

Technical and Bibliographic Notes / Notes techniques et bibliographiques

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

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

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

Continuous pagination.

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

THE
BRITISH AMERICAN JOURNAL

OF
MEDICAL & PHYSICAL SCIENCE.

EDITED BY

ARCHIBALD HALL, M.D., L.R.C.S.E.,

Lecturer on Chemistry, University of McGill College; Member of the Medical Board of Examiners for the District of Montreal; one of the Physicians to the Montreal General Hospital; one of the Consulting Physicians to the University Lying-in-Hospital, &c.

VOL. IV.]

OCTOBER, 1848.

[No. 6.

CONTENTS.

PART I.—ORIGINAL COMMUNICATIONS.

I.—MEDICAL DEPARTMENT.

- ART. XLII.—Observations on the Climate of Barbadoes, and its influence on Disease, together with remarks on Angioleucitis, or Barbadoes Leg. By James Bovell, Esq., M. D., Toronto..... 141
- ART. XLIII.—On Fatal Doses of Prussic Acid. By W. Wright, Esq., M. D..... 145
- ART. XLIV.—Cases of Gunshot Wounds, occurring in the month of June in Paris. By George D. Gibb, Esq., M.D..... 150
- ART. XLV.—Phrenological Sketch of the Character of Dr. Wm. Dunlop, late Member of Parliament for the county of Huron. By Dr. G. Russell, Montreal..... 153
- ART. XLVI.—The Duties and Responsibilities of Physicians to Insane Asylums. By A. Von Iffland, M. D..... 154

PART II.—REVIEW DEPARTMENT.

- ART. XLVII.—Tracts on Generation. By T. L. G. Bischoff, Giessen. Translated from the German by C. R. Gilman, M. D., New York; and Theodore Telkamp, M. D., Columbia College..... 157
- ART. XLVIII.—Description of an Apparatus for the Automatic Enregistrement of Magnetometers and other Meteorological Instruments by Photography. By Charles Brooke, M.B., F.R.S., F.R.C.S.E..... 159

PART III.—PERISCOPE.

I.—PRACTICE OF MEDICINE AND PATHOLOGY.

- On the Internal use of Turpentine Oil in Cases of Hæmorrhage..... 159
- On the Hygienic Influence of Cutting the Hair..... 160

II.—SURGERY.

- On Choroiditis or Inflammation of the Choroid Membrane of the Eye..... "
- On the use of Chloroform in Surgery..... 162
- New mode of Treating Deafness arising from destruction of the Membrana Tympani..... 164

III.—MIDWIFERY.

- Rupture of the Unimpregnated uterus..... "
- Medicated Pessaries..... "
- Occlusion of the Vagina..... "
- Vaginal Hysterotomy..... "

IV.—MISCELLANEOUS.

- General and Medical Intelligence..... 165

PART IV.—EDITORIAL DEPARTMENT.

- Dr. Coderre and the Repeal Association..... 166
- Written Examinations..... "
- Lea and Blanchard's Medical Publications..... "
- Act of Incorporation for Upper Canada..... "
- Books, &c., Received..... 167
- Notices to Correspondents..... "
- Obituary..... "
- Meteorological Register, Montreal, July..... "
- " " Toronto, "..... 168

Communications on Scientific subjects and Books, &c., for review, to be addressed to the Editor: on all other matters connected with the Journal, to the Publisher: in either case, Post-paid—No communications for insertion in the succeeding number will be received after the fifteenth of the month.—From his rule here will be, in future, no departure.

MONTREAL:

PRINTED AND PUBLISHED BY J. C. BECKET 211½ ST. PAUL STREET.

Agents for the United States, Messrs. R. & G. S. Wood, 261 Pearl Street, New York.

MDCCCXLVIII.

THREE DOLLARS PER ANNUM IN ADVANCE.

UNIVERSITY OF M'GILL COLLEGE.

FACULTY OF MEDICINE.

THE ENSUING WINTER COURSE, OF LECTURES, in the Faculty of Medicine, will commence on Monday, November 6th, and will be continued, uninterruptedly, with the exception of the Christmas vacation, till the last week in April, forming a Session of Six Months.

Theory and Practice of Medicine,	by A. F. Holmes, M.D.
Principles and Practice of Surgery,	" G. W. Campbell, M.D.
Chemistry,	" A. Hall, M.D.
Midwifery and Diseases of Women and Children,	" M. McCulloch, M.D.
Anatomy (General and Descriptive),	" O. T. Bruneau, M.D.
Materia Medica and Pharmacy,	" S. C. Sewell, M.D.
Clinical Medicine and Surgery,	" J. Crawford, M.D.
Institutes of Medicine, (Physiology, &c.),	" R. L. Macdonnell, M.D.
Forensic Medicine,	" Wm. Fraser, M.D.
Practical Anatomy,	" W. E. Scott, M.D.
Curator of Museum,	Wm. Wright, M.D.

Montreal General Hospital, visited daily at Noon.
University Lying-in Hospital open to the Students of the Midwifery Class.

In each of the Courses above specified, five lectures per week are given, except in the Courses of Clinical Medicine, and of Medical Jurisprudence, in the former of which two, and in the latter three only, during the week, are given. The Lecturers in the different departments, will illustrate their respective subjects, by the aid of preparations, plates, apparatus, specimens, etc. etc.

The Medical Library, which is furnished not only with books of reference, but the usual elementary works, will be open to matriculated students, without charge, under the necessary regulations. Access to the Museum will be allowed at certain hours. The Demonstrator of Anatomy will be daily in the Dissecting Rooms to oversee and Direct the students.

N. B.—The tickets of this University being recognized by the Universities and Colleges of Great Britain, students who purpose completing their professional education in the mother country, will obtain an important advantage by having attended its Courses.

SUMMER SESSION.

The Summer Courses will commence on the second Monday of May, 1849.

Medical Jurisprudence,	by Dr. Fraser.
Botany,	" Dr. Papineau.
	A. F. HOLMES, MD. & P.
	Secretary Med. Fac.

SCHOOL OF MEDICINE AND SURGERY.

THE LECTURES at this SCHOOL will commence on MONDAY, 6th NOVEMBER, and will be continued till the last day of APRIL, 1849. During the Session, Lectures on the following Departments of a Medical Education will be delivered, viz:

Anatomy,	Dr. Bibaud.	Practice of Medicine,	Dr. Badgley.
Chemistry,	Dr. Sutherland.	Midwifery,	Dr. Arnoldi.
Materia Medica,	Dr. Coderre.	Institutes of Medicine,	Dr. Peltier.
Surgery,	Dr. Monroe.	Medical Jurisprudence,	Dr. Boyer.

The Lectures are given in the French language.
Montreal, September 25, 1848.

Wm. SUTHERLAND, M.D.,
Secretary.

COLLEGE OF PHYSICIANS AND SURGEONS.

THE next MEETING of the BOARD of GOVERNORS of the COLLEGE of PHYSICIANS and SURGEONS of Lower Canada, for the purpose of Examining Candidates for License, as well as for the examination of those about to enter upon the Study of Medicine, will be held, in accordance with the Act of Incorporation, on TUESDAY, the 10th day of OCTOBER next, at 10 o'clock a.m., at the Parliament House, Montreal.

Candidates are required to deposit their Credentials with the Secretary, at least ten days before the Meeting.

By Order,

A. H. DAVID, M. D.
District Secretary.

Montreal, 1st September, 1848.

MEDICO-CHIRURGICAL SOCIETY.

THE next Monthly Meeting of this Society will be held at the Rooms of the Mechanics' Institute, on Saturday Evening, Oct. 7, at 8 o'clock p.m.

HECTOR PELTIER, M.D.,

Montreal, Oct. 2, 1848.

Secretary.

ETHEREAL SOLUTION OF GUN-COTTON.

Prepared and Sold at the Medical Hall, Great St. James Street.

THIS recently discovered preparation which has been used with much success by several Medical Gentlemen in Town, is a most Efficacious Remedy in BURNS, SCALDS, RECENT WOUNDS, &c. &c. The instant it is applied, it forms a coating similar to Gold Beater's Skin; it is more adhesive than the Plaster in common use, and is perfectly clean and harmless.

ALEX. URQUHART.

Montreal, August 10, 1848.

THE
BRITISH AMERICAN JOURNAL
OF
MEDICAL AND PHYSICAL SCIENCE.

Vol. IV.]

MONTREAL, OCTOBER, 1848.

[No. 6.

ART. XLII.—OBSERVATIONS ON THE CLIMATE OF BARBADOES, AND ITS INFLUENCE ON DISEASE: TOGETHER WITH REMARKS ON ANGIOLEUCITIS OR BARBADOES LEG.

By JAMES BOVELL, M.D.,

Member of the Royal College of Physicians, London,—late Junior Physician to the Barbadoes General Hospital,—Junior Physician to the Toronto General Dispensary and Lying-in Charity.

(Continued from page 116.)

The gastric constitution had scarcely established itself, or become pretty generally diffused, when a new character, viz., the inflammatory, appeared upon the stage, and has ever since continued, sometimes combining itself with the gastric, to form diseases of a mixed character, such as erysipelas, and sometimes, when favoured by the seasons, or local circumstances, raising itself to the rank of chief performer. With its appearance, venesection, which had previously fallen into disrepute, became once more a favourite remedy; and, in the course of a few years, was pushed so far, particularly in Great Britain, that Sangrado's maxim, "C'est une erreur de penser que le sang soit nécessaire à la conservation de la vie, ou ne peut trop soigner une maladie," seems to have been the general rule of practice. The same inflammatory constitution became also general in Germany; but there it neither attained such a height, nor required such active treatment as in Great Britain, where many circumstances favoured its more perfect development: with us it more generally yielded to the use of acids, cold applications of mercury, but in England it called for copious blood-letting.

Even in 1810, diseases had become more inflammatory at Tubingen than they had been previously; but the change was still more perceptible in 1813, when the antiphlogistic treatment required the aid of small venesections, and nervous fevers were accompanied both by inflammation and derangement of the digestive organs. Erysipelatous affections were also frequent, and in many cases were of a marked inflammatory character. Erysipelas and true inflammatory, requiring the use of the lancet, were common in Ratisbon in 1811. Garrot exhibited acids, especially the acetous, with great success in the epidemic nervous fever which raged at Dorpat in 1812; and a diarrhœa of a bilious inflammatory nature prevailed at Königsberg during the same year. This important change in the constitution became very evident in the nervous fever at Berlin in 1813, as well as in the formidable epidemic described by Herfeland, which ensued after the war, and raged in the North of Germany during that and the preceding year. Although but a few years before the strongest stimulants had been necessary to obviate the paralysis which supervened were in the beginning of the disease; yet an opposite course was

now required, and antiphlogistic remedies were alone found capable of preventing the vascular excitement from terminating in inflammation of either the head or chest. In short, the inflammatory constitution has been prevalent in Germany ever since the years 1810-11, sometimes in its pure and marked form, and sometimes complicated with gastric and rheumatic symptoms.

This constitution became general at the very same period in Great Britain. Dr. Clutterbuck, of London, had, indeed, ascribed the origin of fever to inflammation of the brain in 1807, and, about the same time, Dr. Steiglezt, of Hanover, had recommended the antiphlogistic treatment of scarlet fever in preference to the stimulating plan then in vogue. But as the inflammatory was then still subordinate to the rheumatic and gastric constitutions, their opinions did not gain many converts. But the inflammatory constitution increased so much in the autumn of 1809, and the winter of 1810, that even Dr. Bateman was obliged to prescribe venesection in fevers, a practice quite at variance with his former views. Erysipelatous inflammation became common in London, Aberdeen, and Leeds, and numerous cases of puerperal fever occurred in the latter towns, which, according to Gordon and Hey, never terminated favourably, except when bleeding and purgatives were employed with freedom.

But it was not until 1813, when the inflammatory constitution had fully developed itself, and the bad consequences arising from violent determination of blood to the head in nervous fevers could not be averted, except by decisive measures, that venesection came into general use in Great Britain, in consequence of the publication, by Dr. Mills, who had prescribed it with much success since 1810. In the same year, that truly estimable physician, Dr. Thompson, published his admirable work on inflammation. Blackhall recommended blood-letting in several species of dropsies, and Armstrong employed the same remedy, combined with large doses of calomel, in the inflammatory puerperal fever, which was prevalent at Sunderland. Venesection became from this time as great a favourite as ever in England, not, however, to the exclusion of purgatives, which were indicated by the derangement of the stomach and bowels that accompanied the inflammatory constitution.

Both these remedies were found extremely beneficial in Ireland in the nervous fever, which was epidemic in Ireland in 1813-14; its inflammatory character being clearly evinced by a hard and full pulse during its first stage and a violent determination of blood to the head, by which the headache and raving are increased; while its gastric type was not less strongly marked by tenderness of the epigastrium, costiveness, or else frequent and unnatural alvine discharges, together with a loaded

tongue, and bilious vomiting. The latter symptoms were, in Dr. Grattan's opinion, of such importance that he gave a decided preference to the purgative plan. The fever, which had previously been confined to Ireland, became generally diffused over Great Britain, after the famine of 1816, and continued, without intermission, for four years. Its inflammatory character being peculiarly favoured both in England and Scotland, *by the habits of the inhabitants*, and the situation of these countries, venesection attained an unexampled degree of celebrity, notwithstanding the representations of the Irish physicians, who used that remedy with more moderation. It was soon believed that there is, literally speaking, no disease whatever in which the lancet ought not to be used, and, as the human mind is ever prone to extremes, it was soon generally believed, in both England and Scotland, to be a well founded pathological inference, "There is but one species of fever, namely, the inflammatory, and, consequently, venesection is the only true anti-febrile remedy. Such is the case in England at present, and it must have been so always, and in every part of the world." I flatter myself that the preceding observations and statements of facts, drawn from authentic sources, sufficiently negative those assertions, and establish the real existence of a change in the constitution of diseases, notwithstanding what Dr. Duncan once said to me, "that such changes existed only in the imagination of the physician."

The whole of these highly important and remarkable truths apply with equal force and strictness to the variable nature or constitution of diseases in the whole group of islands forming the West Indies, and to a neglect of, or to an ignorance of the fact, that such variations do take place, must we ascribe the various and opposite remedies recommended by authors for the cure of the same diseases. Nothing more clearly illustrates this than a reference to, or review of the various methods of treatment recommended for the cure of dysentery as it has appeared at different periods of time. Mosely asserts that "whatever opinions may have been propagated, to be honored with credit they do not deserve. I think it unnecessary to inform practitioners unacquainted with hot climates, that *I never saw a dysentery* during my residence in the West Indies, in which *even the mildest acids were not prejudicial*." Since his time, the charm of the acid treatment has been extolled, and the free exhibition of lemon juice vaunted as a specific in dysentery; at another, lemon juice and salt mixed together, have been highly esteemed. In some epidemics, the disease has been easily and completely controlled by the administration of ipecacuanha, while in others, sulphuric acid, and sea water, and calomel, and turpentine, have each been lauded in their turn; and though last, not least, venesection has been upheld as the remedy superior to all others.

