RECEIVED.

Eighteenth Annual Report of the Provincial Board of Health of Ontario, being for the year 1899. Printed by order of the Legislative Assembly of Ontario. Toronto: Warwick Bros. & Rutter, Printers. 1900.

The Twenty-second Annual Report of the State Board of Health of the State of Connecticut, with the Registration Report for 1898, relating to Births, Marriages, Deaths and Divorces. Printed by order of the Legislature. New Haven: The Tuttle, Moorehouse, Taylor Co. 1900.

"Merck's Annual Report for 1899." We have just received and perused with considerable pleasure Merck's Annual Report for 1899. This is one of the most readable pamphlets we have run across for some time. It is wonderful to notice with what strides Merck's Report has increased in size from year to year, till now it has reached one of which Herr Merck may well be proud. In circulation, from a very modest beginning, the report has now reached the wonderful number of thirty thousand copies. The profession always welcome Merck's Report, in fact any literature issued from this house in Darmstadt, as the firm are known to be of too high a standing to publish anything off color.