

Technical and Bibliographic Notes / Notes techniques et bibliographiques

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

L'Institut a essayé d'obtenir la meilleure copie. 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.

- | | | | |
|-------------------------------------|---|-------------------------------------|---|
| <input type="checkbox"/> | Coloured covers /
Couverture de couleur | <input type="checkbox"/> | Coloured pages / Pages de couleur |
| <input type="checkbox"/> | Covers damaged /
Couverture endommagée | <input type="checkbox"/> | Pages damaged / Pages endommagées |
| <input type="checkbox"/> | Covers restored and/or laminated /
Couverture restaurée et/ou pelliculée | <input type="checkbox"/> | Pages restored and/or laminated /
Pages restaurées et/ou pelliculées |
| <input type="checkbox"/> | Cover title missing /
Le titre de couverture manque | <input checked="" type="checkbox"/> | Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées |
| <input type="checkbox"/> | Coloured maps /
Cartes géographiques en couleur | <input type="checkbox"/> | Pages detached / Pages détachées |
| <input type="checkbox"/> | Coloured ink (i.e. other than blue or black) /
Encre de couleur (i.e. autre que bleue ou noire) | <input checked="" type="checkbox"/> | Showthrough / Transparence |
| <input type="checkbox"/> | Coloured plates and/or illustrations /
Planches et/ou illustrations en couleur | <input checked="" type="checkbox"/> | Quality of print varies /
Qualité inégale de l'impression |
| <input checked="" type="checkbox"/> | Bound with other material /
Relié avec d'autres documents | <input type="checkbox"/> | Includes supplementary materials /
Comprend du matériel supplémentaire |
| <input type="checkbox"/> | Only edition available /
Seule édition disponible | <input type="checkbox"/> | 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. |
| <input checked="" type="checkbox"/> | 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. | | |
| <input checked="" type="checkbox"/> | Additional comments /
Commentaires supplémentaires: | | Includes index. |

THE

CANADIAN

JOURNAL OF MEDICAL SCIENCE:

A MONTHLY JOURNAL

OF

British and Foreign Medical Science, Criticism and News.

U. OGDEN, M.D.,

EDITOR.

R. ZIMMERMAN, M.D., L.R.C.P., London.

CORRESPONDING EDITOR.

VOLUME IV.

JANUARY, 1879, TO DECEMBER, 1879.

TORONTO:

GUARDIAN BOOK AND JOB PRINTING OFFICE, 80 KING STREET EAST

1879.

CONTENTS.

A.

Abdominal Tumours, Diagnosis of, 134.
Abortion, Treatment of, 164.
Abscess, Cerebral, Following a Blow on the Head, 224.
Acne, Treatment of, 233, 294—Pathological Anatomy of, 100.
Aconite Poisoning, 366.
Addison's Disease, Pathology of, 288.
Adhesive Plaster—Elastic, 185.
Ague, 216.
Albuminuria, Physiological, 281.
Alcohol, Formula for, 244.
Alexis St. Martin, 270.
Aloin, 366.
Amputation of the Hip-joint by a modified method, 161.
Amyl, Nitrite, in Opium habit, 124—In Chloral Poisoning, 251.
Anasarca, Surgical Treatment of, 194.
Anæmia, A cause of, 184—Pernicious, Changes in the Sympathetic, 191.
Anæsthesia in Children, 48.
Anæsthesia, Mechanism of Accidents, 294.
Aneurism, Aortic—Double Distal Ligature, 197.
Aneurism of Occipital Artery, 140—Of Renal, 184.
Angina Pectoris, Nitro-glycerine in, 124.
Annus Medicus, 1878, 1-33.
Anthelmintic, A New, 366.
Antipyretic Treatment, 245.
Aphasia from Anæmia, 244.
Appointments, 17, 55, 64, 126, 186, 215, 243, 275, 306.
Arsenic, Antidote for, 124.
Asthma, Treatment of, 140.
Auricle, Chondrosis of, 275.

B.

Balano-Posthitis, Treatment of, 294.
Benzoate of Soda in Diphtheria, 313.
Births, Marriages and Deaths, 32, 64, 96, 126, 156, 186, 216, 246, 276, 306, 338, 368
Blood defibrinated for Rectal Alimentation, 192—Third Corpuscular Element in, 292.
Bone, Inflammation, Operative Treatment of, 185.
Book Notices, 29, 63, 91, 123, 143, 176, 207, 237, 271, 299, 333, 364.
Breech Presentations, Management, 82.
Bright's Disease, Chronic, 101, 127, 340.
British Qualifications in Canada, 249.
Bronchial Glands, Diseases of, 65.
Burns, New Method of Treating, 203.

C.

Cæsarian Section, 94.
Calculus—Huge Vesical, 54, 244.
Canada Medical Association, 31, 300.
Canadians in England, 31, 123, 183, 243, 269, 302.
Cantharidal Cystitis, 103.
Cantharidin, 361.
Cardiac Dyspnoea, Treatment of, 347.
Cardiac Hypertrophy and Renal Disease, 346.

Capillary Varicosity, 107.
Carbolic Acid and Vibrios, 126.
Carbonic Acid in the Blood, 141—Oxide, Quantitative Elimination, 294.
Carotid Aneurism, Distal Ligature, 162.
Cerebral Hæmorrhage, Pathogenesis of, 87—Traumatism, Role of Dura-mater and its Nerves, 191.
Chapped Hands, 93.
Chilblains, Liniment for, 93.
Chloral Hydrate, Enemata in Gastric Irritation, 202.
Chloral Poisoning, 243, 254
Chlorate of Potassia, Remedial and Fatal Effects of, 223.
Chrysophanic Acid, 137.
Cinchona and its Alkaloids, 268—Cure for Drunkenness, 338.
Cockroach Poisoning, 243.
Codeia in Cancer of Pylorus, 48.
Coffee and Egg for the Sick, 154.
Colour-blindness, 164.
Coma, Diagnosis from Alcohol, 44.
Conception, Physiology of, 245.
Constipation, Treatment, 107—Influence of, in developing Rectal Diseases, 277.
Contractures in Hemiplegia, 248.
Convulsions in Children, 73.
Corns, 243.
Corpus Striatum, Circulation in, 329.
Coryza, Caseous, 79.
Creasote Poisoning, 244.
Cystitis Chronic—Injections of Linseed Oil, 194.
Cysts of Broad Ligament, 108.

D.

Death, A forerunner of, 184—A sign of, 260.
Delirium Tremens, Cold Bath in, 96—Treatment of, 97.
Dermoid Cyst of Floor of Mouth, 54.
Diabetes, 21—Fat Embolism and Lipœmia in, 282.
Diagnosis, Charity for Errors in, 94.
Diarrhœa in Children, 72, 308.
Diet in Liquor-Drinking, 133—Change of, 302.
Diphtheria, Paralysis following, 74—Treatment of, 132—Chloral locally in, 133, 320.
Disease and its Hæmatic Index, 320.
Dislocation of Fourth Cervical Vertebra, 257.
Dorsal Points, Painful, 294.
Drowning, Signs of Death by, 367.
Ductus Arteriosus, Diagnosis of Persistence of, 94.
Dyspepsia from Impaired Movement, 217—Nervous, 281.

E.

Eczema, Marginatum, 88—Sulphate of Iron in, 176—Galvanism in, 253—Treatment of, 268—Papulorum, 353.
Editorials, 90, 122, 142, 176, 205, 206, 207, 235, 236, 269, 270, 296, 363.
Effervescing Draught, 268.
Elastic Bands on Battleheads, 93.
Epididymitis, Treatment of, 193, 194.
Epileptic Attack, to Arrest, 294.

Ergotine in Oculopalpebral Phlegmasiæ, 176.
 Erysipelas, Beneficial Effects of, 121—Of the Respiratory Organs, 344.
 Eucalyptus in Cold in the Head, 90.
 Examiners of the Medical Council, 216.
 Expectorant Mixture, 90.
 Eye Bandage, 126.
 Eye in Sleep and Disease, 368.

F.

Fat Embolism in Diabetes, 282.
 Favus of Epidermis, 93.
 Feeding Bottles, 191.
 Fees, Students, 254.
 Final Moment, To Postpone the, 319.
 Fingers, Treatment of Swollen, 78.
 Fetus, Length of, 244—Duration of Life after Mother's Death, 146.
 Food, Infant's, Composition of, 291.
 Formularies, 90, 119, 120, 140, 183, 232, 244, 268, 296, 329.
 Fothergill's Dolor, 191.
 Fowne's Chemistry, Error in, 243.
 Fracture of Forearm in Children, 163.

G.

Galvanism in Chronic Ulcers, 253.
 Gargle, How to, 337.
 Glossophytis, 245.
 Goitre, Substernal, 244.
 Gonorrhœa, 93—Treatment of, 258—Micrococcus in, 337.
 Graafian Follicles, Development of, during Pregnancy, 85.
 Grapes, Preserving, 184.
 Guaiacum in Clear Solution, 232.

H.

Hæmatinuria from Quinine, 361.
 Hæmorrhage following Abortion, Treatment of, 56—during Pregnancy and Parturition, 319.
 Hæmorrhagic Diathesis, Chlorate of Potash in, 367.
 Hæmorrhoids, Carbolic Acid Hypodermically, 256.
 Hæmostatic, A New, 347.
 Hæmostasis in Amputation of Thigh, 267.
 Hairs, Removal of Superfluous, 79, 317—Odour of, 125.
 Heart and Brain, 245.
 Heart, Management of Compensatory Affections, 61.
 Hemiplegia, Prophylaxis of, 18.
 Hernia, Strangulated—Reduction by Esmarch's Bandage, 244.
 Hiccough, 48, 75, 313.
 Hip-joint Disease, 80.
 Hæmoptysis, Treatment of, 266.
 Hospitals in St. Petersburg, 140—In Paris, 154—Medical Registration, 252.
 Hurry, Beware of, 32.

I.

Ice Cream and Beef Juice, 268.
 Identification of Prince Imperial, 338.
 Illicit Practice and Unholy Alliances, 237.
 Ingrowing Toe-nail, 276.
 Infant's Food, Composition of, 291.
 Intertrigo, Treatment of, 292.
 Iodide of Iron Syrup, To Restore, 93.
 Iodoform, Perfumed, 93, 124—Tincture of, 232—Poisoning by, 234.
 Iron and Chloride of Ammonium in Cardiac Disease, 288.
 Ivy Poisoning, 90.

J.

Jaborandi in Puerperal Convulsions, 159.
 Journalistic, 64, 92, 123, 243, 269, 298.

K.

Kidney, Aching, 73—Cirrhotic, 157,
 Knee-joint, Blood Effusions into, 266.
 Koumyss for Children, 184—Formula for, 244, 268.

L.

Labia Majora, Hard Œdema of, in Syphilis, 205.
 Lactopeptine, 48, 276.
 Laryngeal Phthisis, 90.
 Leucin, 252.
 Leucoderma of the Insane, 337.
 Lichen Urticatus, 64.
 Ligatures, The Battle of, 31.
 Lipœmia in Diabetes, 282.
 Listerism, 141.
 Lithotomy, Supra-pubic, 317.
 Lumbago, Treatment of, 103.
 Lupus, Treatment of, 93, 354—By Scarification, 257, 329.
 Lymphadenomata, Retrogressive, 285.

M.

Malignancy in Tumours, 289.
 Maltine, 64.
 Mammary Glands, Accessory, 121.
 McGill Medical College, 156, 244.
 Mechanics, Elementary, in the Curriculum, 302.
 Medical Societies, Meetings of, &c., 57, 155, 177, 215, 242, 268, 300, 301, 336.
 Menorrhagia, Ovarian, 258.
 Metallotherapy, 312—In Retention, 176.
 Metritis, Cervical, Treatment of, 81.
 Migraine, Bandaging in, 313.
 Moral Dietetics, 303.
 Morphia, Hypodermic Injection of, 125.
 Muller, Persistence of Canal of, 304.

N.

Nephritis, Uræmic, Bleeding in, 154.
 Nervous System and Intra-ocular Lesions, 120.
 Neurasthenia, Nature and Diagnosis of, 187.
 Night Sweats, 214.
 Nitrate of Silver, Elastic Crayon of, 32—To Remove Stains of, 197.
 Nitre, Sweet Spirits of, Poisoning by, 93.
 Nutmeg, Narcotism, 303.

O.

Obituary—R. A. Lavell, 64—Ciniselli, 64—Dr. Duncan Campbell, 90—Dr. Tardieu, 90—Mr. James Stocker, 91—Dr. John Biddle, 91—Mr. Edward Ledwich, Dr. John Macrolin, Dr. B. F. McDowell, Prof. Chauffard, Dr. Bigelow, 124—Dr. Geo. B. Wood, 137—Dr. Woodworth, 154—Prof. Gormenschein, 154—Dr. Isaac Hays, 173—Gubler, 183—Murchison, 183—Dr. Tilbury Fox, 243—Dr. Luther O. Fox, 243—Mr. Maunder, 275—Chas-saignac, 302—Mr. Callender, Prof. A. H. Garrod, Dr. Leared, 366.
 Obstruction, Intestinal, 137.
 Ontario Medical Council Meeting, 177.
 Opium Poisoning Cured by Atropia Hypodermically, 216—Habit, 243.
 Opium Poisoning, Recovery, 244.
 Original Communications:—Medical Evidence in Courts of Law, 23—Antiseptic Tube in Abdominal Surgery, 28—Tubercular Meningitis, 57—Skin Diseases, Treatment of some, 83, 118—Cardiac Thrombosis, 86, 139—Cheyne-Strokes Respiration, 112—Polypus Uteri, 116—Of the Heart, 139—Pemphigus Foliaceus, 172, 203—Diabetes, 197—Small-pox in Ontario, 228, 260, 353—Cystocele Operation, 263—Antiseptic Surgery, 264—Treatment of Syphilis, 293—Hypertrophy of the Prostate, 322—Purpura Hæmorrhagica, 326

--Wound of Abdominal Parietes and Intestine, 360—Diphtheria, Treatment of, 361.
Œœna, Treatment of, 234.

P.

Pain in the Side, 311.
Paludal Torticollis, 87.
Paralysis, Spastic Spinal, 220—Infantile, Prognosis in, 254.
Pass and Pluck, 313.
Pepper, Wet, Carbonic Acid Gas from, 61.
Pericardium, Diagnosis of Adherent, 190.
Personal, 64, 123, 135, 154.
Pertussis, Oxalate of Cerum in, 275.
Peyer's Patches, Tuberculosis of, 62.
Pharyngitis, Chronic, 197.
Phthiriasis, 105.
Phymosis, 82.
Pleuritic Epilepsy and Hemiplegia, 287.
Pleuritic Adhesions, Thoracic Vibrations, 295.
Pleurisy, Purulent, Autopsy, 330.
Podophyllin, 233.
Poison, Ivy, Remedy for, 64.
Pregnancy, Complicated with Cancer of Genital Canal, Treatment, 56.
Preservation of Specimens, 155.
Prickly Heat, Cause and Cure of, 255.
Prurigo Formicans, 290.
Pruritus Vulvæ, 64—Treatment of, 136.
Psoriasis, Treatment of, 22, 137, 353, 355—Palmaris, 318.
Puerperal Uterus, Danger of Washing out, 110.
Pulse, High Pressure, 101.
Purpura Hæmorrhagica, Transfusion, 45.
Pus in Urine, 247.
Put Money in thy Purse, 305.
Pyæmia, an Operative Method to Combat, 228.

Q.

Queen's University, Kingston, Graduates, 177.

R.

Rectal Alimentation, 192.
Rectum, Extirpation of, 78—Muscular Fibres of, 302.
Remarkable case, 88.
Renal Artery, Aneurism of, 184.
Retention of Urine, Chloral in, 69.
Rheumatism, Chronic, and Rheumatoid Arthritis, 222—Acute, Treatment of, 310.
Rickety Pelvis, 244.
Rosen's Liniment, 232.
Royal College of Physicians and Surgeons, Kingston, 154.

S.

Salicylate of Soda in Tetanus, 233—Physiological Action of, 286.
Salicylic Acid and Alkalis compared, 310.
Salicylic Acid in Tapeworm, 366.
Saturnine Anæmia, with Double Crural Souffle, 89.
Scarlet Fever, Bullous, 71.
Sciatica, Treatment of, 96.
Sclerosis, Multiple Cerebro-spinal and Paralysis Agitans, Diagnosis of, 159.
Septic Organisms, Thermal Death-point of, 17.
Shingles, Carbolic Acid in, 338.
Shock, Treatment of, 243.
Sulphium Cyrenaicum, 125.
Skin Diseases, Clinical Conversation on, 353.
Sleeplessness, 75.
Smoking, Effects on Teeth, 304.
Sodium Ethylate, a Cure for Nævus, 55.
Spine, Treatment of Angular Curvature of, by Plaster-of-Paris Jacket, 159.
Spleen, Absence of, 263.
Sternum, Fracture of, 54.
Stone Wall, Permeability of, 246.
Stricture of the Colon, Malignant, 314, 343.

Stricture, Treatment of, 77.

Styptic Colloid, 296.

Sulphate of Copper, Relief of Pain from Application of, 183.

Surgical Wrinkles, 55.

Suspensory Bandage, 337.

Suture, The Dry, 95, 234.

Synovitis, Fibrinous and its Relation to White Swelling, 267.