Now, it seems very evident that a disease requiring such a vast variety of methods of cure, could not possibly have had the same constitution, but must, at its several visitations, have had peculiarities rendering it proof against those weapons by which it had been before successfully assailed. It is not, therefore, sur-

prising that so much contention should exist as to the superior value of any given remedy, since practitioners are frequently unmindful of the truths of the doctrine before us. The treatment of yellow fever, a disease pretty frequently epidemic in the West India Islands, as is well known, presents a complexity discouraging and unsatisfactory to the student, unless he is made acquainted with the fact, that the disease, under different periods, has presented the most characteristic differences. We find Mosely, in his work published in 1795, page 43, acknowledging to the fullest extent, that "It is certain diseases undergo changes and revolutions; some continue for a succession of years, and vanish when they have exhausted the temporary but secret cause which produced them. Others have appeared and disappeared as suddenly, and others have their periodical returns." Hughes, in his "Natural History of Barbadoes," in 1750, says that "Dr. Gamble remembers that it (yellow fever) was very fatal here in the year 1691, and that *the same symptoms did not always appear in all patients alike in every year when it visited us*;" and with reference to the evidence afforded by the revelation of pathological anatomy, Mosely observes, "At the termination of yellow fever, the stomach, in some part or other, is generally mortified where the black vomiting has been protracted, and when livid spots have appeared on the body previous to death; for, on inspecting many dead bodies, I have always found some part or other of the stomach, and frequently the superior part of the duodenum, in a gangrenous state, and never without evident marks of injury from inflammation, *let the disease have been ever of so short duration*." These appearances are universally produced by a mortal yellow fever, but from the appearances of the liver and gall bladder, though both must be materially affected, *there is no inference to be drawn that can be depended on*;" and again, dissections have never discovered any certain and uniform in the liver of those who have died of this disease. M. Louis, the profound French philosopher and physician, in his report on the yellow fever of Gibraltar, observes, "That the liver was of greater size than natural in two cases; a little firmer than natural in three cases; a little less firm in three others. Its cohesion was increased in six cases, diminished in seven. *Its colour was altered in every case*; sometimes it was the color of fresh butter; sometimes of a straw yellow colour, a clear coffee-and-milk colour; sometimes a green-yellow; sometimes of an orange." The examinations made by Dr. Evans agree in the main with those of M. Louis, and the cases witnessed by myself discovered the liver mottled precisely like the section of a nutmeg, and wanting in cohesion.

Having thus pointed out the applicability of Professor Autenreith's remarks to the West India Islands, there remains yet one other subject of importance to be noticed, and which has direct reference to the treatment of disease arising or developing itself in new comers. If the customs, manners, and habits of a people stamp them with certain peculiarities, recognisable even in the physical conformation, it is not to be wondered that the morbid actions under which they labour, should also

partake of striking peculiarities; hence typhus fever in Dublin has phases which mark it from the same disease in Paris or London; hence we assume that the treatment of disease arising in a fresh European just coming to the islands, cannot strictly be the same as that pursued towards a long resident or a native; hence we consider it the essential duty of the Physician to inquire into the history and character of the diseases prevalent at the time at which the Immigrant left his home or country.

It would appear, from observation, that a fever contracted by a newly arrived European, immediately on, or soon after his arrival, is not the genuine fever which may prevail amongst the natives and old residents; but the disease is a hybrid, and partakes of a mixed character. A well-marked case of this occurred in the person of a fine young man, a native of Cork, who, in a fortnight after his arrival at Bridgetown, contracted fever, which, for the first night and day, had all the usual characters of the ordinary fever of the island. On the afternoon of the third day, a very marked change took place; the tongue became dry, covered with thick brown coat; the gums encrusted with sordes, and lips parched and shrivelled. On the fifth, the eyes were suffused, and petechiæ appeared on the chest, back, and arms; nausea supervened; bowels moved with much difficulty, notwithstanding the use of enemata and medicine. As he lay on his back, in this condition, we were much struck with the whole aspect of the case, and its striking resemblance to cases of true typhus, as witnessed in Dublin. Before his death, on the eve of the sixth day, this young gentleman had fourteen black vomits. We have since witnessed other cases equally impressive. The practice of the army surgeons in the epidemic of 1836-37, differed from that pursued by the civil practitioners. At the garrison, the plan recommended by Dr. Stevens was pretty generally adopted, while the old and esteemed president of the Board of Health, Doctor Butcher, confided almost solely in the *Lancet*. That both methods of treatment were correct of themselves, or, as related to the two distinct classes, I can readily believe, and feel fully satisfied that the treatment to be pursued towards Europeans, must be a modification of that adopted towards old settlers. The learned Annesley, in his great work on the Diseases of India, makes a wide distinction in his treatment of diseases arising in the natives, and in Europeans.

Dr. Bancroft ascribes the agues of spring to the previous autumn, and, for this reason—"that he has seen persons seized with ague after they have returned to England from a warmer climate, where they had been exposed to miasmata; and that they had experienced the disease at too early a period in the year for it to have arisen from malaria at home." Dr. Elliotson fully agrees in this opinion, and my good friend and colleague, Dr. King, has always recognized this peculiar law of disease, and on my talking over the subject with him, on one occasion, mentioned that he then had a case under his care of a clergyman from the island of Trinidad, who had arrived at Barbadoes in health—was taken ill shortly afterwards, and had a fever with the constitution of that of Trinidad. The wife of this gentleman

was also taken ill with catarrhal fever, affecting, apparently, the bronchial tubes as in ordinary bronchitis, but which assumed a so decidedly remittent form, that he gave quina, which soon effected a cure. Dr. Bancroft seems evidently to admit that there is a difference in the type of disease as affecting new comers, and old residents; for, he observes, in his *Gulstonian Lectures*, that—"In the plethoric stranger, and in arid situations, the fever is usually *ardent* and *continued*, while in those who have resided some time in the climate, and whose systems are reduced from a high state of health and European vigour; and in uncleared woolly places it frequently assumes the remittent form. And Dr. Graves, in speaking of typhoid diseases, says, "that the tendencies of diseases and other febrile disorders depend less on any peculiar influence of the exciting cause, *than upon some change previously effected in the human body* by the silent and gradual influence of certain predisposing causes. In these few and insufficient observations, our desire is to draw attention to this subject, with the view to inquiry, and the hope that some good may result from the investigation.

That the past history of Barbadoes exhibits a striking contrast to its present sanitary condition, is a truism easily substantiated; but as this manifest improvement was contemporaneous with two mighty revolutions, the one physical, and the other moral, there may be a question as to which of the two the changes are to be ascribed. We hope, however, to be able to show that both had their influence, but that, beyond all doubt, the act of emancipation has had the greatest part in bringing to the island of Barbadoes at least, an amount of healthfulness which it has never before enjoyed, thus affording a striking example to governments, and to those who, labouring for the advancement of the whole human family, desire that unfettered industry should exert its natural supremacy over compulsory labour and bondage: that the cheapest poor-house is a well tilled field, and the best physician an abundant and wholesome supply of food and air.

If we look to the past and present history of the world, we find that it is evidently governed by laws which, very properly, may be entitled the laws of change, and which are in perpetual operation, progressing towards further or newer conditions, but in gradual and strict accordance with present requirements. Geologists have shown that revolutions, vast and incomprehensible, have taken place, and given way to newer formations; the museums of natural history have been made the depository of animals that once had their existence, but are now not to be found; while, ever and anon, the catalogue of living species is enriched by the discovery of new ones; and, in the moral world, how various are its different epochs. If, then, man has been adapted by an all-wise Creator to the sphere in which he moves: if he be a link in the mighty and unbroken chain of creation, can there be doubt but that he feels the vibrations, and participates in the ever varying movements which time and change inflict. It is not, then, surprising to find in the history of diseases instances of modification of constitution or character, nor the complete annihilation of some at various times, and whose histories are only

preserved to us in ancient records. As a ready instance, we may notice the *Sudor Anglicanus*; and we may point to others which have been let loose at times as a scourge to man, but are soon bound within very narrow limits. Dr. Mason Good, in his preface, volume 1st, observes, "that from a few nondescript skeletons occasionally found in the bowels of the earth, and particularly from the interesting museum of such established by Curien at Paris, we have reason to believe that a few species of animals have entirely disappeared, as we have also from the classification of recent naturalists compared with those of earlier times, that a few species are now in being, which had no existence in remote ages. And in like manner, whilst a few species of diseases are now no longer to be found, which are described by earlier writers, a few seem to have supplied their place, which are comparatively of modern origin.

So it is that the face of the world is continually changing, and places that were once the abodes of health, are nurseries for disease; while others which yawned as a grave for man, have become the gardens of his earthly happiness.

There is no part of the world to which the European goes with greater dread than to the West Indies, and it cannot be wondered at, when, from fatal experience he knows that even Barbadoes, the least marshy and most easterly of the whole chain, was not exempt from many severe and virulent diseases. On referring to Hilary's work, and taking the year 1795, which he represents as an unusually healthy year, as an example, we find that the month of January was cool and pleasant, and most healthful; there was little or no disease.

February—Was also dry, pleasant, and healthful.

March—Was ushered in with catarrh and coughs, which were followed by pleurisies, precess-pneumonics, and hooping cough.

April—The coughs, pleurisies, &c., continued with occasional cases of dry belly-ache and yellow fever.

May—These maladies abated somewhat this month, being unusually free from epidemic complaint.

June—Inflammation of the bowels prevailed, together with cholera-morbus, diarrhœa, dysentery, and putrid bilious-fever.

July and August—In addition to this fearful catalogue of diseases, quinsies, ophthalmies, and inflammatory fevers were rife, which became more aggravated during the month of September.

October—A catarrhal fever broke out, from which few or none, either black or white, escaped.

The catarrhal fever continued during the months of November and December, with the additional visitation of other maladies. This author dwells, too, on the frequent occurrence of tetanus, and says, "that it may justly be considered as endemial."

Until the visitation of the hurricane of the 11th Aug., 1831, the island continued in its career of usual unhealthiness; but immediately after, an immense climatic revolution seems to have been effected, and suddenly a season of extraordinary health succeeds to pestilence and disease.

Sir Walter Scott uses this well-known fact in painting

an analogy of the French revolution, "which in its effect may be likened to a storm or hurricane, which, passing over a region, does great damage in its passage, yet sweeps away stagnant and unwholesome vapours, and repays in future health and fertility its immediate desolation and ravage." The talented and esteemed Professor of Chemistry at Codrington College, the Hon. Grant E. Thomas, in a letter on the present state of the island, says, "I appeal to those who remember what used to be the condition of the town with regard to fever, and of our estate hospitals with regard to dysentery, and their sequel as dropsies, cachexy, &c., and who being charged with the responsibility of property, as well as of life, can never forget the wretched feelings which took possession of them when the limits of the hospital became too prescribed for the admission of applicants, whose continued fever, epidemic, catarrh, croup, and cyanche, daily sent in such numbers, as to cause enlarged accommodation to be provided for their reception, in some more extensive and commodious building. It may be stated, without fear of contradiction, that no such thing has occurred since the hurricane. Tetanus, the invariable accompaniment of the slightest wound or puncture of any kind, and, therefore, the terror of the surgeon, and the ghost which haunted the bedside of the wounded, is now so rare in its appearance, as scarcely to excite apprehension. Trismus nascentium, which used to carry off an incredible number of infants, even under the most favorable circumstances, when comfortable lying-in rooms were provided in the estate hospitals, and every requisite attention secured, is now incomparatively rare in its occurrence." That Professor Thomas is not singular in his opinions, the concurrent testimony of the whole body of the profession is amply sufficient to show, and many even add, "that where the old diseases have shown a tendency to return, they have been much more tractable and mild in their course." Since my arrival at Barbadoes, six years have elapsed, and although I have attended many cases of midwifery among the lower classes, and prescribed for a very large number of children during that time, I have not met with a single case of trismus nascentium; and with the exception of Dr. Butcher, who had, in the year 1844, one case in his practice, and which was fatal, I know of no other case. Within the above named period, I have had under my own care two cases of tetanus from cold; Dr. Howell of the Police Force one, arising in a European who had drunk a cup of hot tea, and immediately after exposed himself before a window, in a full draught of air. My friend and colleague, Dr. Clarke, two cases, one in 1843, in the person of a male cook, who was overtaken in a shower of rain after leaving his hearth, and the second, in a female; cause doubtful, as she had a very slight scratch on the instep. This case was brought into hospital on the fifth day, and at my request, my friend Dr. Clarke, under whose immediate care she had been admitted, ordered the use of the hot bath. I superintended its employment; as soon as the Thermometer indicated the heat to be 86, the patient was placed in the water, being as rigid, and the muscles as hard as the head of a drum; in five minutes the whole muscular system was entirely relaxed, and there was no return of

spasm; nevertheless, it was quite evident that the case was hopeless, and she died almost in three minutes after leaving the bath. I also may record three cases occurring in horses, two from cold; one from the same cause, but following the operation of docking, two of these animals were saved: the other died. I know also of four other cases, also from cold, happening in the year 1846.

The ox does not appear ever to have been so susceptible of tetanus, and the only fatality attendant on wounds that I know of, has been among these, and which may have been avoided by the exercise of a little forethought. Some young bulls had been driven a distance of not more than a mile in the early part of the day, but while the sun was very warm. Shortly after their arrival, they were castrated, together with a like number, belonging to the estate at which the operation was performed; every one of the former were ill; most of them died, apparently from a low typhoid fever, while none of the latter had a single bad symptom, and recovered rapidly.

To be continued.

ART. XLIII.—A MEDICO-LEGAL ESSAY ON FATAL DOSES OF PRUSSIC ACID.

By WM. WRIGHT, M. D.,

Curator of the Museum, McGill College.

(Continued from page 121.)

On the Modus Operandi of Prussic Acid.—Local or Immediate Action.—Its most prominent results are, tingling and numbness, or destruction of sensation; these are due to its anæsthetic power over the sensitive nerves, and are evinced when the vapor of the strong acid is approximated for a time to the skin, and by the calmative influence it exerts when used in morbid irritabilities or heightened sensations. It also possesses a paralyzing power as long as the link of reflex action remains unsevered. No obvious effect has ensued on the application of the poison to the brain or spinal cord: applied to some mucous membranes, as the gastric, it has created an hyperæmia in their capillaries; in others, as the nasal and buccal, it leaves a peculiarly acrid sensation.

Remote or Subsequent Action.—Prussic acid, when once introduced into the system, acts upon the brain and spinal cord—to do which it must, either mediately or immediately, come in contact with them, that is, it must be conveyed to them by a nervous or by a vascular channel. For the accomplishment of the last, primary absorption is essential; for that of the first, sympathy by continuity; this latter having or not having been preceded by venous absorption, and been transmitted through the nerves of animal, or those of organic life. Here, then, are the various phases which pertain to the present question, and each of them will now receive a very succinct consideration, for they are, comparatively, of but little importance to the medical jurist.

Sympathy by continuity, independently of previous absorption into the blood vessels, and originating in an impression on the sensitive nerves of the part to which Prussic acid has been applied.—This view has been adopted chiefly from the supposition, that the effects

caused by Prussic acid supervened too rapidly for the performance of primary absorption; from the statement that a poison requires nine seconds for its complete circulation through the body, and from experiments on animals, such as the killing of a dog in three seconds by a large dose of the acid. It is, however, untenable, for during the administration of excessive doses, especially if undiluted, much of them, as vapor, is drawn into the lungs; absorption by the pulmonary surface is instantaneous, and immediately that the poison is within the former's capillaries, it is hurried on with the mass of circulating fluid to the left side of the heart, thence to the aorta, through the branches of its arch that give off tributaries to the brain and spinal cord—the organs remotely affected by Prussic acid, which would thus have to travel, not the whole of the circulation, but merely one-third or less of its arterial portion, and therefore require much less time than three seconds for its arrival at these centres; and, *a priori*, by this route it could kill within the limit—three seconds. In instances of rapid death, excessive doses are administered, so that, though but a part of them gets at the lungs, and but a part of that part to the nervous centres, still it may be more than required to poison, for if nine-tenths of a grain of real acid have killed an adult human being, how much less would suffice for the destruction of a dog or cat.