Syphilides, 275.

Syphilitic Fever, 89.

Syphilis, Excision of Initial Lesion, 164—Expectant Treatment of, 351.

T.

Tania, 120, 366.

Talmud, Quotations, 298.

Temperature in New Born, 244.

Tendon-Reflex, 76.

Tenting, 195.

Tetanus Cured, 233.

Thermometer in Abdominal Affections, 96.

Thrombosis, 276—Puerperal, 291.

Thumb-sucking and Irregular Teeth, 64.

Tinea, A New, 31.

Tongue, Painless Excision of, 192.

Tonsils, Abscess of, 204—Hypertrophy, Treatment of, 252.

Toronto School of Medicine, Scholarships, 142—Annual Dinner, 362—Toronto Medical Society, 155, 186.

Torticollis, Paludal, 87.

Tracheotomy in Membranous Laryngitis, 70, 133.

Training School for Nurses, 94.

Transfusion, 45.

Trinity Medical School, 155—College Convocation, 216.

Tuberculosis of Peyer's Patches, 62.

Tubercle, Histology of, 245—Genesis and Prevention of, 343.

Tuberculosis, Acute Diagnosis from Parenchymatous Nephritis, 329.

Tympanites, Treatment of, 233.

U.

University of Toronto Examiners, 92—Senate Elections, 183—Examinations, 186.

Urine, Retention and Incontinence of, 125, 256—Thirty-five Punctures of Bladder in, 215.

Urticaria, Treatment of, 219, 234.

Uterine Cancer, Relief of Pain in, 57—Treatment of, 80.

Uterine Hæmorrhage, 111—Arsenic in, 275.

Uterus, Danger of Washing out Puerperal, 110—Dilatation of Cervix, 111—Exulcerative Syphilitic Hypertrophy of Neck, 111—Internal Medication of and Sterility, 138—Mechanical Support of, 169—Prolapse of, Treatment, 204—Ulceration of Neck of, Cured by Grafting, 291.

V.

Varicose Vein, Excision of, 243.

Vesical Atony, Treatment of, 266.

Vomiting in Young Women, Treatment, 130—Iodide of Potassium in, 233—Of Pregnancy, 321.

W.

Water, Test for Organic Matter in, 154.

Westphal's Tendon-Reflex, 76.

Whooping-cough, Turpentine in, 185—Oxalate of Cerum in, 275—Pills for, 368.

Wound Treatment, 106, 234.

Wounds, Absorbing Powers of, 367.

Wrinkles, Surgical, 55.

Z.

Zymate, 124.

CONTRIBUTORS TO VOLUME IV.

DR. DANIEL CLARK, TORONTO.

DR. GROVES, FERGUS.

DR. MILLS, HAMILTON.

DR. GRAHAM, TORONTO.

DR. C. K. CLARKE, TORONTO.

DR. ZIMMERMAN, "

DR. I. H. CAMERON, "

DR. POOLE, LINDSAY.

DR. BURGESS, LONDON.

DR. RIDDEL, TORONTO.

DR. EMERY, MINNEAPOLIS, U.S.

DR. TYRRELL, WESTON.

DR. MULLIN, HAMILTON.

A. H. WRIGHT, TORONTO.

Canadian Journal of Medical Science.

A MONTHLY JOURNAL OF BRITISH AND FOREIGN MEDICAL SCIENCE, CRITICISM, AND NEWS.

U. OGDEN, M.D.,
EDITOR.

R. ZIMMERMAN, M.D., L.R.C.P., London,
171 Church Street Toronto, Corresponding Editor.

SUBSCRIPTION, \$3 PER ANNUM.

All Communications, Letters and Exchanges must be addressed to the Corresponding Editor.

TORONTO, JANUARY, 1879.

ANNUS MEDICUS, 1878.

In the last half-century of the years we number backwards from that one of grace whose remote descendant, 1878, has just been gathered to his fathers, the immortal Virgil wrote:—

“Redit labor actus in orbem,

Atque in se sua per vestigia volvitur annus.”

But, the gods be praised, this is not true of the history of science in this nineteenth century, and each *annus medicus* has features and accomplishments all its own, which stamp its individuality, while the sole family likeness and evidence of germanity amongst them all is the bright star of progress which glitters on the brow of each. “*Truditur dies die, novaque pergunt interire lunæ,*” said Virgil’s fellow-countryman and coeval bard, the quick-witted Horace, and this remark is even truer of our day than his, for now so many things demand accomplishment in the short space of a diurnal revolution, and it is expected of each day to bring forth so much, that time can scarcely be afforded for the registration of what is past. In accordance with our usual custom, we purpose here, upon the threshold of the in-coming year, to review, as summarily and rapidly as possible, the items of our indebtedness to the year that is dead. We shall “a round, unvarnished tale deliver,” premising that the exigencies of space compel us to confine ourselves to a bare record of the facts, dispensing with all ornate embellishment and any effort at presenting them in a pleasing or attractive form, thus seeking, as is the object of this journal, “rather use than fame.” A convenient starting-point we shall, no doubt, find in the tripod basis of the science—

ANATOMY, PHYSIOLOGY, AND CHEMISTRY.

The grey nucleus in the floor of the fourth ventricle, underneath the eminentia teres, has heretofore been considered the common nucleus of the facial and abducens nerves. Dr. W. R. Gowers, as the result of a pathological experiment recently observed, believes that it is certain that the grey substance of the nucleus belongs to the abducens nerve, and that the facialis fibres pass through it simply, but originate probably at the same place as the other fibres passing along the genu facialis. Stilling states that the opinion hitherto held, that the fibres of the optic tract have no connection with the crus cerebri, is incorrect; on the other hand, he finds that a rather considerable part of these fibres arises from a large nucleus situated in the lower crus, which is laid open only when there is nothing to be seen of the substantia nigra in the section. Nicati details an experiment demonstrating the fact that the optic decussation is incomplete in the cat. In consequence of the analogies existing between the chiasm of the cat and that of man, he believes that this fact holds good in the case of the latter also. M.M. Franck and Pires, as a result of their recent investigations, confirm the conclusion, arrived at from pathological study, that the white fibres which start from the excitable regions of the convolutions and connect them with the central parts of the brain, are grouped in distinct bundles, which preserve their functional independence throughout their course in the white matter. Vulpian’s late researches go to indicate the great probability of the origin of the chorda tympani from the fifth nerve. M. Luys points out that the projection of the paracentral lobule

from the regular curved line of the brain surface enables the brain of man to be distinguished from that of woman, in which it does not do so. Pierret, of Lyons, has demonstrated the constant relations existing between the volume of the motor and sensory cells of the nervous centres and the length of tract over which incitations emanating from, or returning to, them have to traverse. Luchsinger's late experiments satisfactorily prove that there exists not only a general centre for muscular movements, for the vaso-motor and sweat nerves in the medulla oblongata, but that minor centres are also dispersed throughout the entire length of the cord; that these centres can act independently after division of the cord, and that they are excitable by the same agents as the centre in the medulla oblongata. M. Ranvier announces that the nerves terminate in the smooth, as in the striped, muscles in a more or less arborescent expansion of the axis-cylinder. Recent researches of Vulpian appear to authorise the admission that the nerve fibres acting as dilators of the pupil come directly from the brain, mixed probably with fibres from such of the cranial nerves as have connection with the ophthalmic ganglion. Ranvier, Helmholtz, and Stirling have found that muscle will respond to a stimulus of less than 0.00005 second's duration. MM. Livan and Cazeneuve, as a result of some sixty experiments, have determined that the normal epithelium of the bladder absorbs nothing; but when injured, the mucous membrane may become absorbent. Marc Sée has shown by measurement that the united calibres of the bronchi are equal to that of the trachea, and the calibres of the bronchioles equal to that of the bronchi from which they spring. Hence the respiratory tube is a cylinder, and not a cone. Lautenbach, of Philadelphia, as a result of recent experiments, has reached the conclusion that, beside the respiratory centre, or centres, in the medulla oblongata, there exist in the spinal cord nervous mechanisms which may keep up the respiratory movements after destruction of the former. M. Cyon has arrived at the conclusion that the semicircular canals are the peripheral organs of the sense of space. Paul Bert, at the *Académie des Sciences*, announced that the car-

bonic acid in the blood must be in a state of combination; for when the alkalis are saturated, and the gas appears in excess, in simple solution, death rapidly ensues. M. Laborde has determined that the embryonic heart is set in motion, and enters on its functions, when scarcely formed. By the twenty-sixth hour of incubation (and perhaps sooner), the pulsation of the cardiac tube may be recognised. The heart alone, amongst the organs in process of formation, functionates as it is being developed. V. Mering has made a series of experiments, the result of which substantiates neither Pavy's statement, that muscular exertion and dyspœa increase the sugar in the blood, nor that of Bernard, that sugar quickly disappeared from the blood. He establishes that the absorption of sugar is effected by the veins. M. Richet has at length positively determined the nature of the gastric juice to be a chlorhydrate of leucine. Dr. Robert Battey, of Georgia, has shown that the entire alimentary canal is permeable by enemata, and that the ileo-cæcal valve does not prevent the passage of fluid from the colon into the cæcum, if sufficient pressure be employed. Heidenhain has shown, in his recent researches on the salivary secretion, that there is strong reason to believe that the secretion of the watery portion and salts, on the one hand, and of the organic material, on the other, are independent of one another and under the control of two different sets of nerves—the secretory and trophic. J. Bermann, from a series of researches, has determined that the submaxillary gland contains, besides the ordinary acinous glandular tissue, an intercalated tubular gland, the ducts of which are much contorted and intertwined. They have an epithelium peculiar to themselves, and empty into Wharton's duct. MM. Afanassiew and Pawlow have demonstrated that sensory irritation of the skin is capable of inhibiting the secretion of the pancreas. As a contribution to the physiology of sleep, A. Strumpell records (Pflüger's *Archiv*) the case of a patient, aged 16, who was shut off by anæsthesia from all external impressions save through the left eye and the right ear; when these were closed, he at once fell asleep. Dr. Oertel, of Munich, has described a process of

laryngostroboscopy, by means of which the actual vibrations of the vocal cords during the production of sounds, which have hitherto eluded observation, can readily be seen. Raoul Pictet, of Geneva, has succeeded in obtaining the liquefaction of oxygen under a pressure of 320 atmospheres and at a temperature of 140 degrees below zero. He has also obtained the solidification of hydrogen under a pressure of 650 atmospheres and at a temperature of 370 degrees below zero. In this department, book-makers and publishers have not been idle, as the following bibliographical list will show:—Allen's System of Human Anatomy, Bock's Atlas of Human Anatomy, new edition of Ellis' Demonstrations of Anatomy, Ewart's Manual of Practical Anatomy, Part VII. of Rickman Godlee's Atlas of Human Anatomy, fifth edition of Holden's Human Osteology, Chiene's Lectures on Surgical Anatomy, Hensman's Anatomical Outlines, Bell and Lankester's Translation of Gegenbauer's Elements of Comparative Anatomy, second edition of Gamgee's Translation of the sixth edition of Hermann's Elements of Human Physiology, McKendrick's Outlines of Physiology in its Relations to Man, Sylvester Marsh on Section Cutting and Mounting, a new edition of Beale on the Microscope in Medicine, Martin's Manual of Microscopic Mounting, Vol. II. of Roscoe and Schorlemmer's Treatise on Chemistry, Witthaus on the Essentials of Chemistry, Tidy's Handbook of Modern Chemistry, Wheeler's Organic Chemistry, Kingzett on Animal Chemistry, Blyth's Manual of Practical Chemistry, seventh edition of Bowmann's Practical Chemistry, Paul's Industrial Chemistry, based on Payen's work; Semple's Aids to Chemistry, Classen's Quantitative Analysis, and Purvell's Observations on some of the Operations of Chemical Analysis.

MATERIA MEDICA AND THERAPEUTICS.

The progress of this department is steady and encouraging. Although the year is not so remarkable as its predecessors for the introduction of new remedies, yet the proving of the old, and the discovery of new applications for them encourages us to press forward in the field of therapeutics. Salicylic acid and its salts continue

to maintain their reputation pretty fairly as antipyretics and antirheumatics. But "*ubi virtus, ibi virus*," and further experience, admonishes us not to omit our care and watchfulness in their administration. Besides the occasional occurrence of a toxic and irritant effect, Buch has found salicylic acid to be locally injurious to the teeth. Köppler has found that taken internally it loses its antiseptic properties by combination with an alkali. Bunz reports its beneficial employment in the intermitten and remittent forms of yellow fever. Laburthe reports good effects from silphium (6 to 20 drops 3 times a-day) in phthisis. Prof. Baelz, of Tokio, Japan, has had remarkable success in the recent epidemic of cholera from the hypodermic injection of 3 grain doses of paracotoin. Cloëtta and Fronmüller have found the coto bark and its alkaloids—cotoin and paracotoin—specially valuable in immoderate diarrhoea and sweating. Dr. Franz Mossman regards the chloride of pilocarpine (*jaborandi*) as an oxytocic, and reports two cases of its employment in this way. Fehling advocates it as a successful remedy in puerperal eclampsia. Its sialogogue and diaphoretic effects have been well established, and a good many cases of its successful employment for the removal of chronic pleuritic and ascitic effusions have been recorded. Dr. Ortille, of Lille, reports two cases of obstinate hiccough cured by its administration; but its chief use will probably be found in kidney affections with suppression of urine. Dr. Henry, of Manchester, recommends the hypodermic use of pilocarpine (gr. $\frac{1}{3}$ — $\frac{1}{2}$) wherever *jaborandi* is indicated, as being less apt to disagree and being easily controlled by nitrite of amyl inhalations. Dr. Ralfe, of the Seamen's Hospital, Dr. Saunders, and several other writers, during the year, have recommended nitrite of amyl for cutting short the cold stage of ague; its great utility in epilepsy and hysteria; in asthma, both spasmodic and renal, in angio-tetanic megrim, in chloroform and ether narcosis, and its antidotal effects upon the unpleasant symptoms produced by *jaborandi*, combine to render it one of the most valuable medicinal agents we possess. Dr. W. S. Forbes, of Philadelphia, records two cases of hydrophobia in which it afforded marked relief.

Iodoform has come into general use, and admirably serves a variety of purposes. Its pungent odour is the great drawback to its use, but this can be mitigated in various ways, and a combination with tannic acid almost entirely removes it. Its great solubility in ether renders its application in the form of spray both easy and convenient. Dr. Moleschott recommends iodoform in glandular swellings, cold abscesses, serous effusions, orchitis, and epididymitis. He paints iodoformed collodion over the parts. Mr. Berkeley Hill speaks most highly of its utility in syphilitic ulceration, and specially of the tongue. He uses it, both externally and internally, in the form of a pill ($\frac{1}{2}$ grain, with extract of gentian, 3 times a day). Wyndham Cottle, of the Blackfriars Skin Hospital, recommends it in venereal sores, buboes, chronic ulcers and as a parasiticide in chloasma and tinea. Amongst specialists, Prosser James recommends it in ulcerations of the throat; Dr. Edward Woakes and Lennox Browne highly laud it in nasal, post-nasal, and aural catarrhs, and Patterson Cassells regards it of use in diseases of the ear wherever there is ulceration. Dr. Fordyce Grinnell, of the Wichita Agency, has found tincture of iodine in 10 drop doses, in sweetened water, as efficacious as quinine in malarial diseases; and several contributors to the American journals have fully confirmed its value. M. Germain Sée, who created such a stir in the therapeutic world by his early advocacy of salicylic acid, again startled the conservative portion of the profession by the announcement that asthma was no longer to trouble humanity, as he had found an infallible remedy in the iodide of potash and the iodide of ethyl. The latter merely relieves the paroxysm, but the former, sufficiently long continued, cures the disease. This is, of course, but the revival of an old remedy, but under the advocacy of so eminent an authority, it demands the careful and serious attention of the profession. Winternitz and Byrom Bramwell also lend it the support of their great authority. Delboeuf found that persons affected with colour blindness (Daltonism) were relieved of their infirmity on looking through a solution of fuchsine. Javal has turned this to account by interposing a thin layer of gelatine, coloured with fuchsine,

between two glasses, which are to be worn as spectacles by Daltonians. Feltz and Bouchut have successfully treated albuminuria by fuchsine and rosaniline, in pill form, in doses of three grains *per diem*. Alexis Horvath, of Kieff, has shown that alcohol is a local anæsthetic, and that it is a useful application in severe burns. Guttman and Fraenkel, in their experiments with peroxide of hydrogen, have found that it is capable of entirely preventing the decomposition of urine. The fermentation of grape sugar may also be prevented by it. Stöhr found that unhealthy sores were greatly benefitted by its application, and that soft chancres healed in half the time and were rendered incapable of inoculation. The diphtheritic secretion was similarly affected. Its internal administration, however, is lethal. Mr. Benj. Bell, of Edinburgh, speaks highly of the tincture of eucalyptus in bronchitis and in various stomach affections. One drop of oil of eucalyptus on cotton-wool has proved an excellent anæsthetic to sensitive dentine, and it is also one of the most satisfactory agents for disguising the unpleasant flavour of cod-liver oil. Several contributors to the *Lancet* and *British Medical Journal* have recorded cases of the successful employment of subcutaneous injections of curara in chorea. Four-tenths of a grain appears to have been an effective dose. No further reports of its happy use in hydrophobia have been recorded. Wharton Sinkler reports favourably on the use of cannabis indica in epilepsy. Mr. Thos. Clark speaks highly of the oxalate of cerium in chronic cough. A. R. Finck, of Philadelphia, recommends oil of amber in arginose affections. Köhler and Schreiber, of Halle, point out that large doses of oil of rosemary (administered to animals) antagonise the pathological irritability induced by strychnia. Its powers of reducing temperature are also remarkable: given by the stomach, it produces a temporary reduction of about 2°, but administered by inhalation, it will effect a reduction of as much as 8°. Sidney Ringer records the beneficial employment of physostigma (one-tenth grain at frequent intervals) in three cases of paraplegia, two of ataxy, and one of writer's cramp. Gubler testifies to the immediate diuretic effect of the citrate and bromhydrate of caffeine administered hypoder-

mically in $7\frac{1}{2}$ grain doses. Grützner has been investigating the action of diuretics, and finds that the renal secretion may be increased in two ways, medicinally:—1st, by raising the pressure in the arterial system generally, as by strychnia or digitalis, and secondly, by directly influencing the secreting tissues of the organ, as by urea or the nitrate of soda. The diuretic effects of the resin of copaiiba in cases of ascites, &c., has called for remarks by several writers during the year. Jagielski, Lowther, and many others testify to the efficacy of koumiss in the treatment of obstinate sickness and irritability of the stomach; and its great utility as a combined stimulant and food in cases of phthisis and other forms of inanition attended with gastric hypersensibility, has been on all sides attested. The various forms of soured milk, either in the solid or fluid form, promise to prove a valuable addition to our armamentarium in the conflict with disease. Milk itself still holds its place as one of the most, if not the most, valuable of diuretics, and the restriction to a milk diet has time and again throughout the year been found most efficacious in removing serous effusions after other means had failed. The great utility of the wholly milk diet in diabetes and in the various chronic disorders of the bowels is now a matter of everyday experience. Milk has been found to be an excellent solvent, and one of the most agreeable vehicles, for quinine. The researches of Auerbach, of Berlin, demonstrate that the reputed hypnotic properties of lactic acid are absolutely *nil*. Mr. Annandale, of Edinburgh, records a case of writer's palsy cured by hypodermic injection of strychnia on Bianci's plan. Semnola has found electricity the most effective remedy in nervous vomiting, though strychnia has been highly spoken of by a French writer during the year. Huchard highly extols opium as a remedy in cerebral anæmia and diseases of the heart. Mr. Wm. Stewart regards chloral as the remedy *par excellence* in laryngismus stridulus; and Surgeon-major Hall and others bear testimony to its value hypodermically in malignant cholera. Cases of tetanus, too, are this year again recorded in which its use seems to have been of benefit. Atropia has now fully established its power of controlling morbid diaphoresis, and Mr. J. Stuart

Nairne, of Glasgow, points out that the external use of tincture of belladonna is equally effective. He employs ʒij of the tincture with an equal quantity of whiskey, and this suffices for the whole body. Dr. Vinkhuysen, after ample experience, reports quinetum to be superior to quinine for the majority of purposes. Guyot records the successful employment of the sulphate of quinine in chronic diarrhœa. Several writers during the year have recommended hyoscyamine in hydrophobia, and many appear to regard it as the most potent and beneficial remedy we possess in mania. Gelsemium maintains its reputation as an antineuralgic for the trigeminal nerve, and Prof. Massini, of Basle, reports favourably upon it. Its ophthalmic effects are well established, but as to its reputed power of promoting dilatation of the cervix uteri, we have this year seen no testimony. Apart from its ecbolic and hæmostatic properties, ergot has lately proved of service in cerebral, spinal, and many other affections. Schumacher lauds it in the treatment of angioparalytic megrim, Siredey in typhoid fever, Molfese in diseases of the bladder, Atlee and Satterthwaite in enlargement of the prostate, and Rendu, of Paris, and DaCosta in polyuria. Digitalis maintains its reputation as a diuretic and as a tonic to the heart, and, at a late meeting of one of the Paris societies, the opinion was expressed, and pretty generally entertained, that cases of cardiac affection in which it would not prove of service are few and far between. It appears to act, as occasion may require, either as a tonic or a sedative to the heart. Desnos advocates its use in congestive dysmenorrhœa when ergot has failed to afford relief. Dr. Martelli reports the favourable treatment of asthma by subcutaneous injections of arsenic (Fowler's solution, 1 part to 2 of water) Whittaker, of Cincinnati, has found 5 drops of Fowler's solution three times a day efficacious in four cases of obesity. Jacquier has found the oxide of zinc of service in diarrhœa. Radcliffe Crocker recommends the oleate of zinc in eczema, especially in the discharging stage. Duhring and Van Harlingen have found Balmanno Squires glycerole of the subacetate of lead beneficial in eczema rubrum of the legs, but it

possesses no antipruritic properties. Féréol and Bourdon have found the ammoniacal sulphate of copper of striking benefit in facial neuralgia; and Levi and Barduzzi have insisted upon the tonic properties of the sulphate of copper given in pill form in the dose of half a grain to one grain per diem. Dr. Howard Cane highly extols the use of sulphide of calcium in acne as suggested by Ringer. Dr. John Brunton records two cases of nævus successfully removed by the application of sodium ethylate as suggested by B. W. Richardson. Testimony on all sides has not been wanting as to the beneficial effects of the application of soda to burns. Chrysophanic acid has been generally pretty favourably reported on by dermatologists as a remedy in psoriasis and the tinea. Its irritant properties, and the almost indelible stain it produces, are objections to its use. Mr. Squire has found, however, that ordinary bleaching powder, properly used, will remove the stain, and a Scotch observer has found benzole on blotting paper useful in this respect. Most English and American dermatologists have found it useful, and Besnier, of the St. Louis Skin Hospital in Paris, reports favourably upon it. Neumann, Hebra, and Zamisch also regard it favourably; and Hebra points out that its proper name is Bioxymethylantracanon. It is identical with the colouring matter of the madder root, alizarin, and this latter has already been used successfully, in psoriasis, by Dr. James Adams, of Glasgow. Radcliffe Crocker, of the skin department of University College, speaks highly of the use of thymol and thymic acid in the form of ointment in cases of chronic eczema and psoriasis, and especially as a parasiticide. The value of glycerine in internal hæmorrhoids has been repeatedly alluded to throughout the year, and its use as a succedaneum for cod-liver oil, where the latter can not be tolerated, is becoming pretty generally recognised. Dr. B. W. Richardson, in his lectures this year before the Faculty of Glasgow, showed that the therapeutic application of oxygen must be as an eliminant and relaxant: these properties it possesses in an eminent degree, but the difficulties of its proper administration are insuperable in private practice. Planat of Nice, testifies that the local applica-

tion of arnica rapidly arrests furuncular inflammations. Stern reports favourably of carbolic acid in intermittent fever. Mr. Henry Kennedy reports in the *Practitioner* five cases of diabetes insipidus cured by dilute nitric acid, and Dr. Balfour, of Edinburgh, records a case of saccharine diabetes astonishingly controlled by its administration. Dr. Long, of the U. S. marine, employs the mistletoe (*viscum album*) as an oxytocic, and to arrest uterine hæmorrhage. The viburnum prunifolium, as a uterine tonic and antiabortive, appears likely to verify the expectations formed of it. Sherwell, of New York, recommends linseed and linseed oil as a substitute for cod-liver oil in marasmus, &c., and as a local application of great utility in pemphigus foliaceus, eczema, &c. Louvet Lamare and Constantin Paul report favourably of *drosera rotundifolia* in whooping-cough, as does also Camperdon of tincture of myrrh. Dr. Goldsmith, of Atlanta, recommends the dried pith of the corn stalk for uterine tents. Dr. Ralfe has undertaken a series of observations showing that, as pointed out long ago by Bence Jones, the alkaline bicarbonates administered on an empty stomach increase the acidity of the urine, but that when given on a full stomach they diminish it. The literature of this department is not neglected. We note the appearance of the following works:—Ott on the Action of Medicines, 4th edition Parrish's Pharmacy, 4th edition Stille's Therapeutics and Materia Medica, the National Dispensatory, by Stille and Maisch, 3rd edition Griffith's Formulary, 11th edition Squire's Companion to the B.P., Kidd's Laws of Therapeutics, 6th edition Ringer's Therapeutics, American edition Farquharson's Therapeutics, and a Syllabus of Materia Medica, by Harvey and Davidson.

MEDICINE AND PATHOLOGY.

In the field of medicine the husbandmen have not been idle, nor has their labour been in vain. The harvest of the year is a rich reward, and the heritage transmitted to its successors is one to be cherished as of much value. Cohnheim's views on the pathology of inflammation have been fully corroborated by Senftleben's recent experiments with the cornea of the rabbit. Peter's researches upon the

subject of morbid local temperatures are fraught with most vital consequences, both diagnostic and therapeutic. An increment of from two to three degrees in the local temperature of the affected part has been observed and pointed out by him in pleurisy and in certain malignant affections of the stomach and bowels. Auguste Voisin has also observed and turned to account, in diagnosis of certain mental affections, the local temperature of the head at various points. The subject of metalloscopy and metallotherapy has continued to attract a large share of attention throughout the year. Charcot, Vigouroux, Barq, and many others have further confirmed and extended the observations previously made; and the cases of A. Hughes-Bennett and Horatio Donkin, although good examples of what mental influence can effect, in no wise invalidate the carefully observed and recorded cases of others, especially those of hemiplegia of organic origin, nor do they touch upon the subject of the value of metalloscopy in indicating an internal remedy which will prove of service.

Dr. Brookhouse, of the Nottingham General Hospital, contributes two cases to show the beneficial effect of absolute rest, low diet, and iodide of potassium in aortic aneurism. At the Pathological Society, Drs. Ralfe and Douglas Powell showed specimens of spontaneous cure of aortic aneurisms, and Dr. Lediard exhibited a specimen from a case which had followed the unusual course of bursting externally. Dr. Braidwood reported at the Pathological Society an unprecedented case of unilateral cancer occurring primarily in bone. Prof. Prunniche has directed attention to the great value of the inverse type of temperature as a sign of miliary tuberculosis. Dr. F. Marchand has met with (Virchow's Archiv) one of those rare cases in which tubercular deposits are found in voluntary muscles. The experiments of Tappeiner, of Meran are very conclusive in demonstrating that a small quantity of fine particles of phthisical sputum suspended in the atmosphere gave rise to miliary tuberculosis in the lungs of dogs, although at time of killing—twenty to twenty-five days—no external evidences of ill-health were observed. Feeding the sputum to them was not so successful. Dogs were

selected as not being prone to the development of tubercle. Max Schottelius found that the sputum of bronchitis had an equal effect, and that particles of cheese, of brain and of cinnabar suspended in the air had a similar, but much slighter, effect. Dr. Webb, of Philadelphia, adduces in the April number of the *Amer. Jour. of Med. Science*, irrefragable evidence as to the contagiousness of pulmonary phthisis. Dr. C. T. Williams records a case of pulmonary phthisis with large vomica in which the cavity was tapped with good results. Further testimony in favour of F. T. Roberts's method of strapping the chest in phthisis is adduced by J. K. Spender, of Bath. Mr. Jonathan Hutchinson has suggested as the best means of preventing hydrophobia the systematic extraction of the canine teeth of all dogs. Dr. Nicholls, of the Chelmsford Infirmary, records a case of rabies ending in recovery. The medical treatment consisted in the almost continuous administration of chloroform and the hypodermic injection of morphia and calabar bean. Drs. Schmidt and Lebeden record a case of cure of hydrophobia in a child by oxygen gas. Two cases of hydrophobia in the Manchester Royal Infirmary have enabled Dr. Ross to make important discoveries (not yet made known) in connection with this disease, and to trace the changes which are rather molar than molecular, right up the lateral columns of the cord to the brain. Dionis de Carrieres records a case of tetanus cured by warm baths prolonged for from two to six hours. Blachez reports two similar cases. The researches of Aufrecht, of Magdeburg, published this year, go to support the view that the lesion in tetanus consists in an acute, diffuse, central myelitis. J. Christian's observations go to confirm the view held by Bouillaud, Marcé, and Jaccoud that general paresis of the insane is an ataxia and not a paralysis. Terrillon records two cases of sudden death from embolism of the right side of the heart. Cases of arrest of embola in the heart have not hitherto been recorded as they usually pass on into the pulmonary arteries, but in each of these cases the embolon was found rolled up in the right heart. Dr. Tibbits records a case of embolism of the right middle cerebral artery attended with loquacity.

Grædel reports favourably of warm saline baths in cerebral embolism; but they prove injurious in sanguineous apoplexy. Westphal, Erb, Berger, Buzzard, Althaus, and Grainger Stewart have each again called attention to, and recorded cases of, the phenomenon of tendon reflex as an early sign of tabes dorsalis. Buchwald, of Berlin, records three cases of spiegelchrift (mirror-writing) with the left hand in right hemiplegia. M. Dejerine has called attention to the existence of reflex trembling of the sound side on sharp flexion of the limb in hemiplegia; this has been very commonly observed on the affected, side but has not hitherto been noted on the sound. Mr. J. Stuart Nairn, of Glasgow, records a unique case of left facial paralysis following extraction of a lower molar on the right side. In the *American Journal of Medical Science* for July, Dr. Weir Mitchell describes a new affection of the nervous system somewhat similar to what Gross describes as podynia. He has denominated it erythromelalgia. Vallin records a case of arthritis secondary to acute myelitis. This is, so far as it goes, a confirmation of the old theory promulgated by John K. Mitchell, that acute rheumatism is an affection of the spinal cord. M. Debove points out a new symptom of paralysis agitans which he designates lateropulsion. It consists in an inability to read, owing to the fact that one line being read and another commenced the patient suddenly and unconsciously reverts to the previous line. In the treatment of bedsores in these affections, Dr. Mills adds his testimony to the value of the negative pole of the galvanic battery. Prof. Rose has published a monograph on death from goitre, in which he shows that the pressure of the tumour produces fatty degeneration of the cartilaginous rings of the trachea, thus transforming the usually rigid tube into a membranous and flaccid canal, the lumen of which a sudden twist or slight pressure will suffice to obliterate. Prof. Bitot reports eight successful transfusions of blood in four cases of chronic anæmia by means of a new apparatus. He attaches great importance to the prevention of the usual subsequent chill by the administration of quinine. He regards transfusion as mischievous, rather than otherwise, in cancerous affections, Mr. Patrick

Letters, of Dundee, also records the successful treatment of chronic anæmia from gastric ulcer by transfusion of blood. Poniklo, of Cracow, in the autopsies of five diabetic patients, has found an increased amount of connective tissue in the ganglia of the sympathetic—especially the upper and lower cervical—and a shrunken and granular condition of the nerve elements. Dr. Wiltshire again directs the attention of the profession to pruritus vulvæ as being sometimes the sole outward symptom of saccharine diabetes. In addition to the deceptive substances pointed out by Hay, of Philadelphia, last year, Dr. Pye Smith, of Guy's, has found that the urine of patients taking alicylic acid or its salts will throw down the suboxide of copper with Trommer's test. Dr. Balfour, of Edinburgh, places on record the case of a young man suffering from diabetes mellitus, greatly benefited by 20 minims of dilute nitric acid four times a day after all other remedies had failed. The daily excretion of urine fell from 400 oz. to 50 oz., and that of sugar from 16 oz. to 10 oz. The body weight increased two stones. Judging from the discussions on this subject at the Paris societies this year, French authorities would regard such cases as glycosuria, but not diabetes. Dr. Lewis (*Virginia Medical Monthly*) records a case of unilateral manifestation of the malarial paroxysm. An epidemic of cerebrospinal meningitis occurred this year in Dundee, and the disease was pronounced by Dr. J. T. MacLagan, of the Royal Infirmary, to be contagious. Dr. Goodhart, of Guy's, speaks highly, and records four cases of paracentesis thoracis and abdominis by means of Southey's capillary cannulæ and drainage tubes. Other observers also speak equally favourably of this method in these cases and also in anasarca. Dr. Stephen Mackenzie, of the London Hospital, advocates, and records successful cases of the treatment of ascites by abdominal compression. M. Lepine, in his researches upon the alkalinity of the blood, has found that in chronic articular rheumatism the blood is always less alkaline than in the normal condition. Auguste Ollivier records a case of true spinal gout, in which infiltration of urate of soda was found on the external surface of the spinal dura mater. M. Feltz affirmed at the Académie des Sciences the presence of crypto-