Annexable to these arguments, which show the instability of the props of this theory, are those facts that are inimical to its erection, as—1, Prussic acid applied to the tongue or stomach operates after their nerves have been divided; 2, Prussic acid leaves traces in the blood of its having been absorbed by the vessels (*vide Post-mortem Appearances*). These, with other objections that will appear in their proper places, are deemed sufficient authorities for the rejection of the idea, that the remote *modus operandi* of Prussic acid is through sympathy by continuity, independently of previous absorption into the blood-vessels. But since it has been shown that this poison not only may, but does enter the sanguineous circulation, the question arises, might not its action depend upon sympathy by continuity subsequently to absorption? This, indeed, constitutes another theory, and shall now be discussed.

Sympathy by Continuity, with Primary Venous Absorption.—That is, the poison enters into the vessels, exerts its influence on the nervous fibrils distributed to their lining tunic, and the impression thereby created is transmitted by their continuances to the nervous centres. The inaccuracy of this is proved by the experiment of Verniere: when a ligature applied to the leg so as to stop the venous, but not the arterial circulation, prevented the action of poison inserted in the foot; but blood drawn from the vein below the ligature, and introduced into the circulation of another animal, proved fatal. Hence—1, Though a poison be absorbed, it does not act by sympathy—by influencing the nerves of the coat of the vessel containing it, for here the poison was in contact with them, and the blood was so charged

with it as to kill another animal. 2, It satisfactorily proves that the absorption of poisons is effected by the veins. I therefore also reject the theory of sympathy by continuity with primary venous absorption, as erroneous, and adopting the eclectic method of arriving at a conclusion, have only left for the explanation of the remote action of Prussic acid.

Its Absorption, and subsequent Diffusion through the Sanguineous Circulation, during which it comes in contact with the brain and spinal cord, probably by an elective attraction.—Additional arguments in its favor are—1, As long as the circulation remains intact, the poison acts, and *vice versa*. 2, "The intensity of the poison is in proportion to the absorbing powers of the part with which it is brought in contact." This will shortly be exemplified. 3, "A sufficient time always elapses between its application to the body and the first symptom of its action," to admit of absorption. This has already been demonstrated. These, as well as others that have been adduced, subvert the doctrines of sympathy, and establish that which has been asserted above.

It is more likely that the alteration of the blood effected by Prussic acid occurs post than ante mortem, as the continuance of the circulation and of the vitality of the blood would be opposed to it. Its result, moreover, would be a qualitative change of this fluid, of permanent existence, and followed by serious or fatal derangement of health, from which the patients could not so speedily recover as they do by curative means, and these would not be so simple in nature and unchemical in action as they are, had they to operate on the harmless compound into which the poison is resolved by the blood.

Condition of the Brain and Spinal Cord induced by this Acid.—According to Liebig's theory of the action of poisons, it might be thought that the quality of the nervous tissue was altered by the subtraction of some and the addition of other elements. But Prussic acid acts too rapidly to admit of this interchange. The fact is, their precise pathological condition is undetermined, but seems "to be identical with that which occurs during an epileptic paroxysm, and with that produced by loss of blood, for the essential symptoms are the same in all three, and ammonia has been found to relieve them."

How is death produced?—A powerful influence is exerted upon the cerebro-spinal axis when in contact with Prussic acid, and transmitted thence to the remainder of the nervous system, between which and the vascular there is such a minutely intimate connexion, that disturbance of the one subverts the due operation of the other. As these systems are the maintainers of every tissue and organ, these affections are speedily followed by those of their dependants, and consist, at first, of perversion, exaltation, or diminution of function, but finally of its suspension or abolition. Pereira states, "In most cases, the immediate cause of death is obstruction of respiration," or apnoea, as is shown by the excessive congestion of the lungs and right side of the heart. "In some instances," the cause of death "is stoppage

of the heart's action," or asthenia. In a former page it was inferred, from the multifarious experiments of Mr. Nunnally, that the right cavities of the heart would alone contain blood in cases of rapid death, as in apnoea, and that all the cavities would be filled in cases of slow death, as in asthenia. This is contrary to what would be expected, *a priori*; but it must not be forgotten, that the heart beats for some time, in rapid poisoning by Prussic acid, after the other evidences of death have set in, and hence the assertion of Pereira, "There are cases in which the death is too immediate to be produced by obstructed respiration, while on opening the chest, the heart is found still beating. This I have observed in experiments on rabbits with strong Prussic acid."

Intensity of the Poison in Proportion to the activity of the Absorbing Surface, with which it is brought in contact.—Prussic acid acts characteristically in whatever way it be applied to the body, but most promptly when injected into a vein, next when inhaled, next when applied to a wound, next when appended to the serous surfaces, next when within the stomach, or in contact with other portions of mucous membranes, as the conjunctiva, rectum, and vagina, and least of all when applied to the unbroken skin. The reasons for these differences appear to be—1, The extent of surface with which it comes in contact. 2, Nunnally's experiments show that dilution of the acid to a considerable degree "does not weaken the action, if it does not rather accelerate it;" but the undiluted acid, when taken into the mouth, is vaporised by its heat, therefore its relative amount is greatly increased, and as it is inspired, it comes in contact with the membrane of the bronchi and air cells—a circumstance already shown to be overlooked by many theorists. 3, The nature or physical condition of the tissue: hence one cause of the pulmonary surface absorbing more rapidly than any other tissue, is its finely delicate structure and great vascularity. The membrane lining the alimentary canal is less active, from its being less vascular, and covered, in some parts at least, by an epidermoid layer, and everywhere by mucus. Absorption is least active by the unbroken skin, as it is covered by an inorganic membrane, the epidermis. These facts caution the toxicologist against considering as indispensable, that the acid must have been swallowed in order to have poisoned. For a murderer who had sufficient acquaintance with its properties, might, either by force or cunning, introduce into the vagina or rectum, or put upon the eye, sufficient of it to quickly destroy life. Again, inhalation is very easily performed, very effectual in its results, and most difficult of detection.

Relation between the Rapidity of the Effects of the Poison, and of the Quantity taken.—Its action is not proportionably speedy to the amount taken. Thus it has been proved, that if 40m. of Scheele's acid will kill a dog within four minutes, 80m. would not have killed him in two or in one minute. Hence the practical inference, that we cannot, by the length of time a person has lived after having taken poison, predict with precision the amount of it that had been

taken. Again, much depends upon concentration, dilution, and other circumstances, fully treated of in former pages.

The chief questions of a toxicological nature which have, so far, remained unconsidered, but which will now receive attention, are,

Is Prussic acid an accumulative medicine? If Prussic acid be given for a disease, and death occur, to which is the death due? If the Prussic acid were not the immediate cause of death, might it not have accelerated it? Can a person, after taking a fatal dose of Prussic acid, live a sufficiently long time to attempt or perpetrate suicide in any other way? and, Was the poisoning accidental, suicidal, or homicidal?

Is Prussic Acid an Accumulative Medicine?—The affirmative seems to be favored by a case of Dr. Baumgartner's, which is quoted by Dr. Christison, and by an instance which Mr. Taylor says was communicated to him. Dr. Lonsdale, however, believes the reverse, and Dr. Guy states, "That the weight of authority is in the negative." Serious effects, it is true, have often followed slight augmentations of the dose; but as such do not fall within the panel of its accumulative effects, they do not pertain to the present question—to which, from the deficiency of facts, by which alone it could be determined, the most appropriate reply seems to be, It is highly probable that Prussic acid is not an accumulative medicine.

If Prussic Acid be given for a Disease, and Death occur, to which is the Death due?—Decidedly not to the Prussic acid, if it had been administered in medicinal doses, which it is presumed it had been, since in these it operates, as Pereira says, "without producing any alteration in the condition of the general system." Again, it is neither a corrosive, irritant, nor narcotico-acid. Reasons sufficiently powerful to justify the assertion, that, in a small dose, it is not contraindicated in any morbid state. A major dose, if exhibited, would be improper in those states of the organism whose analogue it induces, unless, indeed, "similia similibus curantur" be a correct doctrine. To such a case the above question would be particularly applicable, for, not unlikely, the disease, *in se*, was not fatal, and would have been conquered by proper treatment, so that presumption of poisoning would be justifiable. When, however, a fatal dose has been taken, little or no doubt can be entertained of the cause of death, especially if the draught had not its operation antagonised, and was soon succeeded by the catastrophe.

If Prussic Acid were not the Immediate Cause of Death, might it not have Accelerated it?—It is obvious that the death of a sick person might be accelerated in various ways by the negligent or unskillful employment of Prussic acid, such as by administering it when contraindicated or useless; by its precluding the employment of remedial agents that would have been serviceable; by its being taken in comparatively large doses by a patient already dying or afflicted with a mortal illness. These are merely a few examples of the phases that this question may assume, and which, with others that might appear, can only be

determined at the special case originating them, by "seeing events in their causes, obviating consequences, and ascertaining contingencies," "by which the mind will be inured to caution, foresight, and circumspection."

Can a Person, after taking a Fatal Dose of Prussic Acid, live a sufficiently long time to attempt or perpetrate Suicide in any other way?—It has already been shown, that a delay of three minutes occurred between the swallowing of gr. v. or gr. vss. of anhydrous acid, and the commencement of the symptoms, and that no delay occurred after the maximum doses, as gr. xl., of pure acid. From which the inference is justifiable, that if the dose be not a very large one, sufficient time exists for the person destroying himself in some other way, provided that the mode of death is an immediate one, and the means for its accomplishment readily attainable, and not complicated. When, however, the dose is an excessive one, no time exists for a second suicide, unless, perchance, everything for its performance were prepared before, and the death could be instantly effected on drinking the poison. Thus, if a person who stood on a stool with a rope's noose round his neck, and its extremity attached to some fixed point above, were to drink off such a dose, and immediately thereafter throw himself forward, his death would be due to the hanging, or strangulation, not to the poison, since death from hanging, or strangulation, is, *ceteris paribus*, instantaneous; and the schedule shows that the shortest time the largest dose of Prussic acid has proved fatal is two minutes. In a case, therefore, where the above question would be mooted, it would be necessary to obtain, before coming to a conclusion, a correct history, and every attainable circumstantial evidence.

Was the poisoning Accidental, Suicidal, or Homicidal?—This is "a most important question, when the life of the deceased happens to be insured." Accidental poisoning plays the least important part of the three, it and homicidal being of far less frequency than suicidal, which is to be looked upon as the rule, and they as its exceptions. The solution of this question is difficult, since it is to be attained by means which are frequently unattainable. The knowledge of the motive with which the poison was given or taken, offers an example of this. Thus, if it had been taken or given unintentionally, the case would be one of accidental poisoning; if it had been taken intentionally, a suicidal one; and if it had been given intentionally, an homicidal one. Circumstantial evidences will aid most in unravelling this question, examples of which will now be mentioned. If the poison had been taken from a wrongly or non-labelled bottle, or mixed with dietetic articles, the presumption is, that the case is either accidental or homicidal, and if many persons partook of the food, that it is accidental rather than homicidal, though the latter is not improbable. If the poisoning occurred in a child or an aged person, it is usually accidental or homicidal, as suicide in such is comparatively rare. Accidental would be most likely in the young, homicidal in the aged. If a person be found poisoned in a room, all communication

between its interior and exterior being cut off, the case, in all probability, is one of suicide; but if, on the contrary, there be ready access to the room, it might have been either accidental or homicidal. The possession of any of the acid that had not been swallowed, would favour the supposition that the poisoning was accidental, its non-possession that it was homicidal. The vehicle and poison may also be discovered in suicidal cases, though less frequently than in the accidental. The denial by surrounding friends, especially if disinterested, that the deceased was poisoned, would usually indicate that it had been accidental or homicidal. As several instances have been adduced which might be either accidental or homicidal, the following circumstances are mentioned, as their consideration may serve to discriminate the one from the other, and either of them from suicidal: "The suspicious conduct of the accused before, during, and after the illness or death of the deceased; his knowledge or experience of poisons and their properties; the possession of poison, and the fact of his having purchased it under false pretences; the existence of a motive or inducement to such a crime; the previous state of mind of the deceased, and the degree of probability that he would commit suicide." Quantitative analysis might detect homicidal from accidental poisoning, by determining the amount of anhydrous acid in equal quantities of that which had been taken, and of that which was said to have been given accidentally; the first containing a very much larger proportion than the second. In a former page it was suggested that the occurrence of a shriek before death might be present only in the accidental and homicidal, and therefore distinguish such from suicidal. The determination of suicidal or homicidal has hinged on the question, which has been previously answered, had a person, after taking a fatal dose of Prussic acid, sufficient time to cork the bottle, put it away, and perform other voluntary acts? Such occurred in the case of *Rex versus Freeman*.

Treatment to be adopted for the Recovery of Persons who have taken Fatal Doses of Prussic Acid.—The three main desiderata of attainment in the treatment of poisoning in general, are, the production of vomiting, the administration of the antidote, and the alleviation of prominent symptoms.

The Production of Vomiting.—This is rarely sought for in cases of poisoning by Prussic acid, for after the symptoms had commenced, it would be perfectly useless, as well as decidedly improper, from its excluding the employment of more appropriate measures. It may, however, be performed before the symptoms have commenced, and for this purpose, mechanical irritation of the fauces and the stomach pump are the most appropriate, since they are the most expeditious and certain of the modes for its accomplishment, and it is doubtful whether a person could readily be made to vomit by direct gastric irritants after taking Prussic acid.

Administration of the Antidote.—In describing the chemical analysis of Prussic acid, it was demonstrated that the oxides of iron, nitrate of silver, and sulphate

of copper, either alone or with tincture of guaiacum, formed precipitates, or insoluble compounds, with Prussic acid. This suggests their application in the treatment of poisoning by this agent, since the action of the products they form with it must be less energetic and potent on the economy, than that exerted by it alone. The administration of nitrate of silver or sulphate of copper would be, however, rather hazardous, and could not safely be ventured upon, since they are active irritants, and would act as such, if given in the doses that would be demanded, did they not meet with the acid, or with a sufficient quantity of it in the stomach—a circumstance not at all unlikely. The same objections do not apply so forcibly to the preparation of iron, which is a mixture of the protoxid and peroxid; wherefore it is the most eligible. It is easily formed by adding an excess of carbonate of soda or potassa to a solution of the common sulphate of iron which has been partly peroxidized; the mixture is to be preserved in a stoppered bottle. The result of its union with Prussic acid is Prussian blue, which is an insoluble and innocuous salt. With the same intention, rust, the precipitated green oxid, green vitriol or the muriated tincture, alone, or in combination with alkalis, may be tried. Hunsfield stated that cyanic acid was harmless, though cyanogen itself was poisonous: now, it is not impossible that, by the inhalation of oxygen, or the administration of oxygenated water, Prussic acid would be converted into these acids. Thus, $H.Cy + 2O = Cy O, HO,$ or cyanic acid. This, however, is a mere speculation of mine, baseless of observation. Other substances, as chlorine and ammoniacal gases, have been brought forward as antidotes, but further on it will be shown that they do not enter into combination with the poison, and deprive it of its virulence, by forming with it an harmless compound; in other words, that they are not chemical antidotes. Admitting, then, that the oxides of iron are an antidote to Prussic acid, but little practical advantage is obtained from them when the system has been affected by fatal doses of the poison, which it is with astonishing rapidity; for if it be presumed, that to do so it must have left the stomach or its receptacle, and entered the circulation, the inutility of the antidote becomes palpable, since it can only subvert the malignity of the poison by coming in direct contact with it while unaltered, and that could only be in its primary receptacle. Even supposing that only a portion of the acid was absorbed, that the antidote was administered, and neutralised the remainder, no benefit would thereby be gained; for it is well known that it should be used before, or at farthest immediately upon the supervention of the symptoms, since those already in existence are sufficiently competent, *per se*, to destroy life, and it has already been shown, that a very little of the poison suffices for this purpose. The antidote, to be available, should be kept ready prepared, which it is not likely it always would, and even if it were, it would be of little use, as the medical man rarely sees his patient before the commencement and progress of the symptoms, when, as appears by the above, it would

be useless. The antidote can, therefore, be only serviceable before the symptoms commenced, and then a safer procedure would be the evacuation of the stomach of its contents, so that recourse to an antidote at this time is not indispensable. After recovering the patient from the more urgent symptoms, by other means, the antidote, though possibly superfluous, may be exhibited in order to render "assurance doubly sure."