gamic germs in the blood of typhoid patients : they are capable of vegetating in flasks containing pure air alone (aerobic). At the Clinical Society of London, Mr. Legatt read notes of a case of yellow fever in England. It was also seen by Dr. Murchison, and had been contracted in South America. The period of incubation must have been at least twenty-seven days. Dr. Braidwood has this year described some bacterial forms met with in the expired air and in the blood of a couple of cases of measles. Mr. Hiffe, of Kendal, records a case of measles in a young woman in which for a period of ten days remarkable fluctuations of temperature, from 101° to 107° , occurred without apparent or discernible cause. Some remarkable cases of high temperature have this year been placed on record. Dr. Ormerod, of the Metropolitan Free Hospital, reports a case in which the thermometer registered as high as $115^{\circ}\cdot 8$. The woman had a short time previously had an attack of acute rheumatism, but the pathological condition at the time of this registration was not made out. (Pulse 120.) Dr. C. S. Mercier records a case of yellow fever with an axillary temperature of 111° ; five hours after death $105^{\circ}\cdot 5$, and in the hypogastric region after incision 109° . Dr. Donkin, of the Westminster Hospital, records a case of remarkably high temperature during and after convalescence from typhoid fever : all sources of error and deception were carefully eliminated. The highest point reached was $111^{\circ}\cdot 6$; and fluctuations between $98^{\circ}\cdot 6$ and 110 were time after time observed. Sellerbeck records an instructive case of simulation of fever, in which the thermometer was made to register high by almost imperceptible friction between the arm and the night dress in the axilla. A great deal of discussion has taken place during the year in the English and French journals upon the question of the pathognomonic value of ulcer of the frænum lingæ in pertussis. It appears that this ulceration is very commonly present and results from the propulsion of the tongue over and against the incisor teeth in the act of coughing. It would appear that the committee appointed by the Royal Medical and Chirurgical Society to inquire into the question of the identity of croup and diphtheria, have reached the

conclusion that they are one and the same disease ; but the report has not yet been published *in extenso*. A. B. Isham, of Cincinnati, in an excellent paper published in the October number of *American Journal of Medical Science*, suggests a new theory of the etiology of parotitis. He regards it as being due to a plugging and obstruction of the excretory duct of the gland, and he succeeds in making out a good case. Heinlein, of Erlangen, reports urticaria as resulting from the use of salicylate of soda. Dr. Stephen Mackenzie records a fatal case of purpura following the administration of a single dose of iodide of potash in an infant, the subject of congenital syphilis. Dr. Thin has this year shown that the proportion of red blood corpuscles is above the average in psoriasis and about normal in eczema. Dr. Ord exhibited two cases of myxœdema (adult cretinism) at the meeting of the Royal Medical and Chirurgical Society on the 9th of April. Dr. C. H. Bennett, of Dublin, reports a hitherto unobserved case of calcification of the adipose tissue. At the Clinical Society, London, Dr. Felix Semon showed a rare and interesting case of paralysis of the posterior crico-arytenoid muscles. Dr. Sommerbrodt records a case of submucous laryngeal hæmorrhage simulating a foreign body ; on incision of the tumour, the blood escaped and the symptoms were relieved. An unique case of herpes of the larynx is reported by Dr. Charles Fernet, of St. Antoine Hospital, Paris. Peter, in his article on the larynx (*Nouveau Dictionnaire*), admits the possibility of its occurrence, but this is the first time the herpetic vesicle has actually been seen in this situation. Dr. Broadbent records a case of hydatids of the lungs so closely simulating pneumothorax that the diagnosis was only made *post mortem*. Dr. Welch, of New York, under the direction of Cohnheim, has been making a series of experiments to determine the cause of œdema of the lungs. He reaches the conclusion that the immediate cause is predominant weakness of the left ventricle of the heart. Fernet this year announces that he regards pneumonia as a herpes of the lung due to pneumogastric neuritis. This view is also supported by Parrot and Lagout. A case of pneumonia from railway shock is recorded by Mr. Bennett

and Dr. Clifford Allbutt. No abrasion or contusion was anywhere found, and no other lesion than the lung trouble existed. The mandied and the railway company was mulcted in damages. Dr. Rafle reports the occurrence of gangrene of the lung in a case of lead-poisoning, apparently due to embolism. Dr. Bøgehold, of Berlin, reports a case of fatty effusion into the pleura. Mr. Adams (Pathological Society) showed a case of spontaneous rupture of the cesophagus in a man aged 53, who had suffered from dyspepsia. The lower end of the cesophagus was thinned, and so was the cardiac end of the stomach, but no other change was found. Dr. Brabazon, of Bath, records a general atrophy of the stomach with absence of organic disease. Dujardin Beaumetz records a case of sphacelation of the entire mucous membrane of the stomach from the effects of a corrosive. All the appearances of health and active digestion were maintained for a fortnight, and death appeared to be due to separation of the slough. Dr. Macnab, of Bury St. Edmunds, records a case of diaphragmatic hernia of the entire stomach through a hole in the tendinous portion of the diaphragm, the result of an old empyema. Malbranc, of Naples, adds his testimony to the successful treatment of gastralgia by the internal stomach douche, when other means had failed. In stomach affections giving rise to inanition, rectal alimentation by defibrinated blood has been favourably reported on to the N. Y. Therapeutical Society. Brown-Séquard adds his testimony to the utility of Leube's meat and pancreas (freshly removed) clysters in such cases. Dr. Stephen Mackenzie records a rare case of traumatic abscess of the liver treated by puncture and irrigation of the cavity, followed by recovery, in spite of a diaphragmatic pleurisy and slight septicæmia. Dr. Shingleton Smith records a case of acute atrophy of the liver, in which an atrophic condition of the nerve cells of the sympathetic ganglia was found. The occurrence of blue bile in the vomit of a woman is recorded by Prof. Andouard. Dr. McConnell, of Calcutta, has again met with the distoma sinense in the human liver—the second case on record. Mr. Bryant records a case of sudden death after tapping a

hydatid cyst of the liver. The trocar and cannula were not larger than a silver probe, and nine ounces of clear fluid were withdrawn. Death in five minutes; cause not discovered. Dr. Katz, of Berlin, records a case of hydatids of liver bursting into the air passages, followed by recovery. Mr. W. E. Green records a rare case of hepatico-bronchial fistula. Dr. Krull advocates large enemata (three to four pints) of cold water (about 60°) in jaundice. Bucquoy, of the Hôpital Cochin, records a case of hydatids of the spleen cured by two aspirations. Dr. Markham Skerritt reports a case of spontaneous rupture of the spleen. Lorentzer records a case of abdominal abscess discharging worms. Bucquoy records three cases of cure of intestinal invagination by electricity. Dr. Powers, of Michigan, records a case of invagination in a child, with discharge of thirteen inches of small intestine *per anum*, followed by recovery. Debrou (d'Orleans) records a case in a child eight years old, with discharge of a metre (39.37 inches) of small intestine, with recovery. Dr. Tuckwell, of Oxford, reports a case of intestinal obstruction, with faecal vomiting, treated successfully by belladonna. Dr. Exchaquet (de Rolle) records a case of complete intestinal occlusion, lasting twenty-nine days, attended with faecaloid vomiting, ending in recovery. Dysuria (and, indeed, almost complete anuria) was a prominent symptom. The duration of this case is probably the longest on record. Messemer, of New York, warmly advocates cold water enemata in chronic diarrhoea. Robin points out two unknown characters of the urine in interstitial nephritis—the presence of a notable quantity of urohæmatine, and the existence under the microscope of amorphous pigmentary garnet masses. Dr. Dickinson met with ulceration of the bowel associated with granular kidney. In the April number of Virchow's *Archiv*, Beumer records forty-eight cases of congenital absence of one kidney, collected from various sources. At the last meeting of the British Medical Association, Grainger Stewart gave in his adhesion to the view that cirrhosis of the kidney is an inflammatory process. Byrom Bramwell records a case of large cystic tumour of left kidney in a

patient ten years of age; aspiration was performed, and recovery ensued. Also, a large solid tumour of left kidney, over which a murmur was heard, in a miner. Dr. Ord exhibited to the London Pathological Society a renal calculus containing indigo. Dr. Irvine showed to the London Pathological Society a dermoid cyst of the cerebellum, containing a sebaceous material and hair, from a child aged seven years. Mr. Fred. Treves, of Wirksworth, publishes a case of injury, further establishing the fact that bilateral destruction of the antero-frontal region causes neither motor nor sensory paralysis. Laveran reports a case of infarctus of the heart following thrombosis of a coronary artery. Hammer, of St. Louis, U.S., records a similar case, in which he recognised the lesion during life. Potain and Gubler have reached the conclusion that certain dilatations of the right heart are due to gastric and hepatic affections. Sourdes, of Nancy, met with a heart weighing 3lbs. 4oz. avoirdupois. Dr. Bell exhibited at Bradford a specimen of aneurism of the left ventricle of the heart. At the Bristol Society, Dr. Shingleton Smith exhibited an almost unique specimen of syphiloma of the heart. Dr. Peacock exhibited at the Pathological Society a specimen from a little girl ten years of age. An opening the size of a florin was found in the septum ventriculorum, the foramen ovale and ductus arteriosus being closed. A similar case is recorded by Rokitsky in his recent work. At the same meeting, Dr. Wickham Legg showed an aneurism of the right ventricle. Zahn, this year, directs attention to diseases of the diaphragm. He regards its degeneration as frequent, and describes brown atrophy, granular and fatty degeneration, and the waxy, or vitreous. Gowers, of University College, records a case in which a peculiar form of albumen occurred in the urine; heat rendered it opaque, but boiling cleared it up again. Stokvis has recorded something similar. The temporary existence of albuminuria is not incompatible with health, as the recent researches of Prof. Leube, of Erlangen, have shown. Truly, "of the making of many books there is no end," as the following list will show:—Additional volumes up to XXV. of Jaccoud's *Nouveau Dictionnaire*, fifth and

last volume of Reynold's System, concluding volumes (all but one) of Ziemssen's Cyclopædia, third edition of Roberts's Theory and Practice, fourth edition of Flint, second edition of N. S. Davis's Clinical Lectures, second edition of Bristowe's Principles and Practice, fourth edition of Green's Pathology, an Atlas of Illustrations of Pathology, Fasc. I. Dis. of Kidney (New Syd. Soc.), Shettuck and Sabine's Trans. of Orth's Compend. of Diagnosis in Patho. Anatomy, Shakespeare's Trans. of Cornil and Ranvier's Pathol. Histology, *Nouveaux Elements d'Anatomie Path., Descript., et Histol., par Laboulbène*, Delafield's Manual of Physl. Diagnosis (interleaved for notes), third edition of Bennett on Treatment of Pulmonary Consumption, Synopsis of Dis. of Larynx, Lungs, and Heart, by F. de Havilland Hall, Shepherd's Gulstonian Lectures on Pulmonary Consumption, *Du Diagnostic et du Traitement des Maladies du Cœur par Germain Sée*, second edition of The Heart and its Diseases, by Milner Fothergill, Berkhart on Asthma, McLane Hamilton on Nervous Diseases, The Localization of Cerebral Disease by Ferrier, Magnan on Alcoholism, Pavy's Croonian Lectures on Diabetes, Fothergill's Antagonism of Therapeutic Agents, and Finlayson's Clinical Manual for Study of Medical Cases.

SURGERY.

The surgery of the year presents a record of much interest and value. Mr. Messenger Bradley this year caps the climax of surgical triumphs by succeeding in securing the so-called "crowning glory of the antiseptic system—the organization of blood-clot in a wound—by a simple anhydrous dressing. Mr. Henry Smith reports a case of ununited fracture of the patella, in which he followed Lister's example of cutting down antiseptically, drilling the fragments, and uniting them with silver wire, with perfect success. Mr. Geo. Lawson records a case of fracture of the pelvis, in which the head of the femur was driven through the acetabulum, but no fracture of the femur was found. Mr. Berkeley Hill reports a compound fracture of the ilium, followed by parenchymatous inflammation of both parotids and death. Mr. Bellamy records a fracture of the

humerus at the deltoid curve, resulting from direct muscular action—throwing a cricket ball. At the West London Hospital, three cases of fracture of the pelvis are this year recorded, death in all being due to internal hæmorrhage from rupture of a large vessel. Terrier, of the Bicêtre, records a case of fracture of the sternum (fatal). Dr. Machell, of this city, records another, followed by recovery. Muhlenberg, of Reading, Pa., has invented a very simple and useful splint for compound comminuted fractures of the jaw. Collins, of the Jervis Street Hospital, Dublin, records a case of extensive compound comminuted fracture of the sphenoid, with rupture of the internal maxillary artery and subsequent necrosis, followed by recovery, in a boy aged fourteen. Dr. Senkler, of this city, reports a case of separation of the epiphysis of caput femoris. *Apropos* of fractures, it may be mentioned that Dr. Jarvis S. Wight reiterates his statement of the inequality in length of the majority of normal limbs. J. B. Roberts, of Philadelphia, confirms the assertion by the actual measurement of a number of skeletons; and Hamilton, who at first denied it, admits his error, and makes the *amende honorable* to Dr. Wight. Several examples of rare forms of dislocation are this year recorded. Hird, of Charing Cross, reports a dislocation of the astragalus, with fracture of the neck of the bone, from falling downstairs. Mayo Robson, of Leeds, records a luxation of the jaw during a paroxysm of hysteria, and also a luxation of the sternal end of the clavicle upwards. Mr. Goodall, of the Birmingham Hospital, records a genuine case of pure dislocation of the wrist—one of the rarest of accidents in surgery. It was verified by *post mortem* dissection. Dr. P. S. Conner reports a case of backward (subacromial) dislocation of the head of the humerus, with reduction on twenty-ninth day. Thos. Smith reports a reduction of luxation of shoulder with the heel in the axilla, in which, although no immoderate force was used, the pectoral muscles were torn through like parchment, but the vessels and nerves escaped. Death followed in nine days—a strong argument in favour of reduction by manipulation and a sad commentary on the old method. Uhde, Hage-

mann, and Boettger record a case of dislocation of the atlas, the right surface forward, the left backward. The luxation could not be reduced, but the patient gradually gained some power of moving the head, and there was also some improvement in the functions of the partially paralysed tongue and palate. Little, of Dublin, reports a case which may be regarded almost as a surgical anomaly—a genuine and uncomplicated dislocation of the spine. The fifth vertebra was symmetrically luxated forwards on the sixth, the displacement of the articular processes being complete. During life, no displacement could be detected on examination, even through the pharynx. There was loss of power over the upper limbs, but the boy walked into the hospital. Death occurred on the eighty-sixth day from gradually increasing dyspnoea. Voelker reports a unilateral luxation of the fifth cervical vertebra from muscular action. Reduction being effected, recovery ensued. Thoresby Jones records a dislocation of the sacrum forwards without fracture of any of the pelvic bones; confirmed by *post mortem* examination. Lücke, of Strasburg, records a case of necrosis of tibialis anticus, the extensor muscle of the great toe and the common extensor of the toes. The man fell upon the ice without observing much injury at the time. These muscles subsequently sloughed, in consequence, it is supposed, of embolism of the artery supplying them. McDonnell, of Stevens' Hospital, Dublin, reports a case of rupture of the tendon of the gluteus maximus. Mr. Robt. Roxburgh records a case of rupture of the quadriceps extensor cruris in both limbs, in which Mr. Lister cut down antiseptically and tied the ends together with carbolyzed catgut, with good results. Güterbock reports a case of subcutaneous rupture of the tendon of the triceps brachii. The testimony of the year as to the great utility, success, and convenience of Sayre's method of treating Pott's disease of the spine by the plaster of paris jacket is almost universal. The use of his self-suspending swing in lateral curvature is also highly approved. Messrs. Samson Gamgee, Heather Bigg, and Golding Bird have devised various minor, but still important, improvements in his suspending apparatus. Mr. Maunder's horse-shoe

wire addition to the collar is a considerable advantage, as is also Mr. Thos. Cook's water padded collar. Mr. Adams has had good results from the use of poroplastic felt, instead of plaster of paris, applied during suspension. At the Bath meeting of the British Medical Association, Dr. Walker, of Peterborough, demonstrated his method of applying Sayre's jacket in the recumbent position. Mr. Pearce Gould and Mr. Jno. Ewens (of Bristol) report favourably of the treatment of spina bifida by Morton's iodo-glycerine solution. Although of late years the great progress of surgery has been in the direction of the conservation of parts, yet the science of their removal has not been at a standstill, as the following cases serve to show. Geo. F. Schrady and J. W. Howe have practised the bloodless removal of the tongue for cancerous disease by the preliminary ligation of the lingual arteries near their source. It is believed, moreover, that this practice tends to prevent recurrence. Mr. Lund, of Manchester, has repeated Whitehead's operation of excising the tongue with a pair of scissors only. Mr. Wood, of King's College, successfully removed a tongue for epithelioma by passing the chain of the ecraseur through an opening made in the neck above the hyoid bone after division of the parts in the floor of the mouth with scissors. The stump was touched with chloride of zinc. The only objection to this procedure is the long time the wound in the neck usually takes to heal. Mr. Coppinger, of the Mater Misericordiæ Hospital, Dublin, records two cases of removal of tongue by ecraseur by a new method. A curved needle, threaded with a cord attached to the chain of the ecraseur, was passed from side to side through the root of the tongue, and the tongue then separated from the floor of the mouth by the ecraseur cutting from behind forwards. A button hole was then made in the cheek corresponding to the front edge of the masseter, through which the loop of the ecraseur was passed from side to side, and the tongue drawn forward through the loop and slowly divided. There was no bleeding, and the wound in the cheek was healed in two days. Dr. Lyster reports the bloodless removal of the tongue with the thermo-cautery.

Dr. Murphy, of Wilkesbarre, Pa., reports a successful amputation at hip joint for an osteocephaloma of femur. Verneuil obviates hæmorrhage by ligating the vessels before amputating. Mr. Davy records two cases in which he controlled hæmorrhage by means of a stick passed into the rectum and compressing the iliac artery against the pelvis—a method which he suggested four years ago. Tillaux disarticulated at the hip with the galvano-cautery. There was no bleeding, but the woman subsequently died of purulent infection. Langenbeck, at the late Congress of German surgeons, showed a case in which he performed disarticulation at the elbow, an operation which has fallen into disgrace. Dr. Knauth records a case of traumatic resection of the scapula followed by recovery. Brigham, of San Francisco, reports the subperiosteal excision of entire scapula (for necrosis) and the head of the right humerus with recovery and full use of hand and forearm and partial use of arm. Gundrum, of Ionia, Mich., reports the successful extirpation of the scapula with a portion of the clavicle and entire arm. The cotton wool dressing was employed. Peters, of New York, records the successful removal antiseptically of the entire scapula for cancerous disease. Recovery with useful arm. Mr. Marrant Baker records the successful excision of ankle in a child aged seven years and a-half. Mr. Bradley exhibited at the Manchester Society a little girl half of whose lower jaw he had excised subperiosteally, and in whom almost complete bony restoration of the jaw had occurred. Schede reports the successful resection within four months, in the same patient of both wrists and elbows, as well as both ankles, for rheumatic arthritis, with bony ankylosis. Mr. West, of Birmingham, successfully removed the astragalus, scaphoid and cuboid bones for the cure of a talipes equino-varus in the adult. Mr. Lund successfully removed the astragalus in a case of extreme varus. Mr. Adams has introduced a useful modification of Scarpa's shoe. Mr. West records the successful removal of an exostosis antiseptically. He applied Esmarch's bandage, cut down upon the tumour, and removed it with chisel and mallet. Mr. Field, of St. Mary's Hospital,

successfully treated an ivory exostosis of both ears, and Solis Cohen, of New York, one of one ear by drilling it with the burr of the dental engine. The correction of deformities by bone section is making rapid strides. MacEwen, of Glasgow, records an antiseptic osteotomy of internal condyle of femur with the chisel—good result. Ogston's operation has been several times successfully performed by Mr. Jones, of Manchester. Mr. Reeves successfully performed on two occasions during the year, extra-articular osteotomy for genu valgum by a new method. It differs from Delore's, Ogston's, Max Schede's, Annandale's, and MacEwen's, in the use of the chisel and in cutting only to the cartilage, the chisel being then used as a lever to prize the condyle inwards, the leg being then forcibly straightened. As indicating a possible and very unfortunate mishap, Mr. Barker reported to the Clinical Society of London, a fatal case of Ogston's operation in a patient aged six years. All went well; the operation was done antiseptically, and the limb put up in plaster. Next morning the temperature was $99^{\circ}.8$; a few hours later it rose to $105^{\circ}.4$. Next day consolidation of base of right lung was found. No inflammation about the joint. Death took place forty-eight hours after the operation, and the autopsy revealed septic pneumonia with hæmorrhagic infarcts of inferior lobe of right lung. Petersen, of Kiel, recommends carbolic acid injections in chronic inflammatory affections of the joints. Martin's India rubber bandage has proved very effective in various diseases and injuries of the joints; the equable pressure, heat, and moisture, together with immobility, which it secures fulfilling nearly all indications. We are pleased to observe the extension in the old world of the American system of treating chronic joint affections by constant extension, permitting of mobility. Mr. Maunder records the successful removal of a cystic tumour of lower jaw without external incision. The use of the antiseptic system in surgery is becoming quite generalized in hospital practice, but the difficulties and expense of its application must prove an insuperable bar to its general adoption until these objections can be removed. Doubtless the results

of the excessive care and attention to minutia which the system inculcates will always be attended with the most gratifying results. Mr. Chiene's and Mr. Messenger Bradley's endeavours to cheapen its application are worthy of all imitation. Ranke, of Halle, highly extols the use of thymol in antiseptic surgery. Mr. Howard Marsh records a case of hæmorrhage following operation for cleft palate which was arrested by plugging the posterior palatine canal. Foulis, of Glasgow, records removal of a tumour of soft palate extending down into the tonsil by, having first performed laryngotomy and plugged the larynx with sponge, slitting the cheek from the angle of the mouth to the angle of the jaw, and then sawing through the ramus at the angle—thus getting plenty of room and free access. After removal of the tumour, the rami were sutured with silver wire and the incision in the cheek sewn up. First-rate recovery followed. Mr. Henry Smith this year records a fourth series of cases of hæmorrhoids which he has operated upon with the clamp and cautery. This brings his total up to 530. On the last two hundred and fifteen occasions, there has been no death or other serious mischief to record. Dr. W. Wannebroucq regards the treatment of internal hæmorrhoids by forcible dilatation as more convenient and successful than any other. "The battle of the ligatures" has not yet been decided. The advocates of catgut report their successes, the opponents their failures: the old silk and metallic ligatures command the respect of all, but a material which will not interfere with primary union, nor require removal, is undoubtedly a great desideratum. The liability of the knot of the animal ligature to yield or come undone, and the possibility of its too rapid absorption, frets the surgeon's mind with a feeling of insecurity. Tendon ligatures from the tail of the kangaroo have been used in Australia, and are said to be superior to catgut, being more angular, and slipping less readily, and not so speedily dissolved. Mr. Callender exhibited some at the Clinical Society, and proposed to have some made from the tail of the horse. The great record of the year in the surgery of the vessels is instructive, as the following cases make apparent:—Dr. Porcher,

of Charleston, records an unsuccessful ligation of the common carotid at its lower third as a warning against the use of animal ligatures. Mr. Barwell records two cases of successful treatment of innominate aneurism by ligation antiseptically of the subclavian and carotid. Dr. Byrom Bramwell contributes to the *Edinburgh Medical Journal* notes of seven cases of aneurism (six aortic) greatly benefitted by rest and iodide of potassium. M. Broca reports a case of aneurism of the arch of the aorta successfully treated by the application of collodion. Drs. Selion and G. Polli also record (each a case) successful treatment by the application of ricinated collodion. Mr. H. L. Browne (West Bromwich Hospital) reports a case of aortic aneurism apparently cured by galvano-puncture, followed by relapse on leaving the hospital. Dujardin-Beaumez contributes further testimony to the value of electro-puncture in aortic aneurism, and also in favour of iodide of potassium. Paul, Potain, and Bucquoy also speak favourably of iodide of potassium and ice. Markham Skerritt, of Bristol, reports an abdominal aortic aneurism in which, owing to a variety of circumstances, distal compression was the only form which could be put in force. This was employed, and rupture into the retroperitoneal tissue resulted. Mr. Lund records a large axillary aneurism cured by digital compression; and Mr. Hulke one treated by rest and restricted diet beneficially. Mr. Croft records a popliteal aneurism rapidly cured by flexion and digital compression; another in which the elastic bandage interrupted at tumour was applied for an hour, followed by digital compression of femoral for six hours. Mr. Barwell, in a case of popliteal aneurism, after several futile applications of Esmarch's bandage, successfully tied the femoral with catgut antiseptically. Mr. Hebert Page and Mr. Lane, of St. Mary's, report similar cases. Dr. Ferguson, of the Cheltenham Hospital, records the successful treatment of a popliteal aneurism by a modification of Reid's method, viz.: by the proximal application of an india-rubber cord, about the thickness of the little finger twice around the limb. Several days of preparatory treatment by rest, restriction of liquids, and the admin-

istration of iodide of potash, as suggested by Balfour, preceded the application. Mr. Cornish reports an aneurism of the anterior tibial rapidly cured by Esmarch's bandage. Mr. Davies Colley records a rare case of spontaneous aneurism of the ulnar artery cured by ligation of the brachial. Dr. Gabrielle, of the Italian navy, treats varices by applying a thin strip of lead ($\frac{1}{2}$ line thick) over the veins with a roller bandage. Probably the simplest and most successful method is by the constant use of one of Martin's rubber bandages. The large subject of the dressing of wounds has been pretty fully ventilated this year, especially at the Paris Académie de Médecine. Advocates were not wanting: for every imaginable method and adherents to one plan could see no virtue in another. The antiseptic men are daily growing stronger, but some follow Listerism, and others profess his creed but desert his practice. Some hold the Russian open-method to be most antiseptic of them all, as no discharges can be retained. Some advocate thymol and thymic acid, others, powdered charcoal and simple mud. Some regard moisture in wounds as the "*fons et origo mali*"; and the followers of Jules Simon and his pneumatic apparatus place their wounds *in vacuo*, for the air is poison. Alphonse Guerin and his disciples surround their wounds with a protective wall of cotton wool and swaddle the whole with interminable bandages; while a few, with Sampson Gamgee, at their head, look at the matter sensibly, fulfil apparent indications, secure rest and freedom from pain, and do not for a moment doubt Nature's ability to heal. Wiss again directs attention to Peruvian balsam as a valuable dressing; Mr. Furneaux Jordan highly extols the utility of sponge as a surgical dressing, and lauds terebene as an antiseptic application. Dr. Flashar, of Polknitz, reports favourably of sheets of carbolised intestine, asserting that cicatrization occurs rapidly beneath it. Mr. Spencer Watson has designed a very ingenious and not unsightly instrument for correcting deformities of the nose (it is made by Krohne and Sesemann). A case was this year reported at one of the London societies which had been diagnosed as a fusiform neuroma, but which at time of operation turned

out to be an abscess of the median nerve. Drs. John Duncan and Balfour speak favourably of acupuncture of the nerve in obstinate sciatica. Mr. Chiene, Mr. Bell, and Mr. Symington contribute further cases in support of nerve-stretching in this disease, as do also Drs. Macfarlane, of Kilmarnock, and Wm. A. Bird, of Quincy, Ill. Dr. Laurie, in the *Indian Medical Gazette*, reports thirty cases of anæsthetic leprosy, in which he employed nerve-stretching, with benefit in all. Dr. T. G. Morton, of Philadelphia, in January last, successfully treated an obstinate case of elephantiasis arabum, in which the femoral artery had once been tied without success, by section of the sciatic nerve. Huber records an instance of that rare form of sarcoma designated chloroma, in a girl aged twenty-one. It occurred primarily in the breast, and was removed. Death occurred from widespread recurrence seven months after its first appearance. Bouchut reports the successful treatment of cancer of the breast by compression of the gland by vulcanized caoutchouc and cotton batting. Langenbeck removed a cancerous tumour from between the pharynx and larynx, but the patient died from retention of mucus and discharge in the bronchi. Gies recommends parenchymatous injections of glacial acetic acid in carcinoma. Dr. Thin exhibited at the London Pathological Society a cancerous ulcer of the skin of forty-three years' duration removed by Sir James Paget. It was neither lupus nor epithelioma, but rather that rare form of disease which Verneuil has described as adenoma of the sweat glands. Billroth removed a lipoma, weighing forty-four pounds, from the back of a man seventy-one years of age: thirty-five catgut ligatures, and thirty-six sutures, and a drainage tube were inserted, the dressing conducted antiseptically, and the patient left the hospital on the eighteenth day. Mr. Bell, of Edinburgh, in an amputation of the breast, introduced a new method of drainage. A tube three feet long, perforated at upper end, was stitched into the wound, the lower end being placed in a six-ounce bottle half full of carbolic lotion (1 to 40):—loose gauze was packed around the tube to prevent the entrance of air. Horse hair and catgut have been favourably reported on as drains for wounds.

Mr. Harrison Cripps has called attention to the infrequency with which it is necessary to ligate the common carotid for punctured wounds of the neck or tonsillar hæmorrhage. Ligation of external carotid almost always suffices in these cases, and if it do not, it is easy to extend the incision so as to reach the common carotid. At the Clinical Society this year, Dr. Yeo and Prof. Lister brought forward a case of papilloma of the larynx successfully removed by laryngo-tracheotomy. The true and false vocal cords were entirely removed, and yet (to everybody's surprise) the patient was able to speak, phonation being effected by vibration of the aryepiglottic folds. Tracheotomy by the galvano-cautery appears to remain in favour with the French surgeons, and some English surgeons have spoken favourably of it. Dr. Cheadle records a case of gangrene of the lung, following tracheotomy, for diphtheria. The child recovered from the diphtheria, but succumbed to the gangrene. No similar case has been recorded by either Jenner or Trousseau. Dr. Lewis Henry speaks highly of Bose's Tracheotomia Superior as a bloodless method of getting into the windpipe in children. This is now pretty generally adopted in Germany. Mr. Annandale records the successful removal of a rare œsophageal polypus by the ecraseur. Dr. McKeown, of Belfast, records a successful case of œsophagotomy for the extraction of a set of false teeth which had been swallowed. Trendelenburg reports a successful gastrotomy. By means of a tube running from the mouth to the gastric fistula, the boy is able to chew his food and blow it along the tube into the stomach. Mr. Harrison Cripps performed gastrotomy upon a case of acute intestinal obstruction in a boy. Injection and inversion had previously failed, and opium was administered. This was the mistake: the symptoms were masked by the drug and operation so long delayed that the patient was exhausted; a tight fibrous band was found constricting the bowel, and was divided; several feet of intestine were examined, but not more than a few inches exposed at a time, they being returned at the upper end of the wound as fast as drawn out at the lower. Diarrhœa set in, and death occurred on the eighth day from exhaustion. No per-

tonitis found *post mortem*. Dr. W. C. Arnison, of Newcastle-on-Tyne Infirmary, performed splenotomy on the 29th of September. The spleen weighed seven pounds thirteen ounces. Death occurred five hours after operation, from shock rather than hæmorrhage, and transfusion of milk was without avail. Dr. Martin, of Berlin, reports a successful case of splenotomy in a hunchback woman who suffered from a wandering spleen. Dr. Marion Sims performed the operation of cholecystotomy on a lady in Paris on the 18th of April last. The gall-bladder was incised and the edges of the incision stitched to the abdominal wound. Sixty gall-stones were removed. The patient did uninterruptedly well for six days, but slight oozing of blood then occurred from the edges of the gall-bladder and from the mucous membrane of the stomach, these passive hæmorrhages being due to choletoæmia, and ultimately proving fatal. Mr. George Brown, of London, also performed cholecystotomy this year. His patient recovered sufficiently to go to church and to attend to household duties. Studsgaard, of Copenhagen, this year successfully removed a foreign body from the sigmoid flexure of the colon by abdominal incision. Mr. T. H. Walker records a case of rupture of the colon from the kick of a horse, with survival during twenty-one days; death appearing to be due to indiscretion, on the part of the patient in sitting up and smoking. Mr. Maunder places on record a couple of cases in which irreducible herniæ were rendered reducible by prolonged rest and diet. Dennis Dumont records two cases of intractable hernia (1 femoral, 1 inguinal) reduced by Esmarch's bandage. Mr. Wood records a case of irreducible omental hernia in which he operated, and also successfully performed his operation for the radical cure. Dr. Eben Watson has this year successfully performed Wood's operation for radical cure, as has also Dr. Tivy. Dr. Alexander Patterson records a rare and anomalous case of inguinal hernia in which he operated successfully. There was no vomiting, retching or hiccough, the tumour was hour-glass in shape, and the intestine had become almost gangrenous in ten hours. Dr. Wellington Campbell, of New York, records a case of femoral hernia in a man

in which he operated successfully, and in which, although strangulated for ten days, there was no gangrene. Mr. J. Arthur Kempe, of the Great Ormond Street Hospital, directs attention to phymosis as a not infrequent cause of rupture in children. Prof. Kocher, of Berne, extirpated the left kidney of a child two and a half years old for a new growth. The tumour was removed through the abdominal wall as in ovariectomy, but the child died on the second day from peritonitis. Mr. Lucas reports a successful treatment of abscess of the kidney by aspiration. Dr. Brown, of Barnsbury, brought to the Islington Society a human bladder containing three stones, weighing in all $1\frac{1}{4}$ lbs. less 20 grains. Dr. Dunlop exhibited at the Glasgow Society a urethral calculus, weighing six drachms. Mr. Southam, of Manchester, records four cases of cystine calculi; though only now recorded, they were not met with this year.

(To be continued.)

THE THERMAL DEATH POINT OF SEPTIC ORGANISMS.—Some very careful experiments on this subject have lately been rehearsed to the Royal Society by the Rev. W. N. Dallinger. He found septic organisms living after exposure to a heat of 250° Fahr. He proceeds in his narrative:—I followed this with four more experiments, separately and successively made. Two of them were at a temperature of 248°, and two at 252° F. In both of the former, at the end of nine or ten hours, the complete organism in full vigor could be seen; and in one of the cases it was discovered in the still condition shown at Fig. 20, Plate 2, and watched until the organisms had attained the condition indicated in Fig. 24, Plate 2. But in the two latter instances (heated up to 250°) the living form did not reappear during the six days following, although repeatedly looked for. I concluded, therefore, that the temperature of 250° F. was the limit of endurance which the spore of this form could bear by this method of heating. Boiling water, therefore, would not destroy these germs.

TORONTO GENERAL HOSPITAL.—Dr. Zimmerman has been appointed pathologist to the Toronto General Hospital.

Selections: Medicine.

PROPHYLAXIS OF HEMIPLEGIA.

BY W. E. THOMSON, M.D.

(Concluded from our last.)