Alleviation of Prominent Symptoms.—The most constant of these are, diminution or cessation of the respiration and heart's action. Abolition of consciousness, volition, and sensation. The means for their alleviation are, cold affusion, chlorine, ammonia, artificial respiration, and external stimulants. These, it seems to me, prove serviceable by creating an agency subversive of that of the poison; to accomplish which they exert a stimulus upon the nervous system, through it keep up the respiration, the perpetration of which is followed by contractions of the heart, the effect of which is, the continuance of the sanguineous circulation—the fountain of life. That the above hypothesis is correct, is in a measure proved by the cases and experiments on animals alluded to in a former page; from which it was alleged that the effects of restoratives, during poisoning by Prussic acid, are to cause deep inspirations. Ammonia cannot, as was supposed, be useful by entering into chemical combination with the poison, *i. e.*, as an antidote, since a soluble hydrocyanate would be formed, and all the soluble compounds of Prussic acid are as energetic as the acid itself. Chlorine has been said to abstract the hydrogen and free the cyanogen; but, if such were the case, hydrochloric acid gas, a corrosive and cyanogen, a powerful poison, would still remain in the system. Independently of the above five principal means of alleviation, there are others of less importance, which act in a somewhat analagous manner, and which will shortly be mentioned. Occasionally, after the establishment of respiration, symptoms of congestion, especially of the encephalic circulation, exist, and require blood-letting for their removal.

Each of the means that is applicable for the alleviation of prominent symptoms caused by fatal doses of Prussic acid will now be detailed, and a few observations will be appended to the more important of them.

Cold Affusion.—Its great advantages are, that the necessaries for its accomplishment are always attainable, and that it may be employed at any stage of the poisoning, though with most prospect of success when the dose has been barely sufficient to destroy life, and the more advanced symptoms, as convulsions, have not supervened; when, according to Herbst, its efficacy is almost certain. It has frequently been successful even when there has been insensibility and paralysis, and then the occurrence of convulsions was an indication of its utility; the retrogression of the symptoms showing its efficacy. Its effects are usually instantaneous, and marked by a speedy return of sensibility and consciousness. No delay should elapse

in its employment, and a priority should be given to it over other agents, since, to use the words of Mr. Nunnally, "of all the remedies I am acquainted with, I should be disposed to place most reliance upon cold affusion," for it has succeeded in rousing when stimulants have failed to do so. It may be performed by an assistant, while the medical man is engaged in the application of the other remedies which require more intelligence and circumspection. The readiest mode of doing so is to fill a jug with the coldest water that can be obtained, and to pour it in a continued stream from a height on the patient's head and spine. One circumstance is, however, never to be forgotten, and it is, that while affusion or aspersion is serviceable, immersion, or their excessive use, is injurious; for it is as a shock that it is useful, and in as far as it chills the surface, it is injurious in all those cases; where death not taking place very promptly, the surface is blue and cold, and the respiration oppressed, in this state warmth, friction, and stimulants are strongly indicated."

Ice, or Frigorific Mixtures, have been advised to be applied to the nape of the neck; their use will always be supplanted by cold affusion, after the employment of which they may be resorted to if deemed necessary.

Chlorine.—A solution of it has been strongly recommended to be injected into the stomach, or, if the patient could swallow it, for him to do so. The dose of the aqua-chlorini (D. P.) is ʒij., properly diluted, and repeated ad effectum. Enemata of it have also been suggested. If the patient can inhale, he should breathe very cautiously air impregnated with the gas. A temporary and occasional application of the gas itself to the nostrils, would probably be most beneficial. Pereira says, that chlorine is the most powerful of the agents employed; and Taylor, that it is a remedy of doubtful character. An objection to it is, that in order to obtain all its benefits, both the gas and liquid should be available, which it is not likely they will generally be in cases of emergency. Chlorine gas should always be properly diluted before being inhaled, for when pure it produces asphyxia, by closure of the glottis. Substances containing this element, as bleaching powder, Labarraque's solution, aqua regia, &c., might be used in its absence, if proper precautions were observed.

Ammonia may be employed in all the ways suggested for the use of chlorine; of these, inhalation is the most effectual, and, according to Orfila, any other mode is useless. The most serviceable of its preparations would be the gas, the water of different strengths, the spirit with or without aromatics, eau de Luce, and the three carbonates, especially the sesqui. Pereira affirms, that it is of less value than chlorine; it will be, however, more often at hand than it, when required. When using it to the respiratory mucous membrane, the application must not be excessive, either from its too great length or strength, and thus an inflammation, with its consequences, will be avoided in those portions of it with which the vapor has come in contact in its trajet. In the absence of ammonia, the fumes of burnt feathers might be applied to the nostrils, and it should be remembered that the former can always be easily generated by triturating sal ammoniac and lime together.

Other *stimulants*, as brandy, ether, turpentine, &c., may be administered by the mouth or anus, and possibly, if oxygen, or protoxid of nitrogen gases were attainable, their inspiration would also be adjuvants in recovering persons from the poisonous effects of Prussic acid.

Artificial Respiration.—"This," says Pereira, "ought never to be omitted; of its efficacy I am convinced, from repeated experiments on animals." Like cold affusion, it has a special claim on the practitioner, from the ease with which it may be performed, and the fact that it is always available. Expiration is performed by making "powerful pressure with both hands on the anterior surface of the chest, the diaphragm being at the same time pushed up. Inspiration is effected by the removal of the pressure, and the consequent resiliency of the ribs."

External Stimulants.—Under this head are placed frictions of the surface in general, or in part, as of the chest, with stimulating embrocations, the bases of which usually are, ammonia, spirit, turpentine, acetic and dilute mineral acids, mustard, cantharides, camphor, capsicum, rosemary, &c. Here, also, are included the maintenance of warmth and the application to the extremities of plaisters, or cataplasms, compounded of ingredients analogous or identical with the above. The symptoms indicative of a necessity for the use of stimulants, are those which originate from sluggishness of the circulation, oppression of the respiration, imperfect decarbonization of the blood, and diminution of animal heat.

Electricity and Galvanism have been recommended to be applied to the spine. They should not be employed to the exclusion of other means, as cold affusion and artificial respiration, which are known to be effectual, less complicated, and always available. These, therefore, should first receive a fair trial, and on their failure, they, as dernier resorts, might be ventured upon.

Bloodletting.—But little requires to be remarked concerning it, for the cases demanding it have been mentioned in an anterior page, and it is a remedy rarely resorted to. Of the different vessels, the jugular vein has been advised as the most suited for the operation.

As a conclusion to the treatment of poisoning by Prussic acid; it may not be uninteresting to note the order in which the different remedial agents may be used with most advantage. If the symptoms have not begun, irritate the fauces; wash out the stomach thoroughly by the pump, using for this purpose water, holding in suspension the mixed oxides of iron. This accomplished, it may alone suffice to preserve life, but it may be as well, or even necessary, to try cold affusion for a short time; and for the patient to keep ice or frigorific mixtures to his head and spine, to smell every now and then ammonia, or inhale chlorine, properly diluted, for a certain period. If the symptoms have commenced, immediately proceed with cold affusion, and the use of chlorine or ammoniacal gases. Do not exaggerate the affusion or aspersion into immersion, and abstain from it when death is dilatory, the surface blue and cold, and the respiration oppressed; here maintain heat, and employ external stimulants. With regard to the gases, they may be applied pure at first to the

schneiderean membrane, in the manner mentioned previously; subsequently inhaled, if properly diluted, and afterwards solutions of them administered by the mouth or anus. If the respiration have ceased, keep it up artificially. The more grave symptoms conquered, the different internal stimuli may be judiciously resorted to, and attention is again directed to oxygen and protoxid of nitrogen, which, if they be not antidotal, are certainly vital stimulants, and serviceable in perfecting and maintaining the arterialisation of the blood. The application of external stimulants is to be instituted by assistants, whenever there are symptoms requiring them, and the medical man is engaged in the use of more important means. Electricity and galvanism may be used when everything else has been fairly tried and failed; for it must never be forgotten, that two simple and available means will, as a rule, save the patient, if he is saveable, and they are, cold affusion and artificial respiration, neither of which should ever be omitted. The after treatment will, in a great measure, depend upon the symptoms that are predominant. Thus, if they are those of congestion, blood-letting will be required, and it is preferable that the source whence it is derived be as near as possible to the part oppressed. If symptoms of sinking occur, recourse must be had to the usual diffusible stimulants. The ferruginous antidote may be administered if it be thought that any of the poison remains in the stomach, while a patient is under the influence of stimulants, by whose agency he had recovered from the immediate symptoms of danger. Great care must be observed in combining any of the agents that have been advised, and to do so, a knowledge of chemistry is indispensably necessary, for without it, the practitioner may directly pervert the end he had in view; the death of his patient being the fruit of his ignorance. Thus, if chlorine and ammonia, as inhalations, be administered together, nitrogen gas, a non-supporter of life, and muriatic acid, a corrosive poison, would be the results. If ammonia and oxygen, water would form the residue, and nitrogen be freed. I will not multiply examples, as they would not strengthen an assertion that does not admit of denial.

ART. XLIV.—CASES OF GUNSHOT WOUNDS, OCCURRING IN THE MONTH OF JUNE IN PARIS.

By GEORGE D. GIBB, M. D.,
Licentiate Royal College of Surgeons, Ireland.

The following cases of gunshot wounds of the head and face, are some of the most interesting which occurred in the city of Paris during the eventful days of June—I have necessarily abbreviated them for fear of occupying too much space in the columns of your Journal, and on a future occasion shall send those of the chest, abdomen and extremities, if you think them worthy of insertion; I may remark, that they formed the subject of a paper which I read before the Parisian Medical Society.

The first case is that of an elderly man, a National Guard in the hospital of *La Pitié*, with a gunshot wound of the head; the ball had entered the right side of the forehead, penetrating the frontal bone, and becoming lodged in the cavity of the skull; on the 24th July he

presented the symptoms and appearances of a man labouring under organic disease of the brain, his brows were contracted, there was a peculiar stupid expression about the face, stiffness of his limbs, with nervous agitation and slight subsultu; the wound itself was circular, with irregular margins, and much larger than an ordinary musket ball, pus was oozing from it, and its centre was occupied by a greyish slough: a portion of the dura mater. A week after, he appeared much improved, was more collected and answered questions rationally; the wound was still suppurating, and the rise and fall of the brain, synchronous with the respiration, was beautifully seen; he complained of pain all over the head, but particularly at times near his left ear. At the present time there is a great improvement in his appearance, his face appears quite calm with a little fullness about the right eye; his faculties are perfect, he sleeps from five to six hours nightly, his appetite is improving, and his pulse 72, quite soft and compressible; he complains of soreness at each side of the occiput; the wound is coming on very well and is now closing, and the discharge of pus is greatly diminished. The surgeon, M. Michon, lately removed some small splinters of bone, and this morning (24th August) removed a few more from the wound. The man's feelings and appearances are such, together with his general improvement, as to permit of the most favourable prognosis.

2. Case in the *Hopital Beaujon*, of a captain of the 27th Regt. of the Line, who had received a wound in the head in June, the ball entering the skull a little above the supra-orbital ridge of left side, fracturing it, passing through the substance of the brain, and making its exit behind the left ear through the squamous portion of temporal bone, and grooving the mastoid process externally; a portion of the cerebral substance escaped through the posterior wound at the time of its infliction, and an abscess subsequently formed under the integument at the back of the ear, which was opened about 17th July. This patient, on admission in June, was highly delirious, requiring to be forcibly held down, and was copiously bled. 7th August, his intellect is wavering, he talks all sorts of nonsense, and addresses the surgeon, M. Robert, as "*Mon Générale*." His left eyelid is closed, the eyeball is not destroyed, but the sight is entirely gone; the wound anteriorly has healed to the size of a large pea. From this date he became gradually worse, and died, on the 10th instant. *Autopsy*.—That part of the brain traversed by the ball, and to some extent around, was a mass of thick pus; a portion of a musket ball, (about one-third,) of an irregular form, was found near the internal surface of the posterior wound, evidently detached as the ball was passing through the temporal bone; almost the entire brain was in a state of ramollissement, and the lateral ventricles were filled with sero-purulent fluid.

3. A frightful looking case of an elderly man in *La Pitié*, wounded in June; a musket ball had entered the skin in front of the right ear, passing forwards anteriorly, carrying away a portion of the malar bone with fracture of the frontal bone, and destroying the eye: extensive sloughing followed, leaving a most terrible wound; the surgeon, M. Michon, stated that on admission the cere-

bral substance was exposed, he had, however, been very actively treated, and is now doing well, but will be much disfigured. This case presents some points of interest, the extensive fracture exposing the brain without lesion of its substance, the total loss of the eye, and the occurrence of the wound from a shot fired nearly behind the man.

4. A case in the *Hôtel Dieu*. A wound produced by a ball on the right side of the vertex of the head from before backwards, laying bare the skull, but without a solution of continuity in its substance; the patient had paralysis of the left arm with loss of sensation and motion supervening on receipt of the injury, which, however, disappeared in a few days. The bone is exfoliating, and the case otherwise doing well.

5. Case of a soldier of the Line in the *Hopital Beaujon*, where a fragment of a ball had struck the right side of frontal eminence, fracturing both tables of frontal bone, and becoming lodged in the diploe, the brain and its membranes were uninjured. The fragment was removed, suppuration of the wound commenced without any bad symptom, and the patient was discharged well, about a week ago.

6. Case in the *Hôtel Dieu* of a *Garde Mobile*; where a ball had struck the right incisor teeth of inferior maxillary bone, fracturing it, and passing through the right side of floor of the mouth into the substance of the neck on the same side, where it still remains. The wound in the mouth has healed, the two central and right lateral incisors, canine, and one bicuspid tooth are gone, the fracture has united, but the callus is not yet absorbed, and there does not exist that amount of suppuration to be naturally expected from the lodgment of the ball. The shot was fired from an upper window near one of the barricades.

7. Case in the hospital of *St. Antoine*, of a soldier of the Line, where nearly all the upper lip, a portion of the septum of the nose, the alveolar process with front teeth of upper jaw, and a small part of the front of the roof of the mouth were shot away by a musket ball; the severe wound resulting is now nearly healed, excepting some redness and swelling on left side of the face near the nose. The surgeon, M. Nellanon, intends very shortly to remedy the deformity, by a rhinoplastic operation.

8. An interesting case in *La Charité*, where a musket ball had passed completely through the face of a *Garde Mobile*, aged 17, entering on the right side through the malar bone, and passing out of the same bone on the opposite side; there is little or no deformity, and both wounds have perfectly healed.

9. A case equally interesting, in the *Hopital Beaujon*, of a *Garde Mobile*. A musket ball entered the right side of the face, at the side of the ala of the nose, passing through the superior maxillary bones, and emerging through the cheek in front of the anterior border of ascending ramus of left side of lower jaw; a number of the left upper teeth were lost here, and the remainder are quite loose and ready to drop out. There is some deformity on the right side of the nose, from present redness and swelling near the wound, but the case is otherwise progressing favourably.