Another character of this diseased pulse, besides incompressibility, is that it is *long*; that is, it does not pass quickly and abruptly under the finger, but with an evidently prolonged vibration. A long pulse is the opposite, not of a rapid or frequent pulse, but of a *short* pulse. You may have a very rapid and yet *long* pulse, as in some dangerous convulsive states, like puerperal eclampsia, and, on the other hand, some very slow yet short pulses, as in some cases of anæmia. Whenever the arterial system is quite clear, and the blood can course freely through it, whether your patient be healthy, weak, or in a high fever, the pulse will be *short*, quickly passing under the finger; whenever, on the other hand, the outflow from artery to capillary and vein is obstructed in the artery, whether by nervous spasm or arterial disease, the pulse wave is retarded, and therefore prolonged.

Now, what is the explanation both of the incompressibility and the length of the pulse here? They mean simply that the arteries are constantly *over-full*. They are always in a state of tubes fully opened at one end and partially closed at the other, so that from narrowing or total obliteration of multitudes of the terminal vessels or arterioles by disease, the larger vessels are in a condition of chronic distension. With this reason for the incompressible pulse we have also the explanation of the long pulse, for, as we have just remarked, were the arterioles and capillaries all free, the pulse impulse would pass quickly through, whether the heart was beating slowly or rapidly, strongly or feebly, but the fuller the arteries, the longer does it take the wave to overcome the resistance of the dammed up current.

We are now prepared to answer the main practical question—What is it that has wrought this physical change in the arteries from the healthy state? and the reply, in nineteen cases out of twenty, is *toxæmia*, or chronic poisoning of the blood from deficient action of the excret-

ing glands. In some cases the liver is largely responsible, owing to failure on its part to form urea, uric acid being generated in abnormal amount instead. An incompressible pulse is therefore very characteristic of gout, a disease of middle and past-middle life, and also occurs in children during and after scarlet fever, when, quite apart from nephritis, uric acid is often present in excessive quantity. But the most irritating blood by far, to the inner coats of arteries, is the poisoned blood of Bright's disease, and to such an extent is this true, that some authors ascribe three-fourths of the cases of hæmorrhagic apoplexy to granular kidneys. It is, however, by no means only those who have albumen and casts in their urine who have dangerous arteries, for often the blood becomes similarly contaminated, and the vessels diseased, in persons who, without habitually passing albumen, nevertheless habitually pass urine of a *low specific gravity*. Except in those cases of nervous disorders which are characterized by an abundant flow of limpid urine of a low specific gravity, such as cases of spinal exhaustion from excessive venery, a habitual condition of this kind in the urine is indicative of the damaged or imperfectly working kidneys, if not of cirrhotic liver as well; and such persons will be found to bear surgical operations very badly, to succumb quickly to fevers, and constantly to show, on examination, that their arteries are the very reverse of healthy. In fully-developed Bright's disease, of course, the arteries quickly turn hard and brittle at any period of life. I have noticed such blood-vessels in children who had this affection, and I believe that all recorded instances of hæmorrhagic apoplexy in children have had this element noted in their history.

With this statement of the condition which causes a liability to vessel rupture, we will conclude by enumerating the immediate exciting causes that may determine the occurrence of the accident itself.

First, such arteries are likely to be subject to the caprices of a more powerful heart than ever happens to healthy arteries. The heart has to increase in size and strength in order to balance the growing difficulty in the arterial flow; but unfortunately the poisoned blood of

Bright's disease often deranges the great nervous mechanism which regulates the distribution of blood, so that we may have, on the one hand, violent action of the hypertrophied heart occur; or, on the other hand, spasm of the walls of the arterioles with greatly increased arterial tension in consequence; or both together. Influences which would excite the vaso-motor nerve-centres only moderately in health, may act very immoderately in Bright's disease, and put the weakened walls to an excessive strain. Thus the first shock of a mental emotion, like anger or fear, causes paleness from sudden contraction of the arterioles, when the heart may begin to beat violently before the arterioles begin to relax. A fit of passion, therefore, often induces an apoplectic attack. Extreme cold weather also generally increases the list of sudden deaths from apoplexy in the obituary columns of the newspaper; for the lessened circulation of the skin not only increases that of the internal viscera, but the skin also ceases then its usual assistance to the function of the kidneys. Toxic disturbance of vaso-motor centres is moreover common during the latter hours of the night, as we find illustrated by the usual occurrence then of attacks of asthma, epilepsy, gout, nightmare, and uræmic dyspnoea, and hence also the many instances of persons found dead in their beds from apoplexy, especially in cold weather. Another common cause is the addition of a large element of nitrogenous food by a hearty meat meal, for it is well known that, in health, the kidneys immediately answer such an addition by a corresponding increase in the elimination of urea; but if they are embarrassed by disease, they may suddenly, and critically, fail to do so. On this account apoplectic attacks are especially frequent shortly after a meal. Congestion of the cerebral veins and sinuses by stopping expiration, as in lifting, coughing, vomiting, stooping, or in defecation, of course strain the cerebral arteries by retrograde action on the outflow; and lastly, we must be assured that the arterial system is not much diseased whenever we recommend a person to take Russian or Turkish baths. When the body is immersed in watery vapour, the skin can add from one to six pounds of water to the volume

of the circulation in a few minutes, and on that account most people experience an unpleasant sensation of fulness of the head on first entering these baths, and which does not pass off until a free perspiration relieves the over-distension of the blood-vessels.

Besides the negative advice of avoiding or providing against the exciting causes of vessel rupture just enumerated, what measures should you recommend one to take in whom you find the signs of arterial disease?

First in importance, we may say, comes the subject of diet, for when the elimination of urea by the kidneys is imperfect, the nitrogenous element of food ought to be reduced to as low a point as is compatible with ordinary life. That nitrogenous food is consumed greatly in excess of the actual needs of the economy in the dietary of this country, is amply proved, not only by the contrast in the use of animal food between us and the Asiatics, for instance, but also by the prevalence among us of kidney disease. An animal diet, *cæteris paribus*, always increases arterial tension, and a vegetable diet diminishes it, and so soon as embarrassment of the kidneys occurs, this difference of effect between these foods becomes immediately exaggerated, somewhat like the exaggerated susceptibility to saccharine excess in diabetes. If the patient objects to entire restriction from meat, he may then be recommended to take it at one of the two earlier meals of the day, and not at night. The healthiest article of nitrogenous diet is milk, but used only as it is taken by the nomad peoples who have to live largely upon the milk of their flocks and herds. It is singular that the significance of the practice, universal, as far as I know, among such races, of artificially souring milk before using it, is not often alluded to in our books on dietetics. Among the Arabs, and in fact among all the different races of the Turkish Empire, sweet milk is hardly ever even tasted, while soured milk is used constantly, in many cases with every meal, constituting, next to bread, the chief food of the peasantry, and still more so of the wandering Bedouin or Tartar. As soon as the milk is brought into the tent from the cows, goats, sheep, asses, or mares, while yet warm, it has a certain proportion of sour milk

added to it from the previous day's stock, and the milk is then warmed slightly to hasten the fermentation. The *original ferment is derived from yeast*, and hence this artificial souring of the milk is wholly different from milk when it is left to sour spontaneously, for that, on the contrary, is the first step in its putrefaction. Now the superior digestibility of soured milk is due to the fact that the stomach is spared the task of curdling the milk itself, preparatory to its further digestion. The curdling of milk in the stomach must necessarily consume a considerable quantity of gastric juice, and many persons even in health, and *à fortiori*, most invalids, find their digestive secretions scarcely able to accomplish more than this initial curdling, so that the latter stages of milk digestion are so imperfect that they find this article constipating, or "bilious." This soured milk, however, I have never found indigestible, but, on the contrary, of especial benefit to phthical patients, as well as in Bright's, and many other constitutional diseases. It can readily be made in this country by taking half a pint of fresh milk, all the better if still warm from the cow, and then warming it to a blood heat. Add to this two table-spoons of yeast. In six or eight hours it is curdled enough to take two ounces of it for curdling another half pint, and this is to be repeated till the fifth or sixth specimen has been soured, when the bitter taste of the yeast originally added, is no longer distinguishable. After this, milk may be soured every day from the milk of the previous day. This milk has a peculiarly pleasant acid flavour which I have found universally acceptable, even to those who were strongly prejudiced against milk in any form. It is best served well stirred, and eaten with bread, and may be sweetened with sugar, if so desired. Another agreeable form of using it is to hang up the soured milk in a linen bag till the whey is drained off, and then the residue used when about the consistence of whipped cream, sweetened with sugar, and spread, like butter, thickly on bread.

Fresh fish is better than meat, and eggs taken in moderation; but all vegetables (except asparagus), and all fruits, may be used freely. Of the beverages, tea and coffee can scarcely be

regarded as injurious to any persons when used only once a day each, but a slight excess of tea is harmful in any case where the heart is much damaged, from its aggravating the flatulence and acidity of the congested stomach, and from its special tendency to derange the rhythm of the pulse. All alcoholic drinks, without exception, should be forbidden, and especially malt liquors.

In health, a walk in the open air immediately lowers the tension of the arterial pulse, or, as the common expression is, softens it. Let a patient with gouty, or even uræmic, blood, be examined before starting on an open air trip in the country, or at the seaside, and then afterwards, and the change from an incompressible to a soft, naturally compressible pulse is often surprising. So all muscular exercise lowers arterial tension, whether in health or in disease. This effect is plainly due to the increased oxidation of effete products by active respiration, and hence, next to temperance in eating and drinking, habitual good, free breathing is the best of safeguards against apoplexy or hemiplegia. You should warn such patients, however, against all forms of fatiguing exercise, for as a class they are poorly provided against the effects of overstrain of any kind.

The medicines best calculated to remedy arterial degeneration, and hence to be used as prophylactics of hemiplegia, are iron and the corrosive sublimate. With the steady employment of the latter agent, in small doses, I have repeatedly noticed the specific gravity of the urine increased, and a restoration of the normal colouring-matters and salts take place, while an improvement in the head symptoms, above mentioned, and a lowering of the arterial tension, has accompanied this change in a fashion too unmistakable to be ascribed to other agencies. The dose should not exceed $\frac{1}{30}$ th of a grain, three times a day, and is to be continued as long as no symptoms of mercurial disorder appear, when, if so, it may be intermitted for a while. Iron is the great respiratory food of the body, and therefore is to be given whenever we fear muscular degeneration. Muscular power is, in all animated nature, invariably proportioned to the activity of the respiration, and hence the exceptional strength of the muscles of insects. On this account, if you fear degeneration of the cardiac walls, or like change in the muscular fibre of the vascular system generally, this carrier of oxygen is one of the best of restoratives.—*N. Y. Record.*

POINTS CONNECTED WITH DIABETES.

BY F. W. PAVY, M.D., F.R.S.

* * * * *

Such is the argument which leads us up to the consideration of glycosuria as a phenomenon of diabetes mellitus. I conceive it may be assumed that what is true for diabetes artificially induced may be taken as also holding good for diabetes of pathological occurrence. There is no reason to believe that the source of the glycosuria in the two instances is different, and it appears to me that support to this conclusion is given by the state in which the tongue is found in the most aggravated cases of the disease. Frequently, for instance, it may be noticed that the tongue presents an exceedingly injected appearance. Its bright red colour points to the existence of a hyperæmic state—the state that would be occasioned by a vaso-motor paralysis. The idea suggests itself from the aspect presented that the blood is flowing through the organ without being properly deprived of its arterial character. Now, just such a condition existing in connection with the chylo-poietic organs would suffice, as I have furnished evidence to show, to give rise to glycosuria. That the tongue, belonging as it does to the digestive system and the chylo-poietic organs, should be affected alike is nothing for us to be unprepared for. It is in the worst kind of case, as I have said, that the tongue presents the appearance indicated, and the tongue being thus implicated may be taken as simply expressing the existence of a wider extent of vaso-motor paralysis than where no such appearance is noticed.

The problem remaining to be solved is the nature and seat of the lesion of the nervous system, which forms the primary morbid condition in diabetes. There are various considerations connected with the disease which point to the brain as being the most likely part from which the morbid influence starts. We know that by operating upon the medulla oblongata and the sympathetic system diabetes may be artificially induced; but it is not necessary that attention should be confined to these structures, for it is also known that in them only resides a part of the vaso-motor system. The observations of Eulenberg, which are corroborated by those of Brown-Séquard, have shown that the

state of the arteries is affected by lesion of certain parts of the grey matter of the brain, and it is suggested that the vaso-motor nerves distributed in the sympathetic, besides being connected with the spinal cord and the medulla oblongata, pass up to spots at the surface of the brain, which stand in the position of cerebral vaso-motor centres.

I certainly incline to the opinion that some kind of textural change in the brain stands at the foundation of diabetes, and there are two ways in which the effect may be produced. The vaso-motor system exerts an influence upon the arteries, which gives them their *tonus*, or keeps them in a certain state of contraction. The effect of destruction of the centres or tracts is to lead to arterial dilatation, by causing direct paralysis of the muscular coat; whilst that of irritation is the converse. These results are in harmony with what occurs under similar circumstances in connexion with the cerebro-spinal system, and are therefore intelligible enough to us. Arterial dilatation, however, may be induced in another way—viz., by an action of the cerebro-spinal system controlling or inhibiting the activity of the vaso-motor system. Reference to what may be perceived in connexion with the salivary glands will supply us with an illustration of the occurrence of this mode of dilatation.

Whilst the glands are in a state of quiescence, the arteries are maintained in a comparatively contracted condition by the influence of the vaso-motor nerves they receive from the sympathetic. Now common observation shows us that a flow of saliva, which means an antecedent dilatation of the arteries, may be excited by a stimulus applied to the surface of the tongue, and so influencing the extremities of the lingual gustatory nerve, and even by an impression starting from the brain and originating in a passing thought about food. The explanation which physiological science gives of this phenomenon is that a stimulus is transmitted from the cerebro-spinal system which produces an inhibitory action upon vaso-motor centres or nerves that relaxes the muscular coat of the arteries, and thus permits dilatation to occur. This may be considered to constitute an active form of vaso-dilatation, in contra-distinction to

that arising from paralysis induced by operations upon the sympathetic, which lead to a simple removal of vaso-motor influence.

There being these two modes of action by which vaso-dilatation may be brought about, it may happen that diabetes may arise either from a lesion affecting and involving a loss of power in vaso-motor centres, or a lesion in some part or other of the cerebro-spinal system leading to an inhibitory influence being exerted upon them.

Dr. Dickinson states that he has recognised certain vascular and perivascular changes in the brains of those who have died of diabetes. My colleagues, Drs. Frederick Taylor and Goodhart, however, in an article "On the Nervous System in Diabetes," published in the *Guy's Hospital Reports* for 1877, have disputed the validity of his conclusions. The point in question is out of my own line of investigation, and I cannot therefore pretend to offer an opinion upon it; but this much I may say, that I hope in the interests of science Dr. Dickinson will continue and extend the inquiries he has begun, for I am sure it will be admitted that he possesses qualifications which especially fit him for such work. The ground I consider has been prepared by physiology, and we must now look for the fruits derivable from the assistance of pathology.

I may state, and I desire that the statement should only stand for what it may appear to be worth, that my clinical experience has led me to form the idea that diabetes presents an alliance as regards the character of its progress to locomotor ataxia and progressive muscular atrophy. We have in each of the cases different manifestations of disordered nerve-action to deal with; but, as in the diseases named, diabetes, certainly as it occurs among young subjects, is a truly progressive affection. For instance, when such a subject falls under observation during the early period of the disease, it will be found that by dietetic management alone the urine may be deprived of sugar and the health restored. Later on sugar reappears, notwithstanding the most rigorous dietetic management be persistently adopted. It may happen now that the administration of opium, morphia, or codeia will again remove

the sugar. Again, however, the urine becomes saccharine, and the saccharine character gradually augments. With this the patient notices that he is losing ground in general health. He experiences more or less of a return of the old symptoms which troubled him at the outset before his eyes were opened to the nature of his complaint. No impression can now be made upon the disease as formerly, and it appears to me we can only assume that the pathological condition which is at the bottom of it must have gradually advanced. The ordinary duration in these progressive cases, I think I may say, is about two years. Sometimes it is much shorter, sometimes longer; and, as in locomotor ataxia, the condition may advance to a certain point, and there remain stationary for a shorter or longer while, the patient during this time being able by strict attention to treatment to keep himself in a fair state of health. These remarks do not apply to the disease in elderly persons, for here, if the proper management be pursued, the tendency is towards progress in a right direction, if not even recovery, instead of towards an unfavourable issue.

This brings to a conclusion the remarks which you, Mr. President, by the honour you conferred upon me in appointing me to deliver these lectures, have afforded me the opportunity of making upon a subject which has always been of much interest to me. Whatever may prove to be the final issue of the investigation, the views I have expressed—are those which, after a close attention to the subject for now upwards of twenty years, I have been led, rightly or wrongly, to frame.—*London Lancet.*

TREATMENT OF PSORIASIS.—M. Galuzinsky, in the *St. Petersburg Med. Wochenschrift*, recommends highly crystallized carbolic acid \mathfrak{zj} , dissolved in \mathfrak{zj} of collodion, and brushed over the affected portions of the skin. When the eruption is limited, it may be all brushed over at once, but where it is extensively diffused, a gradual application is preferable, say one day an arm, and after two or three days the other arm, or foot, &c. The application is not repeated as long as the collodion remains fixed to the skin. The application must continue as long as the eruption is red and infiltrated. The treatment, on the whole, may require two, three, or more months.

Original Communications.

MEDICAL EVIDENCE OF COURTS OF LAW.