10. Case in the hospital of *St. Louis*, of a soldier of the Line; where a ball had entered the superior maxillary bone under the left eye, close to the malar bone, where it was lodged; it was extracted the day of admission in June, and now the wound is perfectly healed, and the patient discharged.

11. Case in the *Hotel Dieu*, of a *Garde Mobile*. A ball had entered the left cheek near the angle of the mouth, passing obliquely downwards, and backwards, inside of the lower jaw, escaping under it, and emerging in the border of the trapezius muscle; a highly interesting case, as the jaw was not fractured, nor the carotid artery wounded, and the course of the ball was slightly circuitous; it is doing very well, with some suppuration from the posterior wound.

12. Case in *St. Louis*, of an insurgent, where a ball struck the external angular process on right side of frontal bone, fracturing it, and passing inwards into the socket of the eye, where it was lodged; extensive inflammation of the eye followed the receipt of the injury, which was treated antiphlogistically, and is not even now subdued, the eyelid remains closed, and there appears to be a partial collapse of the eye itself. The ball was extracted with some difficulty on the 16th, and in three days after, the patient was removed to the prison of *St. Lazare*, much improved, but with very imperfect vision.

13. A case in *Hotel Dieu*. A ball entering over the nasal process of superior maxillary bone, on left side of the face, passing downwards, under the integument, and coming out through the lip, over the canine teeth of same side; the ball did not penetrate the deep structures of the face, and the shot was fired from an upper window of a very high house, the patient (a National Guard) being in the street below. No bad consequences followed, and the wound is perfectly healed.

14. Case of a National Guard, aged 30, in *St. Louis*. A ball had passed through the ala and septum of the nose from right to left, traversing them in such a manner as to leave their inferior borders intact, and at same time not to injure the ossa nasi. The orifice of the wound had contracted, after the passage of the ball, and was small and irregular. The surgeon, M. Jobert, feared serious consequences might possibly arise in this case, as he thought erysipelas would follow upon the wound of the cartilage, while at same time a shock communicated through the vomer might have been sufficient to do some injury to the small bones at the base of the skull; fortunately this last supposition was incorrect, and no bad symptoms indicating the occurrence of any such injury followed. Erysipelas did, however, attack the wound about the 4th day, and spread rapidly over the face, it yielded to proper treatment in three or four days, and the case then progressed rapidly without further mischief, permitting of his discharge in the 4th week, cured.

15. Case in the *Hotel Dieu*. The ball had entered the mouth just below and to the outer side of its left angle, passing backwards and making its exit near the posterior border of the ascending ramus of left side, fracturing the horizontal ramus of the jaw in its course; this case is doing very well, some fragments of the bone have

come away through the mouth, and a little deformity remains at its angle.

16. Case in the *Hopital Beaujon*, of a soldier of the Line, who had fallen against a large stone while storming one of the barricades, severely wounding his right cheek, and sustaining a compound fracture of the lower jaw; the wound in the cheek is now healed, but the fracture has not perfectly united; from the wound under the chin some of the comminuted portions of bone have come away during suppuration, he can open his mouth a little, and is fed on a spoon diet.

17. Case in *La Charité*, of an insurgent, aged 28, who was standing beside a barricade when a cannon ball struck it, causing splinters and fragments to fly in all directions. He was severely wounded by the latter, one mass striking him on the left forearm just above the wrist, tearing away the skin and muscles, for a space of three inches, but without fracturing the bones. Another struck him on the left side of the chin and neck, carrying away the front of the lower jaw, with portions of the muscles attached to it, thus producing a most terrible lacerated wound the size of the hand, with rough edges, the skin having also been torn away from the front of the neck as low down as the middle of the thyroid cartilage; the lower lip which bounded the wound above remained almost intact, whilst the tongue and thyroid cartilage were completely exposed. Greased charpie was at first the only dressing applied, changed afterwards to poultices; the wound progressed more favourably than could be expected, no very bad symptoms ensued, and by the 23rd August it had cicatrized, leaving the patient much deformed, but still possessed of the power of distinct articulation.

18. Case of an insurgent also in *La Charité*. He received a wound in the neck from a bayonet, which had entered just below the angle of the lower jaw on the right side, almost directly in the line of the carotids, it seemed as if the instrument had pushed them aside in its course; it passed upwards and slightly forwards, piercing the root of the tongue, passing between the teeth, and finally perforating the centre of the left cheek; no hemorrhage occurred, the orifices of the wounds were contracted, very small and slightly triangular; they healed very quickly, as did also the track of the wound, and the patient was one of the first sent from the hospital to the prison.

19. Case in *La Charité*, of another insurgent. A ball struck the left cheek, passing through it and then the dorsum of the tongue, escaping through the floor of the mouth, on the right side. When brought into the hospital his tongue was strongly retracted, and suffocation from this cause so imminent, that the surgeon, M. Velpeau, was obliged to draw it forward and secure it by a suture. On the second day he was still suffering from impeded respiration, owing to the enormously swollen state of the tongue, which now protruded from the mouth for two inches, and almost filled the circle of the lips, it was dry and brown on its upper surface and fissured, the rest was of an intense red. He could not speak and made known his feelings and wants by writing, he described particularly the sense of immediate suffocation, and expected to die almost hourly, this was

much increased when in the recumbent position, he was therefore obliged to pass several days and nights sitting on a chair, resting his head upon the bed in front. On the 4th day a copious salivation commenced, which, by keeping his tongue constantly moist, added greatly to his comfort. As the inflammatory symptoms subsided, the tongue gradually diminished in size, and his respiration became easier and more comfortable. 23rd August. The wounds are healed; he now breathes with freedom, his tongue protrudes for about an inch, and can be drawn a little inwards, and he can articulate indistinctly. No particular treatment was adopted in this case.

Paris, 26th August, 1848.

ART. XLV.—PHRENOLOGICAL SKETCH

Of the character of Dr. Wm. Dunlop, late Member of Parliament for the County of Huron.

By Dr. G. RUSSELL, Montreal.

Having been particularly requested to draw up a sketch of the Phrenological character of Dr. Dunlop, as furnished by a cast of his head, taken after his death,—now in my possession,—I willingly do so. From that cast I will, in the first place, state, in a tabular form, the comparative developments of the various phrenological organs, according to the scale uniformly adopted by me, viz: “very small, small, moderate, average, full, rather large, large, and very large”; and, secondly, I will endeavour to delineate, in general terms, the character indicated by the developments so obtained.

Size of Head.—Very Large.

DOMESTIC PROPENSITIES.

Amativeness—Love for the opposite sex.—Small
Philoprogenitiveness—Love for children.—Very large.
Adhesiveness—Friendship.—Very large.
Inhabitiveness—Love of home.—Rather large.

SELFISH PROPENSITIES.

Combativeness—Disposition to oppose—courage.—Very large.
Destructiveness—Disposition to injure.—Full.
Alimentiveness—Desire for food.—Very large.
Acquisitiveness—Desire for property.—Average.
Secretiveness—Disposition to conceal.—Full.

SELFISH SENTIMENTS.

Cautiousness—Fear—sense of danger.—Full.
Approbativeness—Love of praise.—Full.
Self-esteem—Self-respect.—Very large.
Firmness—Decision of character.—Full.
Concentrativeness—Application.—Full.

MORAL AND RELIGIOUS SENTIMENTS.

Conscientiousness—Justice.—Full.
Benevolence—Kindness.—Large.
Veneration—Disposition to worship.—Rather large.
Hope—Expectation.—Rather large.
Marellousness—Belief, wonder.—Very small.

SEMI-INTELLECTUAL FACULTIES.

Constructiveness—Contrivance.—Moderate.
Ideality—Love of the beautiful.—Small.
Sublimity—Love of the Sublime.—Large.
Imitation—Ability to copy.—Moderate.
Mirthfulness—Wit.—Large.

INTELLECTUAL ORGANS.—PERCEPTIVE FACULTIES.

Individuality—Knowledge of things.—Very large.
Form—Perception of shape.—Large.
Size—Perception of dimension.—Large
Weight—Equilibrium—power of judging of physical force.—Very large.
Colour—Perception of colour.—Very large.
Order—Neatness—love of order.—Full.
Calculation—Ability to compute.—Average.
Eventuality—Memory of events.—Very large.
Locality—Memory of places.—Very large.
Time—Memory of duration—the lapse of time.—Very large.
Tune—Perception and love of melody.—Full.
Language—Memory of words.—Full.

REFLECTING OR REASONING FACULTIES.

Comparison—Ability to analyze—to illustrate.—Full.
Causality—The power which discovers the relations between cause and effect.—Average.

The head is one of the largest which I have ever examined, measuring round the superciliary ridges, and the occiput, twenty-four and a half inches. Size of brain, *cæteris paribus*, is the measure of mental powers; therefore, a man with such a brain, having an ordinary temperament, would have a powerful influence on the society in which he moved. It must be confessed, however, that the mental power indicated by the above measurement, is only that of the animal part of human nature.

From a likeness of the Doctor, which I have obtained through the kindness of a friend in Toronto, I would infer that his constitutional temperament was a combination of the sanguine-bilious. If such was the case, he would have a *strong, robust, physical* constitution; his activity would be more of a physical than of a mental character. This temperament, in combination with his very large combativeness and self-esteem, would give him a love for the athletic sports of the field, and he would be disposed to pride himself on his *bodily prowess*. From the insufficient data presented by the cast alone, it appears as if, towards the close of his life, the nervous lymphatic temperament predominated. In this case, he would be characterised by *habitual indolence*; but when roused by any matter of importance, he would display great mental energy for a time, until again overpowered by his wonted *love of ease*.

All his domestic organs are large, with the exception of Amativeness; hence he would evince great *fondness* for *children*, and the associations of *hearth and home* would excite powerful emotions in his mind; but Ideality, as well as Amativeness, being deficient, there would be

a marked *want of refinement, tenderness, and delicacy* in his conduct towards the fair sex. His strong friendly feeling would be *appreciated* by all who were intimate with him, although to a partial acquaintance he might appear sometimes to take rather equivocal methods of showing it. His strong social propensity, with his large Mirthfulness and Alimentiveness, would render him a *first rate boon-companion*. He would take a pleasure in *bantering* his comrades; and although the play of his wit would be something like that of a giant, who would not take into consideration the keener sensibilities of the inferior beings with whom he sported, yet there would be *no malignity* in his sallies.

He would be a *daring and reckless* enemy under opposition, but a *magnanimous conqueror*.

Firmness is scarcely large enough to render him *consistent and straightforward* in the maintenance of *fixed principles*. There would be a good deal of the *epicurean* in his *philosophy*.

He would be naturally *sceptical* in regard to *religious matters*; indeed, he would be very much disposed to *doubt*, if not to *reject*, everything which could not be proved by *observation and experience*. Nevertheless, he would be disposed to pay deference to *religious ordinances*, and manifest a regard for *ancient and time-honoured* institutions. He would, generally speaking, be an *independent, thinking man*, although very much disposed to yield to the *solicitations of friendship*.

He would have nothing of the fop or the monkey about him. He would despise every thing like *hypocrisy* and *sham*; care very little for general *popularity*; be inclined to rail at what the world calls *fashion*; and the sighing sentimentalist would find no sympathy with him.

He would be rather too *careless* in regard to *money matters*. If he had sufficient to meet his present necessities, he would be too much disposed to let the future look out for itself.

He would be rather deficient in some of the *improving, refining, and elevating* sentiments of our nature, which, taken in connection with great perceptive powers and animal propensities, would render him a dry, plain, blunt, rough, home-spun, matter-of-fact sort of a person.

It is inferred that his intellect was powerful but impracticable; a very large brain, greatly developed in that region which gives the power of acquiring knowledge, while Constructiveness, Ideality, Imitation, and Casuality, were comparatively much inferior, these latter being the faculties that enable us to turn our knowledge to some useful account. He would be a great experimenter without a pre-arranged plan; he would be disposed to rely too much upon his own progressive

experience, without sufficiently considering the new circumstances or contingencies to which he might be exposed.

In regard to the fine arts, he would be very capable of detecting the most minute faults in the works of others, yet his general taste in such matters would be so peculiarly his own, that very few would be willing to acknowledge its superiority.

From the powerful combination of certain organs that he possessed, he must have had an almost super-human memory of facts, circumstances, and details. He must have had excellent powers of describing and illustrating; and his anecdotes would generally be "to the point."

His pictures would be strikingly graphic, without much romance or sentimentality about them.

His language would not be copious, but his ideas would be clear, terse, forcible and expressive. The bayonet would be his favourite weapon in battle, and in argument, likewise, he would generally depend upon the charge.

Upon the whole, the cast before me indicates that the man from whose head it was taken, was mentally a great, strong, rough, generous, and magnanimous individual; but from the same datum, I am compelled to say, that he would not be disposed to trace the relations between the vast concourse of ideas that thronged his mind, and great fundamental principles. "Facts are said to be stubborn things." He would be master of a mighty army of facts; but in consequence of some of his superior officers being inefficient, that army would most likely exhaust its energies rioting in *Cannæ*, while it ought to have been *battering Rome*.

He would be rather too much a man of the present, and very much disposed to think, considering all things, *that well fed slaves are better off than hungry freemen*.

Such is a very imperfect sketch of the character of this extraordinary man, which I have drawn phrenologically from the cast before me. It is quite possible that I may have erred in some of my deductions. However, the cast may be examined at my cabinet by any person desirous of doing so; and whether or not it affords any evidence of the truth of phrenology, let those determine who were best acquainted with the character of Dr. Dunlop.

ART. XLVI.—THE DUTIES AND RESPONSIBILITIES OF PHYSICIANS TO INSANE ASYLUMS.

By A. VON IFFLAND, M.D., Resident Physician, Beauport Lunatic Asylum.

Dr. Conolly very properly and humanely observes, "a lunatic asylum is not intended merely to be a place of security, but a place of cure, and that every case is curable or improvable, up to a certain point." The cure

of the curable, the improvement of the incurable, and the comfort and happiness of all the patients, should be the constant study of the physician. But, as has been observed by an anonymous, but eloquent writer, (it was asked by Plato, as it is sometimes asked even at the present day), "what has society to gain by the protracted existence of lunatics? What in England, too, whose population, according to some philosophers, is increasing so much faster than subsistence?" Much. It is a law of nature, that every man should be liable to innumerable diseases—secure from none. No one can look forward with certainty to a constantly serene course. The heart that beats well to-night, may fail on the morrow; the subtle brain, playing in all its might, and throwing off thick coming thoughts, may in a day be cast into irreparable disorder. You stand secure, calm, believing stedfastly in your fate, but know you all the secret cells of madness? Have you good security against exposure to its causes? Your passions, may they not be overstretched; your enthusiasm exalted? The extraordinary circumstances in which you are placed, can they not lead to distraction? And cannot that fortune, the riches, friends, household staff of happiness, on which you count in all your calculations, desert you in the hour of trial? Oh! there are many ways to madness. What, then, sustains the provident citizen under the diseases which hang like threatening clouds over his life, and the lives of his dearest friends? Is not the consciousness that if disease should come, every means will be employed calculated to restore the body to health; that if the affliction prove lasting, it will be outlived by tenderness, and that at last, the head will be let fall gently upon the breast of the parent earth.

If we bear in mind, that insanity is a malady which plays through the whole range of the human character—through all the faculties and functions—in all possible modifications of sensations, of the propensities, of the perceptions, of the feelings, and of the intellect; and, consequently, displayed in different instances, in every possible form of external manifestation, we must be readily convinced, that a medical superintendent of the insane, before undertaking his important duties, should be one who, by long study, experience, and application, is enabled to direct his inquiries into the means of influencing, regulating, and restraining, their abnormal psychological phenomena; and so of gradually changing their character. In the commencement of the inquiry, some might suppose, as Dr. Thurnam observes, that such strange and unusual manifestations of mind, would require some equally unusual special agencies to be called into play for their suppression; and this principle has, in fact, been too generally acted upon in former times,

and in some degree, even in our own day; and it perhaps affords the best apology that can be offered for the cruelties and barbarities which have been so unblushingly resorted to in the treatment of the insane.