BY DANIEL CLARK, M.D.,

Superintendent of the Asylum for the Insane, Toronto, Ontario.

(Continued from our last.)

Dr. Forbes Winslow, in his "Anatomy of Suicide," says:—

A man may allow his imagination to dwell on an idea until it acquires an unhealthy ascendancy over his intellect. Surely, if, under such circumstances, he were to commit a murder, he ought to be held as a murderer, and would have no more claim to be excused than a man who has voluntarily associated with thieves and murderers until he has lost all sense of right and wrong: and much less than one who has had the misfortune of being born and bred among such malefactors.

This wide definition could not be of practical benefit, because bias, confirmed habit, hereditary wickedness, oddity and peculiarities may be normal and the natural out-crop of successive voluntary acts by our progenitors or ourselves. In other words, they are not the products of physical or mental disease, and are more or less the inheritance or acquisition of every one. This law of interpretation would include a large number of the insane as responsible beings. There are times in the lives of many lunatics when they not only know right from wrong (the distinctive Shibboleth of so many judges to the present day), but also when they can refrain from wrong-doing, for fear of punishment, as rational beings do in every day life. They can curb the insane impulse by volitions which are within their control. Should they be exempt from penal consequences? The asylums are full of inmates, who for weeks together, are—as far as human knowledge goes—comparatively sane. Their insanity is periodic. In the intermissions of sanity such have full control over all their acts, and are cognizant of their relationship to society. The equilibrium of the mind at such times, as far as we can judge, is maintained, and such are quite capable to transact business, to bear injuries, with equanimity, and forbear from any overt acts as any perfectly sane citizen. If at such times, and during such intermissions the individual

commits a felony, should he be held responsible and punished for his crime? I am well aware that objection may be raised that during these so-called "lucid intervals" the mind does not fully recover its normal tonicity. This may be true to some extent in many cases, but if the mind have not all the strength of a totally sane man, in vigorous mental health, it has sufficiently recovered, at these times, to perform all its necessary work in the same manner and within the same control as the great majority of mankind. It is proposed to medical men, in view of these difficulties, to confine the definition of insanity to mean brain disease. In this way the question of responsibility would still remain with the Court. If by disease is meant organic lesion, then would the definition be too limited: for functional derangement will dethrone reason for a time. This is seen in the inhalation of anæsthetics, in drunkenness, in the wild delirium of fever, and in the effects of many other toxic agents. The brain may become affected functionally, because of excitement in one or more distant organs of the body. This is seen in the kleptomania of women at certain menstrual periods. The woman who revels in wealth will become a thief at such times, who would revolt at the thought when the frenzy passes away. It is the love of stealing, not the pleasure of possession alone, that prompts the act. We see the same eccentric causes in puerperal mania, at the climacteric of female life, hysterical mania, nymphomania, and such like, which may in their initiatory invasion be excitants and the cause of permanent lesion of the brain in the long run, but none can say that the mischief has not begun outside of the brain. Disease of the brain will cover the large majority of the insane. Disease of the body, outside the brain, will show an efficient cause in many. The two combined make a good majority in our asylums, but to say that lesion of the brain only is a complete definition of insanity would not be in accordance with experience. *Post mortems* often show extensive adhesions inside the skull, and serious invasion of disease in the substance of the brains of those who have died of other bodily diseases, but sane to the last. Also many an insane person dies and leaves no evidence of mischief in the head.

The exciting cause may affect the encephalon from without, or it may be beyond the research of the pathologist, and cannot be a basis to support the definition above given. Even if this definition were correct, it would be impossible to state when it existed except by mental and physical manifestations; then why not accept a formula like that of the German Penal Code, viz.: "An act is not punishable when the person at the time of doing it was in a state of unconsciousness, or disease of mind, by which a free determination of the will was excluded." This does not reject the idea of bodily disease, but it takes the outward manifestation as an indicator of the mischief within, just as the hands of a watch point out the condition of the machinery within. It is a question of *will not* and *can not*—of voluntary or involuntary action—or, in other words, had the accused in any particular act sufficient mental strength to control his actions at any time he wished, or was he led blindly and irresistibly, from any cause, to conduct unnatural and unusual for him to do? Properly speaking none are absolutely free. Inherited predisposition, educated bias, confirmed habit, hobby-riding, well-fed ambition, and such like, are manacles to impede volition. The free will of a sane man must always be considered in a modified sense, for the ball and chain are hanging at our limbs, as we are paying the penalty for the transgressions of ourselves and ancestors.

The medical witness is to remember, however, that it is not his province to give a general definition of insanity. He is often entrapped into an attempt to do this, in order to give a council an opportunity to hold him and his opinions up to ridicule. He is asked in derision, "What is insanity?" but he can retort by demanding the catechist to define one of the terms

his own question. The discussion of insanity in the abstract must be left to essays and textbooks. Only facts and legitimate opinions, deduced from them, are asked for to enable the Court to decide for itself whether they are such as to warrant the plea of insanity on behalf of the person under consideration. The witness is to guard against being led into defining the insanity of any one, as being a want of power to distinguish *right* from *wrong*. True, many in-

sane people have not that discrimination, but, on the other hand, a large percentage of lunatics have that power as fully as the sound in mind. No jurist, who has the slightest experience of insanity, now holds that view, because it flies in the face of accepted facts. An illustrious race of English judges, for centuries past, and down to this hour, pronounce verdicts based on this inadequate judgment. On examining recent charges to the juries of Canada, I see indications of changes of opinion, in this respect, among our judges, which are more in keeping with the truths of modern investigation.

In the Toronto Asylum there is an estimable lady who is afflicted with religious melancholy. She has made several attempts at suicide. She never loses her sense of "the wickedness of the attempt," as she calls it, but the uncontrollable impulse is too strong for her. On one occasion recently she felt a strong desire coming on, and begged to have the leather muff put on her hands, lest she might be forced otherwise to accomplish her design. The courts would hold her to be an accountable being, because the sense of right and wrong had not been extinguished. A powerful mulatto is in the refractory ward, who is constantly persecuted with spirits. He has, intermittently, a longing to kill somebody. He knows it is wrong to even think so, and at these times he asks the supervisor to lock him in his room. According to the interpretations of law, should he commit homicide, he ought to be hanged. In another ward is a patient who was at one time a prominent writer for the press. He is afflicted with chronic mania of the most pronounced kind. On a recent occasion he told me that he "felt like wanting to kill" one of the patients, against whom he had taken a dislike. He said he knew it was wrong to think so, but cunningly added, "You know I am crazy, so they wouldn't hang me." If, unfortunately, such homicide should take place, he should be hanged according to law. Dozens of such cases could be cited in any of our asylums. Dr. Hammond, a reputed expert on insanity, an extensive writer on the subject, at one time Surgeon-general of the United States Army, and now associate editor of *The Journal of Nervous and Mental Disease*, said recently in a

discussion which took place on this subject, at a meeting of the "Medico-legal Society of New York," "that he is in favour of punishing insane people just as he would a tiger who went about destroying people. If a Lunatic had a homicidal mania he would hang him."* He would not only hang *any* and *all* insane people who killed any one, but he would hang them if they had a mania to kill, even were the deed not performed. This would be an effectual way to make vacancies in our asylums, and would remove perplexing problems from courts of law to the scaffold and the grave. I am sure such a brutal idea will never prevail where humanity exists. One of the theories of the transmigration of souls was that some one died when each mortal was born, and the soul of the dead was immediately translated to the new-born child. I am afraid no one died when Dr. Hammond was born. I take this charitable view of the author of such a horrible proposal.

There is reason for caution in a witness when he is asked to acknowledge that peculiarities of mind may mean insanity and irresponsibility. A man may do a great many strange things and still have perfect soundness of mind. There is no common standard to measure mentality with analogous to the yard stick and bushel in the British Museum. Each man must be gauged by himself, in his antecedent conduct and individuality, for among all the sons and daughters of Adam, no two are alike in body and mind. No man can be justly tried by a code of laws which indulges in vague generalities, on the one hand, or which vaunts an absurd minute classification on the other. What may seem odd in a naturally quiet and reticent man may be the usual conduct of him who is "boiling over" with exuberance of spirits. The temperament, peculiarity, bias, habit and mode of thought, of each person must be considered in relation to each history. To expect a uniformity in humanity, and judge that one man must act like any and every other man, is the greatest absurdity. This want of sameness must forever bar the way to finding a general definition of insanity. The conditions are too multifarious

for us ever to prove mental *status* with formulæ as definite as those of Euclid.

A witness should not allow himself to be led into a trap by having proposed to him one symptom at a time, and then be asked if each of those indicate insanity. Each symptom might not be characteristic in itself, when the aggregate might be conclusive. When details are asked for the witness must guard himself by insisting on their accumulated weight, to enable him to form an opinion. This may not be necessary in acute cases, when the patient's actions speak louder than words, but the sum total of symptoms is of great importance when the indications are obscure. Many times it is impossible to express, in words, the gait, mode of expression, look, and general demeanour of an insane person, so as to impress a court with their forcible significancy. Take an example of one of many found in any asylum. A person was once tidy in his habits; is now slovenly. He had a firm step; he has now a shuffling gait. He never decorated his person; he now makes a ring of some material for his finger, or ties it in his button-hole. He was not a keen observer of small things; he now notices and picks up pins, nails, straws, bits of glass, or any other small object that may come in his way, placing them in some corner, in his pocket, or in any other part of his clothing. He may have had distinct utterance; but he has lost that clear enunciation of words and mumbles them out. He was inquisitive at one time as to what was going on around him; he may now listen to a recital of stirring events and take a momentary interest in them; but it is of short duration. He was active and industrious; but he is now lazy. This recital might be extended indefinitely, but in short, there is a perversion of the patient's whole character. The medical witness sees a case of dementia, yet, each of the symptoms taken *seriatim* would have no significance, being without salient points, to an unobservant jury, and even the combined catalogue would have little force or weight in many courts of law. There may be no delusion apparent; there may be a sense of right and wrong. Sharp questionings may elicit correct and intelligent answers, but a number of changes of character, such as I have enumerated,

* *The Journal of Mental and Nervous Diseases*, July 1873, p. 556, et seq.

pronounce an unsound mind; or rather a physical disease has instrumentally impeded the healthful exercise of mental vigour. The ancient aphorism holds true amid all the fluctuations of mental philosophy, *i.e.*, "a sane mind in a sane body." The appearances of disease may be faint when taken in detail, but to a practical eye, and to a matured judgment, accustomed to study the faintest outcrop of mental aberrations, those peculiarities tell a tale which may have no weight with the unskilled in the protean forms of insanity.

It is sometimes insisted upon that a categorical answer may be given to every question put to a witness. It may be impossible truthfully to do this, because of the form in which the interrogation is put. The examiner is well aware of this fact, hence the bait cunningly thrown out to catch the unwary. For example, were it asked about a patient, "Did he then refrain from speaking nonsense?" Were the answer "yes," it would imply that he had been speaking it, but had ceased to do so. Were the answer "no," it would mean that he had spoken nonsense, and continued to speak in the same strain up to the time under discussion. Neither answer might be true, for if the patient had not spoken at all, as indicated, the fallacy lay in an assumption which had no existence. It would be begging the whole question, and neither a positive nor a negative answer could cover the ground. This is only one specimen of a legion of such questions which often perplex beginners, and are expounded with that object in view, and a negative or positive answer demanded with legal pertinacity. When such traps are set and baited with sagacious design, a state of "masterly inactivity" is best, until the questioner goes back to legitimate interrogation. A medical witness should never quote authorities, nor should he be entrapped into endorsing or refuting such, if they should be presented by counsel for his consideration. No published books on medical subjects are competent witnesses in court; nor is a witness compelled to give an opinion about the views the authors may advance. The writers themselves are the only legitimate persons who can testify to their theories and beliefs. I have often seen witnesses caught in this way, even

before the opposing council could put a veto on the irregularity. "Do you agree with Maudsley in his view on this point?" "How does it happen that Bucknill and you differ in this respect?" "Can you give me Tuke's opinions on the subject under discussion?" "In Ray's Jurisprudence such and such theories are advanced, what do you think about them?" "You have read Taylor, will you state what he says about insanity in respect to competent wills, or suicide, or homicidal mania?" These are specimen interrogations which may be put, but need not be answered. A refusal to do so will be sustained by the Court. If a witness begins to air his medical lore by quoting authors, he may be able to show his possession of good memory, but he will not contribute any facts of which he is cognizant, through giving lectures on the opinion of others.

The most difficult position a medical man can be put in is when called to give evidence in cases of contested wills. The capacity of a testator to make a will, and the soundness of mind requisite to make a valid one, are often questions of great difficulty. It should be held generally as essential that the testator should have sufficient mental capacity to comprehend perfectly the condition of his property, his relation to the persons who were or might have been the objects of his bounty, the scope and bearings of the provisions of his will, and a memory of an activity sufficient to collect in his mind, without prompting, the particulars or elements of the business to be transacted, and to retain them in his mind for a period sufficient to perceive at least their obvious relations to each other, and to be able to form some rational judgment with relation to them. (*Vide* Rokenbaugh on Testamentary Capacity, *Journal of Nervous and Mental Disease*, July, 1878.) This test will cover all the ground. It does not assert incapacity to eccentric testators, nor those who may be labouring under delusions of facts. Esquirol says: The brain may be affected, but it does not necessarily mean an impairment of the understanding. On the other hand, it was strongly asserted by Lord Brougham, and is now by a certain class of thinkers, that *any* insane delusion entirely destroys the mental capacity of a testator to

make a competent will. Lord Brougham tells us that when travelling in the north of Europe he at one time was taking a bath at his hotel. As he came out of it he saw a friend in the room who at that time had died in India. He says he became insensible immediately afterwards. This apparition was doubtless the premonition of a fit. His lordship would not have agreed to have the rule of incapacity applied to himself on account of this hallucination. Lincoln had many delusions, so say his biographers. Sir Walter Scott was not exempt from them when he was in the zenith of intellectual vigour. Dr. Johnson heard his mother calling out "Samuel." Lord Castlereagh, the brilliant but corrupt statesman, often saw a beautiful child in his chimney-corner. Goethe also positively asserts "that on one occasion he saw distinctly his own double"—or himself outside of himself. General Rapp tells us that Bonaparte saw a star of great brilliancy above his head. Napoleon said: "It has never abandoned me; I see it on all great occasions; it orders me to go forward; and it is a constant sign of good fortune. Malebranche, Des Cartes, Luther, Wesley, Knox, Pascal, Loyola, and many of the most remarkable men of the past ages were the victims of all kinds of delusions and illusions. Yet, these children of genius could not be properly called lunatics, even if genius be said to be nearly allied to madness. There is no doubt, in my own mind, that all such deceptions of the intellect or senses often exist without mental aberration being present of sufficient intensity to invalidate a will.

"At the same time in the consideration of every case imbecility, delusions, monomania, or hallucinations, intoxication, lucid intervals, undue influence or fraud, and presumptions arising from the character of the act itself, the age of the testator, and such bodily infirmities as deafness, dumbness or blindness," must be well weighed in considering testamentary capacity. Eccentricity is said to be the lowest form of insanity. It is seldom however, that a will is invalid because of its existence in the testator. In 1861, a wealthy Portuguese died in Paris. He left a will with seventy-one codicils. One of which read, "I leave for the Athenæum of

Paris 10,000 francs, and the half of the interest shall be paid to a professor of natural history, who shall lecture on the colours and patterns of dresses and on the characters of animals." Another was, "My funeral shall take place at 3 p.m., the hour at which rooks of the Louvre come home to dinner." The will was held to be valid, the Court saying "that these peculiarities were but the absurdities of a vain man." The peculiarities of the eccentric are as varied as are the phases of the mind, and it has been well said by Redford, in his "Treatise on Wills," that "The *eccentric* man is aware of his peculiarity and persists in his course from choice and in defiance of popular sentiment; while the *monomaniac* verily believes he is acting in conformity to the most wise and judicious counsels; and often seems to have lost all control over his voluntary powers, and to be a dupe and victim of some demon like that of Socrates."

Without entering into details, which would need a volume to elucidate fully, it is well in every case to consider whether the aberrations are such as would warrant us to sign a certificate of insanity to commit to an asylum for treatment and safe-keeping. If we do not consider such to be safe at large, they are not responsible beings. We should examine as to delusions and ascertain if they are sufficiently strong to warp the judgment and seriously affect the conduct of the individual; or, if they are of such an insulated nature as not to interfere to an appreciable extent with volition, and are not joined with morbid emotions and sentiments. It is also important to observe if the moral feelings and passions are perverted, if measured by a common standard, or better still by the patient's former temper and character, and if these are sufficiently morbid as to affect the power of self-control. The impulsive form of insanity is to be examined with great care, for under its guise real culprits take shelter to avoid just penal consequences. The strongest evidence of its existence should be made manifest to a medical witness before he testifies to the presence of mental disease in such cases. If these cardinal points are kept in view, an aid to intelligent testimony will be the result.

THE ANTISEPTIC TUBE IN INTRA-ABDOMINAL SURGERY.

BY A. GROVES, M.D., FERGUS, ONT.