It is a well established fact, that throughout Europe and the United States of America, the appointments to the offices of physicians to insane institutions, are never confirmed without the strictest inquiry into the qualifications of candidates, extending not only to their practical acquirements in every branch of medicine, &c., but to their experience in the treatment and management of the insane; and when we take into consideration the prudence, skill, and tact, which are called for in removing sources of disquietude, in presenting fresh motives of action, and in directing the thoughts of the patient from himself and his disorder, into other channels and to other objects, and thus permit the power of self-restraint the opportunity of developing itself, we cannot certainly but appreciate the exaction of the highest moral and scientific qualifications for the office.

Even the importance of the duties performed by attendants on the insane, in connexion with proper moral treatment, renders their selection and superintendence a task of considerable difficulty; indeed, as a celebrated psychologist observes, "the moral and intellectual qualities to be desired, though not always to be attained in all who come in contact with the insane, are of no ordinary kind." In their general character, they most nearly resemble those required in an instructor and guardian of youth, and though they are perhaps of a still more peculiar description, and require the union of great kindness of heart and of manner, with decision of character and firmness of conduct; at all events, in the language of the poet Coleridge, it may be said with as much propriety to the one as to the other—

"Love, hope, and patience, these must be thy graces,
And in thine own heart let them first keep school;"

and it may be added, in allusion to a certain public exhibition of lunatics, "take no pleasure in the folly of an idiot, nor in the whims or fancies of a lunatic; make them the object of thy love and pity; not of thy pastime. When thou, alas, beholdest them, behold how thou art beholden to Him who suffered thee not to be like them. There is no difference between thee and them, but God's favour."—*Quarle's Enchiridion*.

We need scarcely report here, that insanity is not an individual and separate disease, but embraces a large variety of morbid conditions, which are characterised by symptoms physical and psychical, almost as various as those of all other diseases in the nosology put together; and, consequently, the physician cannot test, as in other uniform and individual diseases, the

efficiency of particular plans of treatment by the numerical method; but how is the physician to discriminate these cases and conditions, and then apply the corresponding and appropriate remedies, unless long experience and observation have qualified him? and, moreover, how will he be enabled, unless by these all important attributions, to determine whether the mental disorder depends upon primary disturbance of the brain and nervous system, or whether dependent on some sympathetic derangement arising from disorder in distant organs, but particularly in those of the digestive, circulating, cutaneous, or uterine systems? It is upon these inquiries that the experienced physician can obtain a correct diagnosis, and by applying the remedies applicable to the disordered bodily functions, acquire one great step towards the restoration of the patient, when at the same time the patient is removed from all external causes of excitement, and suitable moral treatment is resorted to, for the purpose of directing and strengthening the mental associations, and of giving scope for the due exercise of the healthy powers and feelings of the mind, there can be no doubt that he is placed in the circumstances most conducive to recovery.

It has been truly observed by the excellent Dr. Conolly, that "the duty of a physician to a lunatic asylum, is difficult and peculiar, and comprehends a wide and careful survey of every thing that can favourably or unfavourably affect the health of the mind or the body." He has to regulate the habits, the characters, the very life of his patients. He must be their physician, their director, and their friend. The whole house, every great and every trifling arrangement, the disposition of every servant, should be in perpetual conformity to his views, so that one uniform idea may animate all to whom his orders are intrusted, and the result be one uniform plan. The manners and language of all who are employed in the asylum should but reflect his, for every thing done, and every thing said in an asylum, is remedial, or hurtful. By such a system alone can it ever be proved to what extent the cure or the improvement of the insane is practicable.

That he should be a person naturally benevolent is indispensable; and it is extremely desirable that he should possess an almost inexhaustible patience. The qualities to which, of old, much importance was attached,—a commanding stature, a stern manner, a fierce look, a loud voice—have become either unnecessary, or positive disqualifications. Threats or reproofs, seconded by these attributes, may terrify the patients, but they loosen the bonds of affection, and generate

feelings which will burst forth into expression in the next paroxysm, or revengeful designs, which will wait their time; even remonstrances, to be successful, must be calm and carefully timed, being addressed to the afflicted rather than the faulty. If sickness lays open all the delusions of life, madness often shows all human weaknesses magnified, and they must be viewed with never failing charity, at no time forgetful that the dispositions so exhibited are impaired and deformed by insanity. The good feelings of the insane are often disordered—seldom destroyed—control over them, and over the propensities is often lost—the will is nowise consenting. The illustrious Pinel, who well and intimately knew them, says, "I have no where met, except in romances, with sonder husbands, more affectionate parents, more impassioned lovers, more pure and exalted patriots, than in the lunatic asylum, during their intervals of calmness and reason;" "and all my own experience," says Dr. Conolly, "confirms this valuable testimony; and to persons retaining so much feeling, all severity must be misapplied."

If the authority of the physician is properly maintained, a task, which would be irksome and insupportable in other circumstances, becomes less difficult and produces solid gratification. His labour is considerable, but the object is great and good, and the effects are real and appreciable. At their various occupations, he sometimes sees and cheers them. After the labours of the day, he converses with them, and helps to dissipate the gloom of their evenings; he often sits awhile by the side of the irritable and desponding until he has soothed them. He visits those who are sick, or disturbed, or meditating death. Resolved, therefore, to make the asylum a place where every thing is regulated with one humane view, and where humanity, if any where on earth, should reign supreme, the resident physician must be prepared to make a sacrifice of some of the ordinary comforts and conventionalities of life. His duties are peculiar, and apart from common occupations; his society, even, must chiefly consist of his patients; his ambition must solely rest on doing good to them; his happiness, on promoting theirs. None but those who live among the insane, can fully know the pleasures which arise from imparting trifling satisfactions to impaired minds; none else can fully appreciate the reward of seeing reason returning to a mind long deprived of it; none else can fully know the value of diffusing comfort, and all the blessings of orderly life, among those who would either perish without care, or each of whom would, if out of the asylum, be tormented, or a tormen-

tor. Constant intercourse, and constant kindness, can alone obtain their entire confidence, and this confidence is the very key-stone of all successful management.

Thus living, and thus occupied, the resident physician will learn to love his people, with all their infirmities, which are their afflictions. The asylum is his world, the patients are his friends; humble, but not without even delicate consideration for others; wayward, but not malignant, except when cruelty exasperates them; capricious, but not ungrateful; distrustful, but to be won by candour and truth; disturbed and grievously afflicted, but not dead to some of the best and purest affections. He will almost regard his patients as his children; their cares and their joys will become his, and, humanly speaking, his whole heart will be given to them.

26th July, 1848.

(To be Continued.)

ART. XLVII.—*Tracts on Generation.* By T. L. G. BISCHOFF, Professor of Physiology, Giessen. Translated from the German by C. R. GILMAN, M. D., Professor of Obstetrics, &c., College of Physicians and Surgeons, New York; and THEODORE TELLEKAMPF, M. D., Gebhard Professor, Columbia College.

This is the first number of a series, proposed to be published on embryology, in the investigation of which Professor Bischoff has taken an important part, and, in the tract before us, seems to have established the truth of a fact hitherto supposed uncertain. It would be a work of supererogation to lay before our readers all the opinions of embryologists on the characters of the Graafian vesicle and corpus luteum; let it suffice to say that the ovule was observed in the fallopian tube by De Graaf in 1668, an observation confirmed by Dr. Haughton and Mr. Cruickshank; but Steno first pointed out the analogy between the, at that time, so termed testes muliebres and the ovaries of fishes—"non amplius dubito (he writes in *Elementorum myologiae specimen*) quin mulierum testes ovario analogi sint;" and De Graaf, following in his steps, more boldly avers—we may be pardoned for giving his own words—"ova in omni animalium genere reperiri confidenter asserimus, quandoquidem ea non tantum in avibus, piscibus tam oviparis quam viviparis, sed etiam quadrupedibus ac homini ipso evidentissime conspiciantur." As, however, the ovule was not discovered in the Graafian vesicle, its presence in the tubes was supposed to be due to its fecundation by the semen, and it was not till 1827, we believe, that Von Baer, now at St. Petersburg, satisfactorily ascertained its situation and existence in what may be termed

its receptacle, namely, the Graafian vesicle; and now arose another doubt, admitting the pre-existence of the ovule in the ovary, is its discharge into the tube the effect of the concurrent action of coition and its maturation—or is it, solely, the result of the latter, and totally independent of the former? Up to a very recent date—till the investigations of Lee, Patterson, Jones, Negrier, Gendrin, Raciborski and Pouchet, were made public, the prevailing idea was that an ovule was never discharged from the Graafian vesicle, and that, consequently, a corpus luteum was never formed without actual and effective intercourse; but the tract of Dr. Bischoff, in detailing numerous experiments on bitches, ewes, sows, rabbits, rats, &c., made with great care and dexterity, and in describing the condition of the ovaries of four young women, in whom there was indubitable evidence of menstruation at the time of death—proves, we believe, beyond a doubt, that the "periodic maturation and discharge of ova are in the mammalia and the human female, independent of coition, as a first condition of their propagation." His first experiments were made on animals with which coition was permitted while in heat—a pre-requisite to fecundation,) but precautions were at the same time taken to prevent the actual contact of semen with the ova—by extirpating the whole, or excising parts of one or both of the uteri, by putting ligatures on them, &c. &c.; in every instance every change in the ovary and ova was produced as in the normal state, the vesicles swelled and burst, corpora lutea were formed, ova were detached, passed into the tubes, and were there discovered in number corresponding to the corpora lutea; but as fecundation,—the action of the semen,—had been prevented, subsequent development of the ova was arrested, they retrograded, passed through a process resembling liquefaction, and were discharged effete. Another observation which Dr. Bischoff made, still more decidedly exhibits the independence of the action of coitus:

"With the intention of ascertaining to what point the male semen penetrates in bitches at the time of coition, I had kept a strong, healthy young bitch, which had never been covered.—Since all depended upon my knowing, with absolute certainty, the time of the first coition, I kept her in my own house and watched her carefully. In the beginning of June, 1843, I observed that she was near the time of heat, the dogs began to follow her eagerly, and blood was discharged from the vagina; on Friday, June 9th, she did not allow herself to be covered. I then chained her up and isolated her strictly till the 11th, at three-quarters past one, when I put a dog to her, and she was covered for the first time. That this was a first coition was evident by her resistance and cries. As soon as the coition was over, I extirpated the left uterus, ovary, and tube, and closed the wound by suture. I first examined the uterus, and found it quite full of spermatozoa in active motion. I intended next to examine the tube to find whether the semen had penetrated into it, but while preparing it, on laying bare the ovaries, I saw, to my astonishment, that the ova which I had certainly expected to find in the Graafian vesicle, had been already discharged from the ovary, for

there were five small openings on the ovary, from one of which a little red mass projected; five Graafian vesicles had, therefore, already burst. The formation of the corpora lutea had even made some progress, commencing at the base and on the walls of the follicles; they even presented a considerable cavity filled with limpid serum, in which, however, no ovum was contained. It was now apparent to me how such a state of things had possibly led former observers, who were ignorant of the ovule, to the belief that the follicles were not yet opened. I gained at once the full conviction that they had opened, by finding the five ova near each other in the tube, about two inches from the fimbriae. Nothing new resulted from their investigation; they had, in every respect, the characteristics which I had already seen in ova at this period of their development, and were entirely identical with the perfectly mature ovarian ovule. I looked in vain throughout the whole tube up to its uterine orifice, for spermatozoa; nowhere was a single one to be seen, and I spent so much time and care in this search, that I venture to assert most positively that the semen had not yet entered the tube. Next morning, at 10 o'clock, twenty hours later (within which time I had, in my former observations, usually found that the semen reached the ovary), I ordered this bitch to be killed. The right ovary showed five small openings, and five corpora lutea farther developed, and in addition quite a large Graafian vesicle, not yet ruptured; the tube contained five ova, which had progressed beyond its middle, and were several lines apart. Three of them were quite normal in their condition, and similar to those of yesterday, but two were plainly abnormal and abortive, the zona indistinct, the discus proligerus incompletely developed, the vitellus a small irregular mass of yolk granules. I now found spermatozoa in the tube, partly in motion, partly not; they had, however, penetrated not more than three lines beyond the uterine orifice. The whole remaining portion of the tube contained none, nor was there any vestige of them upon or around the ova; *the ova had evidently not been fecundated.*

I believe that this observation incontestably proves, that the ova, when matured, leave the ovary and penetrate the tube, without any influence of the coitus. That it had not taken place before the time when I observed it, may be considered as certain, in view of the great care that had been taken; that the ova had been discharged by any influence of the coitus cannot for a moment be admitted, because,

1st. It is certain that coition does not always produce this effect, as I myself have found that after coition had been frequently repeated, the Graafian vesicles were still closed, and,

2d. As it cannot be imagined that the ova had, in the short space of a quarter of an hour, passed over two inches of the narrow Fallopian tube, since it requires, as we know, eight days to pass the other two or three inches. If, therefore, quite independently of coition, the ova actually leave the ovary, and pass, unfecundated, into the tube; and may remain unfecundated after a period of twenty hours—we are first to inquire how this agrees with my former observations, in which I found in bitches six, eighteen, or twenty hours after the first coition, the Graafian vesicles still closed, and the semen then penetrated through the whole extent of the tube, and even upon the ovary? The answer of these inquiries evidently is, that when the ova are mature, fecundation is possible within certain limits of time and space. It depends, as it appears, on the peculiarities of the animal, and on the occurrence of opportunity, whether coition is consummated while the ova are still in the ovary or not till they are already detached, and have entered the tube. Were animals placed in perfectly natural circumstances, and opportunity offered for coition, it appears probable that the sexual instinct would exhibit itself before the ova were discharged. If coition be at that time consummated, the semen may penetrate through the tubes to the ovary, and this, as my former observations have shown, may take place in twenty hours. Other bitches admit the dog later, or, perhaps, opportunity is wanting, the animal being, as in the case above detailed, locked up,—then the ova are none the less detached, and may even after that, if coition take place, be fecundated; how long this is possible, I cannot say with certainty; but as bitches generally admit the male for the space of eight days, and as the first manifestations of development in the ovum, the division of the yolk, begins in the lower portion of the tube, where they are met with about the seventh or eighth day, it ap-

pears that this is the limit within which fecundation of the ovum is possible in the bitch."

Subsequent experiments were made, and these without the concurrence of intercourse, and at the hazard of making our extracts too lengthy, we reproduce them in the author's own words.

"On the 4th January, 1844, I removed the genitals from a sow, which had already for forty-eight hours shown the strongest signs of heat, but had not been put to the boar; I found that the Graafian vesicles had not yet ruptured. Upon both ovaries there were, however, quite a number of these, strongly developed and remarkable for the existence of large vessels, and a state of sanguineous congestion. Although none of these vesicles were yet ruptured, I removed from one of them, which I had detached from the ovary and opened upon a plate of glass, an ovule; it was, as usual, surrounded by the cells of the disk, which were still round and not at all drawn out into fibres. The diameter across the zona was 0.0060 inch. The vitellus, which consisted for the most part of pretty large fat globules, did not entirely fill the cavity of the zona.

After I had removed the cells of the disk with a needle, and had placed the ovule flat upon a plate of glass, it had increased in diameter to 0.0068 inch, and now completely filled the interior of the zona, while, at the same time, its elements were somewhat spread, and there appeared upon one point of its periphery a clear round spot, which those familiar with it would recognise as the germinal vesicle, although its margin, being covered with yolk granules, could not be defined.

During the examination, a slight pressure crushing the ovum, the germinal vesicle with its germinal dot passed out; the latter was of considerable size, but by no increase of the magnifying power used, could any further details of structure be made out.

This animal had evidently been killed at too early a period, at a time when the progress of the heat had not gone so far as the opening of the Graafian vesicle, and the discharge of the ovule.

A few weeks earlier, on the 4th December, 1843, I had examined the genitals of a sow which had from youth been kept from the boar. The owner assured me, that he had perceived several times before, indications of her being in heat, and that these had existed for some time before she was killed.

As to dates, however, he could not give the necessary particulars. On examining the ovaries, fresh corpora lutea were found on both.

On the right, eight, each of the size of a large pea, and protruding consequently beyond the surface of the ovary.

Their color was dark, brownish red. In all, at their most prominent point, a small spot of vivid red was perceived, but a distinct opening was no longer to be seen; yet when the tunica propria of the ovary, with its scrous covering, was detached from the surface of such a corpus luteum, then it became evident that it was penetrated by a small opening just at the red spot.

The corpora lutea consisted of a superficial layer of fleshylike granulations about a line thick; as they are always thus developed on the inner surface of the Graafian vesicle, in its transition to a corpus luteum.

This layer inclosed a considerable cavity filled with a dark red coagulum of blood, which was closely adherent to the granulations. In none of them could I discover an ovule.

On the left side there were two corpora lutea of the same description, and near them two others, much larger, almost transparent and of a shining red color. The small red spot appeared on their most prominent points. The superficial layer was much less developed than that of the others; it contained a translucent reddish coagulum, and also a quantity of uncoagulated fluid, which, however, coagulated on being poured on the plate of glass and exposed to the air.

Soon afterwards, I received the genitals of a young sow which had never been pregnant. I was sure that she had been kept apart for thirteen days. Five days before, the first indications of heat manifested themselves, and after these had already begun to decline, the animal was killed on the morning of the fifth day.

The first glance at the ovaries satisfied me that the ova were already discharged, for on one of them seven, on the other six, fresh corpora lutea were developed; no opening was found in them, nor did they present any longer the large cavity filled with

blood or serous fluid; but the Graafian vesicles were already as usual quite filled with granulations; and the place of rupture could easily be distinguished by its deeper redness.

I proceeded at once to examine carefully the tube, eleven inches long, with its numerous folds, particularly the first half, by removing the epithelium from portions of it, and examining it under a simple microscope. I succeeded in finding ten ova in the lower portion, about two to four inches from the uterine orifice. They were at some distance apart. When observed under the microscope, they appeared in general similar to ovarian ovules which had lost the discus proligerus. Their diameter was 0.0064 to 0.0068 inch=1.13 line=1.6 millimeter nearly. Not a vestige of albumen was found around the zona, which formed the single thick envelope of the ovum; with most of them it was 0.0005 inch=1.17 line or 1.8 millimeter. The yolk in most of these ova did not completely fill the interior of the zona, and varied in its diameter from 0.0040 to 0.0054 inch=1.51 line=1.9 to 7.50 millimeter.

In its composition the same larger fat globules were found, which distinguish the ovarian ovule of the sow, but they were generally unequally distributed through the yolk, so that the latter had an irregularly spotted appearance. The outline of the yolk was in this instance so sharp, that it might easily have led one to believe in the existence of a peculiar yolk membrane. Especially was this the case in certain positions of the microscope. This has happened to Doctor Mayer, in regard to the ovum of the sow; but the same precautions to which I have already referred in regard to the ovum of the ewe afforded, in this instance also, full proof that no such membrane existed.

Of the germinative vesicle I could discover nothing; but in some ova between the yolk and zona the pale granule was again found, which I supposed to be the nucleus of the germinative vesicle, the germinative dot, as I have before stated.

Among his arguments he introduces a fact a little known, relating to the castrated women of India. It is communicated by Dr. Roberts, in his travels from Delhi to Bombay.

"The individuals he examined were about twenty-five years old, of large size, quite muscular, and in full health; they had no mamme, no nipple, no hair on the pubis, (the orifice of the vagina was completely closed, and the pubic arch so narrow that the ascending ramus of the os ischium, and the descending ramus of the pubis of the opposite sides, came almost in contact. The whole pubic region showed no deposit of fat, and the nates were not more developed than in males, while the rest of the body had the usual quantity of fat. There was no trace of menstrual secretion, nor any discharge vicarious to it; no sexual appetite."

And he adds, that recent anatomical proofs have been furnished of these induced deviations from the normal type.

The latter part of this pamphlet is taken up with claims to priority in the views advanced. The author seems inclined to give credit to those who have laboured in the same field—to Duvernoy, to Raciborski, W. Jones, Professors Lee, Patterson, Negrier, and Gendrin; to Mr. Pouchet, especially, does he give great praise, who has been second but to himself. Pouchet "made the matter in the highest degree probable, but he has not proven it." Pouchet showed "that the ova were matured in the ovary during the heat" (and menstruation); Bischoff "that they entered the tube."

We have purposely, though such was not our original intention, made our notice of this "opusculum" longer than is our wont. Its originality, its deep interest, and its recent date, have caused us to be anxious to give our

readers the latest views on a subject in which all are socially, and medical men specially, concerned.

ART. XLVIII—Description of an Apparatus for the Automatic Enregistrement of Magnetometers and other Meteorological Instruments by Photography. By CHARLES BROOKE, M.B., F.R.S., F.R.C.S.E., from the *Philosophical Transactions*. Part I., for 1847. London: R. & J. E. Taylor; 4to.

The method proposed by Mr. Brooke, based upon photographic principles, and therefore easily recognised, effects a most important improvement in the registration of the perturbations of the magnet, whether in the form of oscillations, or suspensions, or shocks of magnetic force; and is applicable to the barometer, thermometer, or, indeed, any meteorological instrument, whose variations it is of moment to measure and indicate at the instant of occurrence. The plan proposed is now in the course of adoption at the Meteorological Observatory, Toronto, and has been employed, successfully, at the Observatory in Greenwich and various other stations; and we have little doubt will be soon in general use in foreign countries.

PRACTICE OF MEDICINE AND PATHOLOGY.

On the Internal use of Turpentine Oil in Cases of Haemorrhage. By I. Percy, M. D., Lausanne, Switzerland.—The author, after noticing the fact that several writers—Adair, Nichol, Johnson, Warneck, Copland, Ashwell, and Pereira—have spoken of the efficacy of the essential oil of turpentine in hæmorrhagic diseases, observes that this remedy seems nevertheless to be little used by practitioners. In the cases in which he first made trial of it, hæmaturia of two years' standing, in an old man of eighty, was stopped in twenty-four hours by eight drops of oil of turpentine, and did not return. He has since used it in different cases of hæmorrhage, and always with a favourable result. The cases in which its use is indicated are those of passive hæmorrhage. It must not be employed in cases where there is an active determination of blood, and where the pulse is full. When the discharge of blood is the consequence of organic disease, as of disease of the uterus, or of tubercular disease of the lungs, the action of the remedy is not so efficacious; but the author has seen a case of scirrhus of the womb, in which hæmorrhage was for some time stopped by this remedy. The author has found the action of turpentine oil very rapid, an effect being manifest in a few hours, often after one small dose. In order better to ascertain its power he used it alone, without having recourse to local astringents or cold applications, where he could do so without fear of endangering the life of the patient. He has used it most frequently in cases of menorrhagia and epistaxis; but he mentions, that it appears to him to be particularly applicable in the cases of hæmorrhage attending typhus. He noticed the fact that turpentine exerts different actions on the body according as it is taken in large or small doses, being more readily absorbed in the latter case; and he remarks, that as its beneficial action in cases of hæmorrhage must depend on its being absorbed, the inference would be drawn, that the doses in which it is given in such cases ought to be small.

His experience confirms this conclusion. He has always found a dose of from eight to thirty drops sufficient. The best vehicle for it is almond emulsion, with a little gum arabic. When there is pain in the abdomen, a few drops of laudanum may be added.—*Dublin Medical Press.*

On the Hygienic Influence of Cutting the Hair.—Medical men are occasionally asked whether it is proper to cut the patient's hair; whether, in fact, this operation has any influence upon the health. M. Fredericque resolves the question by giving the following illustration:—

A little girl, aged three, of good health in general, had her hair grown excessively long in the course of a few months. She was a beautiful child, but had latterly wasted without any apparent cause, becoming dull and apathetic, losing her appetite and strength without any organic lesion being discernible. There was an anæmic bruit in the carotid. She was placed upon a tonic regimen, with chalybeates, but without deriving material benefit, until her hair was cut short, at the suggestion of a friend, from which time she rapidly gained strength.

It would appear from this case that the economy had suffered a loss in the expenditure of blood necessary for the secretion of the abundant crop of hair. M. Fredericque considers that it is the formation of the colouring matter which chiefly exhausts the blood, as this is formed at the expense of the hæmatosine.—*Annales de Societe d'Emulation; Revue Medico-Chirurgicale.*

SURGERY.

On Choroiditis or Inflammation of the Choroid Membrane of the Eye. By Dr. JACOB.—In treating of the inflammations of the eye affecting particular structures only, and not extending to others, or involving the entire eyeball, it becomes necessary to consider whether the choroid is liable to be so attacked. I have endeavoured to lead the practitioner to the belief that in the more frequent or usual inflammation of the eye, commonly called *iritis*, the whole organ is, if not from the commencement, at least in the progress and sequel, engaged; but I have also endeavoured to explain how far some of the component parts may be the seat of inflammatory action without corresponding disease of the rest. That the choroid in all general inflammations of the eyeball participates in the altered vascular action cannot be doubted; but whether it is ever inflamed alone, and without extension of the disease to the parts in contact and continuation with it, is not so certain. That there is a modification of inflammatory action, called choroiditis, presenting such peculiar characters as to entitle it to be considered of distinct specific nature I admit, but I doubt the correctness of the inference that its seat is the choroid exclusively. It may be said that this is a difference about words, a dispute as to a name; but when it is recollected that the name given to a disease necessarily indicates its character, and thereby influences its treatment, the question assumes importance. However this may be, "*choroiditis*" is one of the forms of inflammation of the eye now very generally admitted by writers, teachers, and practitioners: Dr. Mackenzie of Glasgow, especially, has insisted upon its claims to distinct specific character, and has given so correct a description of the origin, progress, and termination of the disease, that I cannot do better than introduce it here. He calls it, however, *sclerotic choroiditis*, which proves that he does not consider the disease to be confined to the choroid exclusively:—

"As the choroid coat is completely hid from view, and exercises but a subsidiary function, it is not to be wondered at, that while inflammation of every other part of the eye has been accurately discriminated; that of the choroid has hitherto scarcely attracted attention. In an early stage, choroiditis is one of the least striking of the ophthalmia; when far advanced, the signs of disorganization which attend it are more remarkable than those of vascular action; and while the effects are too serious not to have attracted attention, and even received particular names, the

cause of these effects, and the seat of the original disease, have in general escaped observation.

"I have already had occasion to mention that iritis is occasionally attended by inflammation of the choroid. Were we to adopt the common notion, that the iris is a continuation of that membrane, we might be led to conclude, that choroiditis and iritis should always go together. Perhaps, in some degree, this may still be the case. At the same time, from the principal arteries which nourish these two parts being quite distinct in their course and distribution, the idea of a separate iritis, and separate choroiditis, is *a priori* rendered probable.

"For some time, the separate existence of choroiditis was with me rather a matter of speculation, and a conclusion from analogy, than a fact ascertained by observation. I am now convinced, however, that the choroid is sometimes the seat, almost quite independently, of inflammation; that in certain cases of ophthalmia, it is the focus of the disease, and that the neighbouring parts may be as little affected when that is the case, as the sclerótica is in iritis, or the iris in scleroticitis. That it is of importance to distinguish the disease which I am now about to describe, will appear evident when we consider its dangerous nature. Its symptoms, as we shall immediately see, are very different from those of any other ophthalmia; and although ultimately the whole eye may be involved by inflammation commencing in the choroid, yet choroiditis, in the early stage exists without any signs of disease in the iris, and without any other effects upon the sclerótica and retina than those which must necessarily arise from the pressure of an inflamed and swollen membrane, placed in contiguity with other membranes more or less susceptible of suffering from that pressure. I consider choroiditis, therefore, as completely a primary and distinct disease. At the same time it must not be overlooked that choroiditis is apt to be superadded to other ophthalmia, and especially to scrofulous corneitis and iritis, and to arthritic iritis.

"The subjects of choroiditis are generally adults, and more frequently females than males. Those of scrofulous constitution are more subject to it than others. I have very rarely seen it in children.

"**Symptoms: Redness.**—One or more of the recto-muscular arteries are enlarged, and running towards the edge of the cornea, are seen to end there in a broad bush of small vessels. There is scarcely ever any general redness over the eyeball, or much inflammation of the conjunctiva. The portion of the sclerótica subjacent to the enlarged vessels frequently presents, in the early stage of the disease, a thickened and fleshy appearance. The conjunctiva also appears thickened. It is probable that, even in this early stage, a preternatural adhesion takes place between the sclerótica and the choroid.

"**Discoloration of the White of the Eye.**—If the disease is checked before any other symptoms manifest themselves than those already mentioned, the portion of sclerótica which was inflamed, frequently continues to appear thickened, but gradually assumes an opaque white colour: but if the disease proceeds, the exterior tunics of the eye, by and by, become attenuated, so that the choroid shows its dark colour through the sclerótica, which therefore appears blue or purplish. This is one of the most remarkable symptoms, and takes place in many cases at a very early period of the disease, the blueness shining obscurely through the inflamed sclerótica and conjunctiva. We often observe one part of the sclerótica thickened and loaded with enlarged vessels, and another part thinned so as to allow the choroid to shine through. The degree of discoloration, is different, according to the severity and duration of the attack, being at the early stage merely perceptible on comparing the diseased with the healthy eye, or the diseased side of the eye with the healthy side, while in advanced cases it amounts to a deep blue. About the eighth of an inch behind the edge of the cornea is the most frequent situation of the discoloration, which generally occupies only one side of the eye, but sometimes surrounds the cornea completely. It is at first narrow in extent, but afterwards becomes broader.

"**Sclerotic-choroid Staphyloma.**—After continuing for a time discoloured merely, the part affected protrudes. The sclerótica and choroid having become preternaturally adherent, and being softened in their texture from the inflammation they have undergone, lose their supporting power. Atrophied and thinned, they cannot sustain the contents of the eyeball, but give way and become protruded. As the previous redness and consequent thinning

of the sclerótica commonly occupy only one side of the eyeball, so does the protrusion in question. The protrusion is generally near the cornea, as if the corpus ciliare was the seat of the disease, and more frequently above, or to the temporal side of the cornea, than below, or to its nasal side. In some cases, there is only one protrusion, which may enlarge to the size and prominence of a filbert; in others, a number of tumours, of various sizes, surround the cornea; while, in a third set, the whole eye is enlarged, and the sclerótica attenuated in its entire circumference. Such tumours, or protrusions of the choroid, have received the names of *circophthalmia*, *varicositas oculi*, *hernia choroidea*, *staphyloma corporis ciliaris*, and *staphyloma sclerótica*. They generally present numerous varicose vessels ramifying over them.

"The front of the eye, however, is not the only seat of staphyloma of the sclerótica and choroid. Scarpa tells us that he had never met with any tumour or elevation of the sclerótica on its anterior surface, resembling a staphyloma; but that he had twice happened to meet in the dead body with staphyloma of the posterior hemisphere of the sclerótica.