In this article I propose to show why the tube sometimes inserted into the abdominal wound after intra-abdominal operations should be called the antiseptic tube, and not the drainage tube, as it is usually named. It may be said that there is little in a name, and that "the rose by any other name would smell as sweet." Well, so the rose would, but if any one were to say that some substance—*assafœtida*, for instance—had an odour like the rose, and that he were to say this to one who knew nothing of *assafœtida*, he would create a totally wrong impression: and first impressions are hard to change, unless their incorrectness is glaringly apparent.

Now, when we speak of drainage, either by street sewers of brick or abdominal sewers of rubber tubing, we ought, from the ordinary signification of the word, to mean that the process of drainage in both cases is similar; that is, that the offending fluids, in the one case, from the town, in the other, from the abdominal cavity, were got rid of by flowing down an incline, by reason of the tendency of fluids to find their level. But, in reality, the term drainage tube means nothing of the kind, or, if it does, it sadly belies its meaning, and the surgeon who places a tube in the abdomen, fondly believing that he has provided against the danger of septic poisoning, will be as much deceived as he who is told that the odour of *assafœtida* resembles that of the rose. I maintain that it would be much better never to use a tube at all than to use one if it is supposed that it will, of itself, carry off septic matter, for this it certainly will not do, while it may be the means of allowing septic poison to travel into the abdomen. Let any one place one end of a piece of rubber tubing, such as is commonly used as a drainage tube, in a pail containing water, and leave the other end on the floor; now, if we have a real drain or sewer, the pail will be emptied in a short time, but, as hour after hour passes, the water in the pail gets no lower, simply because it cannot of itself run uphill. If, then, a thin fluid like water

cannot run up through the tube, how can we expect a much thicker fluid to run up out of the abdomen, for it must run upward before it can escape. It might, probably, be answered that it was on the siphon principle; but, then, a siphon will not start of itself, it must first be filled; and, undoubtedly, if the tube placed in the pail were first filled, it would soon empty the pail, or would keep running so long as the end in the pail was kept covered with fluid, but let this end be once uncovered, and it would at once stop, and would not start again.

Precisely the same thing happens in the so-called abdominal drainage tube; it will never begin running unless it is first filled, and it will cease as soon as the abdominal cavity is emptied, so that if there was a collection of fluid in the abdomen so great as to cause ascent in the tube by pressure from within, all the fluid then in the cavity might escape, but what collected after would remain. Now, it might be said that this is only theory, and that in practice the tube works very well, but it was because I found it useless in practice (as a drainage tube) that I became thoroughly awakened to the fact that what is ordinarily called a drainage tube does not in reality act in the way one would suppose from the name.

To show that members of the profession are led astray by a name, I may mention that I have seen reports of cases of intra-abdominal operations carefully performed with all antiseptic precautions, including a rubber drainage tube left in the abdominal wound. By-and-bye, symptoms of septic poisoning set in, and the patient died, in spite of antiseptic surgery and drainage, and the *post mortem* revealed a quantity of septic fluid in the peritoneal cavity. This is not theory, but a stern and fatal fact, which should rouse every surgeon who undertakes such operations to ask himself if death in such a case is unavoidable.

The answer, in the majority of cases, may be that the septic poisoning of the blood can be controlled and the patient saved. Virchow shows that blood will not retain septic matter, but will become pure, if there is not a septic depot pouring in poison continually.

I now come to the proper use of the antiseptic tube—a use long since pointed out by

Peaslee—which is, that as soon as symptoms of septicæmia begin, a weak antiseptic fluid should be injected into the abdominal cavity, and then allowed to flow out, and that this process should be repeated until the fluid flows out clear. The septic symptoms will almost immediately disappear, only to return within a few hours, when the antiseptic washing must be repeated. This must be repeated as often, and continued as long, as symptoms of septicæmia become developed. I think that by this means septicæmia ought, in almost every case, to be controlled; at any rate, it ought to be recognised that a collection of putrid fluid found in the peritoneal cavity, on making a *post mortem* examination after ovarian, or other intra-abdominal operations, shows either misconception, on the part of the surgeon, of the nature of septicæmia, or that he has been led away by a false name, and thinks that a piece of rubber tubing, thrust down into the abdomen, is the very utmost the modern practitioner can do to ward off the terrible dangers of septicæmia, when it develops in spite of antiseptic precautions.

It may be contended that the name (drainage tube) does not prohibit its being used for antiseptic injections. Of course, this is true, but I am quite certain that the name has led many astray, and that lives have been lost, because the name conveys the idea of drainage, when it should convey the idea of washing out septic matter and destroying its poisonous effect.

I am afraid this article has become too long, but my excuse must be the intensity of my conviction that patients have been lost on account of a misapprehension of the proper use of the misnamed drainage tube, and that by substituting a name which would at once draw attention to what is the only use of the tube, namely, to inject antiseptics and draw off septic matter, a great advance in the right direction would be made.

In conclusion, I might say that it is my firm conviction that the proper use of the antiseptic tube, after ovarian and kindred operations, is of greater importance than the performance of such operations under the antiseptic spray, at least, in the hands of the ordinary practitioner.

Book Notices.

The Local Treatment of Eczema. By HENRY G. PIFFARD, M.D., New York.

On a New Modification of the Anterior Splint. By ROSWELL PARK, A.M., M.D., Chicago.

Clinical Lectures on Surgery. Delivered at Starling Medical College by J. H. POOLEY, M.D., Columbus, Ohio.

The American Bookseller for Christmas, 1878. American News Co., New York. Vol. VI. No. 10.

Ninety-sixth Annual Catalogue of the Medical School (Boston) of Harvard University, 1878-79. Cambridge, U.S., 1878.

Fourth Annual Report of the Officers and Superintendent of the Asylum at Walnut Hill, Hartford, Conn., 1878.

Les Tumeurs Adénoïdes du Pharynx Nasal—Leur Influence sur l'Audition, La Respiration, et la Phonation—Leur Traitement par le Dr. B. LÖWENBERG. Paris, 1879.

The Duties of the Medical Profession concerning Prostitution and its Allied Vices. By FREDERICK HENRY GERRISH, M.D. Portland: Loring, Short & Harmon. 1878.

Ecole de Médecine et de Chirurgie de Montreal, Faculté de Médecine de L'Université du Collège Victoria à Montreal.—Discours prononcé à la Réouverture des Cours par T. E. D'ODET D'ORSONNENS, M.D.

Science and Practice of Surgery. By FREDERICK JAMES GANT, F. R. C. S. London: Baillière, Tindall & Cox; Philadelphia: Lindsay & Blakiston; Toronto: Willing & Williamson.

The first edition of this work was not so generally known to the profession in this

country as it should have been; we therefore hope that the second edition, which is now before us, will receive the attention it deserves.

The old work has been so thoroughly revised, and so much has been added to it, that the author is quite justified in saying that "the present edition may be regarded as a new work." It is neatly printed in two volumes, and contains 1,787 pages and 969 woodcuts.

After a general introduction, he divides the work into—I. General Pathology and Surgery, comprising Diseases of Nutrition, of the Blood, and of the Nervous System; II. Special Pathology and Surgery, comprising Diseases affecting Textures, Organs, and Regions. The general arrangement is good, and in working out the details, he gives his own opinions and the results of his experience with an unusual absence of egotism, and, at the same time, gives clearly and concisely the views of the ablest surgeons and pathologists of the present day.

The following chapters on special subjects have been written by surgeons recognized as authorities in those departments:—"Injuries and Diseases of the Eye," by Mr. Power, Sen. Ophthalmic Surgeon to St. Bartholomew's Hospital; "Ear," by Mr. Purves; "Diseases of the Throat and Larynx," by Dr. Morell Mackenzie; "Deformities," by Mr. Wm. Adams; "Diseases of the Skin," by Professor Erasmus Wilson; "Diseases of the Female Genital Organs," by Dr. Robert Barnes; "The Sphygmograph," by Dr. Mahomed. These names are a sufficient guarantee of the value of the articles. The chapter on the sphygmograph deserves special mention. It explains fully the action of the instrument and its importance in indicating the various characters of the pulse under different conditions.

In his introduction, he discusses modern surgery as a science and a scientific art, and attaches great importance to the study of pathology, combined with that of anatomy, as a guidance in surgical operations, giving as one of his examples a case of aneurism of the axillary artery requiring a ligature of the third portion of the subclavian, and showing, on the one hand, the ease with which it may be done, in the dead subject when no abnormal condition

exists, and, on the other hand, the difficulties which the surgeon must encounter in a living subject, when the disease has caused elevation of the shoulder, turgid veins, swollen muscles, etc.

In his classification of tumours, he recognises two primary divisions—the localized, or non-infiltrating, and the infiltrating, which includes all varieties of cancers. Under sarcoma (one of the localized growths), he includes fibro-cellular, fibrous, cartilaginous, gliomata, myxomata, and granulation tumours. We think that, when used in this sense, the term becomes so indefinite as to be practically useless. The more common plan of considering sarcomata as tumours composed of embryonic connective tissue, while it is founded on an anatomical basis, at the same time possesses more clinical value.

We were much pleased with his chapter on fractures, in which he draws largely from American surgeons, especially Hamilton and Sayre. As a general thing, his directions for treatment are practical and complete. There is one exception, however, where the treatment of the three varieties of fracture at the upper end of the humerus—intra-capsular, extra-capsular, and fracture of the great tuberosity—is disposed of rather vaguely in five lines.

In discussing diseases of joints, he is strongly opposed to the opinion of Dr. Sayre, that the "so-called" scrofulous disease of joints is not generally of constitutional origin. We quite agree with Mr. Gant, and think it of paramount importance in these cases to improve the condition of the system by constitutional remedies. We are certain that Dr. Sayre does not overlook these; but our fear is that some of his enthusiastic disciples, while attempting to rival the wonderful ingenuity of their master in the adaptation of mechanical appliances, may allow their patients to die through the neglect of the proper constitutional treatment.

We notice a good feature in the chapter on hernia. It contains a full description of all the ordinary trusses used in treatment, with a discussion of their comparative merits under different circumstances, and the proper way to take the necessary measurements for them.

The practical anatomy of various important

parts is given in different portions of the work. We would especially call attention to the surgical anatomy of the genito-urinary organs at the commencement of the excellent chapter on that subject.

In concluding this hurried review of Mr. Gant's *Surgery*, we take much pleasure in referring to the excellence of a large number of woodcuts. The greater portion are entirely new, and are, to a large extent, taken from the pathological specimens in the various London museums. Among so many, it is hard to particularize, but we will mention a few:—One showing destruction of the grey substance of the cord in tetanus, as demonstrated by Lockhart Clarke; several in the chapter on fractures, showing the various situations and lines of fracture in different bones; representations of aneurisms; Francis Mason's drawings of cleft palate and the different steps of Sir Wm. Fergusson's operation for that deformity; application of Sayre's plaster of paris jacket for angular curvature of the spine; specimens of numerous forms of hernia; varieties of trusses and their application; stricture of the rectum; fistula in ano; strictures of the urethra, showing in some cases abnormal conditions of the bladder.

We cheerfully recommend this valuable work to our readers, and hope they will derive the same pleasure and profit that we have from its perusal.

Practical Surgery, including Surgical Dressings, Bandages, Ligations, and Amputations. By J. EWING MEARS, M.D., etc. Philadelphia: Lindsay & Blakiston.

The author does not claim any great originality in his work—it is only a compilation from the various modern authors, arranged for the use of students. And to the student who is endeavouring to gain manual dexterity by operating on the cadaver, this work would be an exceedingly useful guide, containing as it does, in a short concise form, all the principal ligations and amputations. As a guide to a surgeon in ordinary practice, the work does not go far enough. The subject matter is well and methodically arranged, each part being headed by a definition, then a general description of the appliances and instruments, and the parts on which they are to be applied. The work is made up in a handy volume, with remarkably good paper and clear type, and numerous illustrations.

Miscellaneous.

CANADIANS IN ENGLAND.—W. E. Winskell, M.B., of Kelvin, Ontario, has been admitted member of the Royal College of Surgeons England.

CANADA MEDICAL ASSOCIATION.—The Publication Committee have decided not to publish the transactions this year. That not more than one hundred names of subscribers have been sent in is certainly not an evidence of a lively interest in the welfare of the Canada Medical Association.

A NEW TINEA.—Dr. Siegfried writes to the *Philadelphia Medical Times* from Amoy, China:—A new variety of tinea is also being distinguished by Dr. Manson. It differs from tinea circinata in every particular, clinically and pathologically. The case is from the Straits Settlement, and has been known as a ringworm, the local name given it where it occurs, Burmese ringworm, etc. It affects the skin, and produces a condition similar to watered silk, one ring within another, and no part healing as the growth progresses. The epidermis is raised up in flakes, rises, and is detached in larger patches than in tinea circinata. Microscopically, the difference consists in there being few spores, much large-sized and long-pointed mycelium. The whole body becomes gradually affected, no part healing as in circinata. Dr. Tilbury Fox of London is to be written to in regard to it, and will present the case and notes for Dr. Manson.

THE BATTLE OF THE LIGATURES.—Mr. C. G. Wheelhouse said, in the address in surgery, before the British Medical Association, on this subject,—During the last few years, I have been watching carefully and curiously the efforts that have been made to adapt the material of which ligatures are made, and to harmonize their necessary presence in wounds with the requirements of antiseptic surgery. First, I have noted that various materials, elastic threads, catgut, horsehair, jute fibre, and silk of different kinds, all carbolized, of course, have, one after another, been employed. Secondly, the methods of their application have

been almost as varied as the material of their structure; some surgeons have inclined simply to close the arteries without wounding their coats; and some, as of old, to cut into these. One will cut off one end only of the ligature, while another will take away both and leave the knot to be dealt with by absorption. The conclusion at which I have arrived is that, as regards the whole subject, we are, for the moment, off the track, and are erring from true principles. I hold that the laws laid down by Jones as long ago as 1805, and afterward affirmed and substantiated by the late Mr. Hodgson, based as they were upon the safe ground of exhaustive experimental research, are as true now as they were when first promulgated, viz., that the only safe way of securing an artery is fairly to divide the inner and middle coats of the vessels, and that the only ligature to be trusted to do this efficiently is a well made firmly twisted round cord of silk; that elastic threads, after dividing the coats, if they do so at all, lose their elasticity, yield when they should hold on firmly, and thus permit the efflux of blood; that catgut softens too readily, bursts or slips, and is thus unsafe; that silk ligatures, when cut off at both ends, fail to become absorbed, and become prolific sources of after mischief; and that horsehair fails not only to be absorbed, but acts as a source of direct irritation from first to last. With both these two last, when cut short, I have seen wounds heal perfectly, and all seem well; but later on small abscesses have formed in various parts of their track, and from each of these, when they have given way, I have had to remove the unabsorbed knots and minute circlets of ligature before they have finally become firm and sound.

ELASTIC CRAYON OF NITRATE OF SILVER.—

Dr. Pajot takes a laminaria-tent, two millimetres ($\frac{1}{12}$ in.) in thickness, dips it in some thick mucilage, and rolls it in finely powdered lunar caustic. When it dries, he has a crayon, of the usual thickness of a stick of nitrate of silver, which can be introduced into the cavity of the uterus without fear of breakage. In the same manner applications can be made to other cavities, and if necessary, with stronger remedies.—*Allg. Med. Cent. Zeit.*

The Medical Board of the Manchester Infirmary have recently decided to admit students to their weekly consultations, a the custom adopted at St. Bartholomew. The first open consultation was held in the theatre last Thursday, when several of senior students availed themselves of opportunity thus afforded of hearing the discussed by the different members of honorary staff. The case is first commented upon by the surgeon or assistant surgeon introducing it; then questions are by any member of the staff, and afterward the patient having left the room, the opinion the members present are taken, beginning the junior, and passing to the senior surgeon.

BEWARE OF HURRY.—The maxim of safety to avoid physical hurry and mental hurry alike—is, prepare, deliberate; in a word, adopt an orderly method. The man with a weak heart who endangers his life by hurrying to catch a train, unless under altogether exceptional circumstances, is probably the victim of a defect in early training, which leaves him the mercy of impulse without order; or he is striving to fill a place in life for which chief qualification has been the faculty of accomplishing by effort more than can be achieved naturally by steady labour. No persons are ever hurrying after their engagements; others are goaded onward by pressure behind them; but however "hurry" is produced, it is full of peril to the peace of mind and health of body, and it ends by exhaustion, if not premature accident, it kills.—*London Lancet.*

Births, Marriages, and Deaths

BIRTHS.

In Montreal, on the 17th December, the wife of Dr. J. B. McConnell of a son.

In Barrie, on the 18th December, the wife of Oliver of a son.

At Galt, on the 22nd November, the wife of Sylvester of a daughter.

At 144 Duke Street, Toronto, on the 30th November, the wife of I. H. Cameron, M.B., of a son.

At Hawksville, on the 12th December, the wife of Dr. T. W. Vardon of a daughter.

DEATHS.

In Montreal, on the 18th December, Dr. J. Desloges, of Pembroke, Ont., aged 31 years.

At Kincardine, on the 4th December, Marybeth Matthie, wife of De Witt H. Martyn, in the 30th year of her age.

UNIVERSITY OF TORONTO

The time for acceptance of the **CERTIFICATES OF MATRICULATION** before the College of Physicians and Surgeons of Ontario been extended to MARCH 1st, 1879, after which date such certificates will not be accepted in lieu of Matriculation in this University.
W. G. FALCONBRIDGE, M.A., Registrar.