"**Displacement of the Pupil.**—Although the iris is seldom affected with inflammation in choroiditis, the pupil, in many of the cases which I have witnessed, underwent a remarkable change of place. The iris is always narrowed towards the portion of the choroid which it affected, and in many instances, the pupil is observed to have moved so much out of its natural situation, as to be almost directly behind the edge of the cornea. Upwards, and upwards and outwards, are the directions in which the pupil is most frequently observed to become displaced. It occasionally continues small and moveable, in other cases it is immovable, but not dilated; in very severe cases it is greatly enlarged, the iris having entirely disappeared at that part of the circumference towards which the displacement of the pupil has happened. The pupil does not return to its place, even although the other symptoms of choroiditis are subdued. We sometimes observe the iris, in cases of choroiditis, to be of a slate colour, and the pupil to be more or less filled with lymph. These changes denote the previous existence of iritis.

"**Opacity of the Cornea.**—is not a necessary, although a frequent attendant on choroiditis. It is generally the edge of the cornea nearest to the portion of affected choroid which becomes opaque, so as to resemble part of a broad arcus senilis; or as if the sclerótica were intruding on the cornea, the rest of the cornea remaining perfectly clear. In other cases, there are pretty extensive, but very irregular spots of whiteness, more the effect apparently of interrupted nutrition than of inflammation. In some cases I have observed the cornea smaller than natural, but more frequently it not only becomes almost quite opaque, but partaking in the staphylomatous degeneration of the neighbouring sclerótica, it even undergoes a degree of dilatation, so as to become considerably broader and more prominent than in its natural state, and scarcely distinguishable from the attenuated sclerótica. I have sometimes thought that in such cases, a watery effusion might have separated the ciliary ligament, so as to lodge between the cornea and sclerótica externally, and the iris and choroid internally. From the affection of the cornea alone, in such cases, independently of the interior changes of the eye, the patient's vision may be almost or altogether lost.

"In consequence of choroiditis, the eye may enlarge so much as to protrude from the orbit to a very considerable degree, without much inflammation of the sclerótica and conjunctiva, these tunics being merely thinned by the pressure of the distended choroid. After a time, however, the eye, in this state of exophthalmos, is apt to suffer from external inflammation, in consequence of, being, but imperfectly protected by the lids, or it may be in consequence of cold or mechanical injury. When the inflammation, thus excited, runs to a great height, the conjunctiva becomes chemosed, puriform fluid is deposited behind the cornea, or between its lamellæ, the eye bursts, continues to swell and protrude still more, assumes a fungus appearance, bleeds profusely, and being productive of great pain and deformity, evidently requires to be extirpated.

"**Intolerance of Light and Epiphora** generally attend this disease in a considerable degree.

"**Pain.**—This varies much in different individuals. When there is as yet no protrusion, the pain is moderate; when the sclerótica is much pressed and distended, and especially when this

takes place suddenly, and is attended with considerable increase of redness, the pain in the eye becomes severe, and sometimes furious. Hemiplegia is also present, affecting principally the top of the head, the high part of the temple, and the cheek. It is not strictly circumorbital, nor is it strikingly nocturnal.

"**Vision** is variously affected in choroiditis. In some instances, the very first symptom complained of is dimness of sight. The patient generally complains of photopsia, and not unfrequently of iridescent vision. Hemipopia, all objects to one or other side of a perpendicular line, or above or below a horizontal line, appearing dim, all objects appearing confusedly, and as if double, even when viewed with one eye, are symptoms which not unfrequently distress the patient long before the redness or blueness of the eye attracts attention. If the disease goes on, we sometimes find that total blindness ensues, even when the choroid appears but partially affected; while in other cases the whole eyeball is evidently enlarged and discoloured, and yet a considerable degree of vision is retained.

"**Recovery** is always slow. If the disease has gone to any considerable length, it is scarcely ever completely removed. The vestiges of it are in general permanent, even after it has been completely checked in its progress. In many cases we may reckon ourselves fortunate if we arrest the disease. Yet it sometimes happens that the cure proceeds to a degree beyond our expectation. I attended a gentleman who many years before had lost all useful vision in the left eye from this disease. The right was now attacked. Both pupils were greatly displaced; the visible arteries of the right eye were much dilated, and the sclerótica at different places considerably attenuated; the left eye was enlarged, of a pretty deep blue colour, and a great part of the cornea opaque. By bloodletting, counter-irritation, and other remedies, the disease was arrested in the right eye, and very unexpectedly the left eye recovered to such a degree, that he was again able to read with it an ordinary type."

The "redness" which Dr. Mackenzie describes above as the first and most prominent symptom is one of the most characteristic features of the disease. He says, "one or more of the recto-muscular arteries are enlarged, and running towards the edge of the cornea, are seen to end there in a lash of small vessels," but I think the practitioner cannot rely on this as a constant appearance to guide him in his diagnosis. The redness probably always commences in the direction of these arteries, but it does not always appear confined to their course. The sclerotic vascularity in this disease, in fact, differs from the usual sclerotic vascularity of iritis or general inflammation of the eyeball. Instead of being produced by numerous vessels regularly and uniformly converging towards the margin of the cornea, and there forming a pink zone, it is the effect of more insulated and circumscribed vascular enlargement. It appears at first, to use more common language, as a small pink patch in the white of the eye, near the cornea, about a quarter of an inch in diameter, while the remainder of the sclerótica retains its natural whiteness, or is marked by one or more patches of a similar nature. The red patches soon become elevated, and assume a thickened or fleshy appearance, the conjunctiva often participating little in the inflammatory action. It should not, however, be forgotten, that a vascular patch answering to this description often remains after the disappearance of a pustule or pimple in common pustular ophthalmia, and may be mistaken for the change which I am describing; but as it belongs to the conjunctiva, it may be moved over the sclerótica by drawing that membrane on one side, and thus be distinguished. As the disease advances, these vascular patches become diffused and mixed with each other, until at length the whole white of the eye, or exposed part of the sclerótica, becomes red, although not presenting the usual vascular arrangement observed in common iritis. Distinct vessels are not visible converging to the cornea, but a general redness or stain, more intense in some places than in others, and more of a light purple tint than the florid or scarlet vascularity of more general inflammation.

As the disease advances, the change in structure is more conspicuous. The sclerótica loses its natural semi-opaque fibrous condition, and becomes thin and transparent, allowing the dark colour of the subjacent choroid to become visible in dark spots or patches, which ultimately become elevated into blue or black prominences or projecting tumours; a kind of hernia or protrusion of the latter membrane from want of the support of the sclerótica thus disorganized. In treating of inflammation of the eye in general,

I alluded to this effect upon the sclerotic, and stated that it was not confined to the peculiar form or variety called choroiditis, but that it often took place in the other species of inflammation. It may, however, I think, be admitted, that it occurs more frequently in the disease now under consideration, although it may take place in any form. In fact, I consider it one of the inevitable consequences of inflammation implicating the sclerotic and choroid of whatever character, when that inflammation is protracted or chronic, or when it is renewed in frequent relapses. I believe also that it is more liable to occur in persons of scrofulous habit or feeble frame, and hence its greater frequency in this so-called choroiditis which is seen generally in persons of such constitution. In treating of inflammation of the cornea, I also alluded to this effect of inflammation upon the firm or supporting structures of the eye, and insisted upon the fact that this is one of the inevitable consequences of continued inflammatory action upon such parts, and that it is not to be attributed to any physical force or pressure, but to the destruction of the original organization or peculiar vital condition of these membranes. It is not in the inflammation of the eye alone that this alteration in the nature of parts takes place, it is the fertile source of permanent defect and deformity in other parts of the body. When describing the progress and consequences of scrofulous inflammation of the eye, I directed attention to the changes in organization and form produced by it, and mentioned that they are sometimes so great and peculiar that they are liable to be mistaken for malignant disease. In the inflammation now under consideration, the same mistake may be made by those who have not frequently seen its effects. The general enlargement of the whole eyeball, deformed by irregular black prominences of various shapes and dimensions, projecting from a leaden-coloured sclerotic, crowded with tortuous blue veins, affords an appearance which even experienced surgeons might suspect to be fungus hematodes, were it not that the history of the case, and the fluid nature of the contents, convinces them to the contrary.

As this disease proceeds, other structures of the eye, besides the sclerotic and choroid, become engaged. The cornea, at that part in its margin which touches the original red patch or subsequent dark tumour, becomes opaque, and is some time thin, and permeated by red vessels, so as to form part of the blue prominence; and when several of these take place, they coalesce all round the margin so completely, that it forms the centre of one general tumefaction, losing its original correct curvature, and becoming enlarged in its circumference. This extension of the disease to the cornea, when not accompanied by any considerable formation of separate blue tumours in the sclerotic, but by a general attenuation of that membrane, and uniform enlargement of the eyeball, constitutes the disease called hydrophthalmia. It is remarkable that this extension of the inflammation to the cornea does not induce the general disease of that structure, which has been described under the head of corneitis; the centre of it often remains transparent while all this mischief is in progress.

The iris also partakes of the disease. It does not at the commencement exhibit the appearances observed in any of the forms of iritis; but as the sclerotic yields, and the cornea becomes flattened and enlarged in its circumference, the pupil becomes eccentric or drawn to one side, irregular in form, and incapable of contracting; the colour, also, is changed, and the natural perfect organization disappears. Adhesions are sometimes formed between the margin of the pupil and the capsule of the crystalline lens, accompanied by loss of transparency, and consequent general haziness of the transparent parts.

This extension of the inflammation in this disease from the sclerotic and choroid to the cornea and iris strengthens the conclusion that it is not a mere choroiditis, while the escape of the retina, lens, and vitreous humour, from participation in the malady, proves that it is more or less circumscribed or insulated. It cannot, perhaps, be said that opacity of the lens and insensibility of the retina (cataract and amaurosis) never take place in these attacks; in some, where the primary inflammation is severe and rapid in its progress, they undoubtedly do; but it may with safety be asserted that in many cases the crystalline lens and retina are unaffected. I have often been astonished on observing the comparative perfection of vision enjoyed by patients having the whole eyeball enlarged, and the sclerotic and cornea forming one irregular covering of semi-transparent membrane, spotted with dark patches and blue tortuous veins. This disease, whatever may be

the name given to it, appears in fact like corneitis and inflammation of the membrane of the aqueous humour, to be confined to the anterior part of the organ, and not to extend to the deeper seated parts, except in very violent and destructive attacks.

Loss, or great imperfection of vision is, from the facts above stated, not to be enumerated as a prominent symptom in this disease. In the first stage, when there are no visible proofs of the existence of inflammation except the red patches described, the sight is not much impaired. There may be complaints of a haze or cloud, but none of that alarming loss of sight which accompanies common iritis; and as the disease advances to its most destructive degree, there is no corresponding amount of blindness. Pain and intolerance of light are also frequently so inconsiderable that they do not attract attention as remarkable symptoms, although in some cases they are distressing, and require special care.

Of the nature or causes of this variety of inflammation of the eye, it is not easy to pronounce a decided opinion. It evidently differs in its original condition, progress, and effects from the more frequent and ordinary species. This, as I have already intimated, I am, however, more inclined to attribute to peculiarity of constitution than to peculiarity of the structure supposed to be the seat of the disease. In other words, I do not consider it to be a mere choroiditis, but a destructive disorganizing inflammation confined to the more anterior part of the eye, and including the sclerotic, cornea, membrane of the aqueous humour, and iris. In its nature it is less active, and in its progress less rapid than common inflammation. The redness is not so great, or of the same tint or vascularity, and pain does not so generally accompany it. Hence it is more insidious in its approaches, and by its slow progress more likely to throw the practitioner off his guard. There are exceptions, but this is, I think, the general character of the disease. It is also to be kept in mind that it occurs more frequently, if not exclusively, in persons not enjoying robust or vigorous health, but suffering from languid circulation and defective nutrition, or even scrofulous diathesis. It also is observed at a particular period of life from about fifteen to five-and-twenty; and in females much more frequently than in males. I do not think I have seen it in children, and do not consider the alteration in shape of the eye, or the dark staphyloma of the sclerotic produced by inflammation in persons advanced in life, to be the same disease. It is also a character of this disease to return or relapse, the final destruction of the organ being generally effected in this way rather than by first and single attacks.—*Dublin Medical Press.*

On the Use of Chloroform in Surgery. By M. VALLEIX, Physician to the Hotel Dieu.—[We extract the following communication from a late number of the *Union Medicale*:]

The case of death during the inhalation of chloroform, which has been presented to the Academy of Medicine by M. Gorré, and the discussion to which that communication gave rise, prove, it appears to me, that if the question of etherisation has been perfectly studied experimentally and physiologically, it has not been so practically. I do not see, in fact, any mention of the three stages of etherisation, whether with ether or chloroform; it is only by possessing a perfect knowledge of those stages, that one can practise etherisation with the necessary safety.

I am far from attributing the terrible accident, of which M. Gorré's patient has been the victim, to any defect of attention or observation; it appears to me, as well as to M. Roux, on the contrary, to result, from the details furnished by that surgeon, formerly a very distinguished interne of the Parisian hospitals, that the cause of death must be sought for elsewhere than in the inhalation of chloroform. But it appears to me that many medical men want an exact appreciation of the phenomena produced by chloroform; that the unfortunate case just related is one of a nature to inspire lively fears in those not familiarised to the use of this substance; and that it would be well to take this opportunity to specify the signs which announce the degree of etherisation, and the moment when it should be arrested. If all this can be rigorously determined, one need no longer fear the painful doubt remaining in the mind after sudden death

in the course of operation; and if the moment when we ought to discontinue the chloroform has been well observed, or if the stages are regularly shown, we shall be able to say, with a certainty almost mathematical, whether the death ought or ought not to be attributed to etherisation. If these rules had been well established, M. Gorré would not have proscribed the use of chloroform in so many operations.

For myself, who have employed etherisation in a very great number of painful but slight operations (as cauterization and moxas,) I am not at all disposed to give it up, for I have always been able to arrest its action in time. I am about to give the result of my experience. There is, doubtless, nothing new in what I am about to say, but I believe that there will be found, in the following *exposé* a little more precision than in the usual descriptions; and it is exactly this precision that is important. It is with the employment of chloroform as with the administration of certain very active poisons: we ought, before giving them, to know exactly what phenomena they produce, so as to stop just at the moment when the therapeutical action ceases and the poisonous begins, otherwise we are liable to the most serious results.

Ether and chloroform produce exactly the same phenomena, only the latter acts with an incomparably greater, sometimes an extreme, rapidity. But, even in these latter cases, we may observe three marked stages.

In the first stage, the phenomena of suffocation first show themselves, and then of stupefaction. The patient struggles, but his movements are still subject to his will: thus we often see him carry his hands to the apparatus to withdraw it from his mouth, and push aside those engaged in the inhalation. He still answers questions, and usually complains of a humming noise or sound like the wheels of a water-mill. Sensibility remains.

In the second stage, he can still speak, but he no longer answers questions: he speaks of very different things, which have no relation to surrounding objects; it is a true delirium, absolutely like that of drunkenness. Sometimes there are neither cries, nor songs, nor loquacity; but we notice a phenomenon which is never absent,—it is a stiffening of all the limbs; sometimes, also, violent efforts are made by the patient to escape from those who hold him.

Finally, the beginning of the third period is marked by one or several deep inspirations, and the rapid relaxation of the limbs.

Experience, then, has shown me that while the patient is in the two first stages there is nothing to fear for him; but, on the contrary, when he arrives at the third stage, we must immediately discontinue the inhalation: bad effects may come so quickly at this moment, that we may find it difficult to bring the patient to himself. This occurred to me several times formerly, but not since I have been accustomed to watch attentively for the moment I have pointed out.

What renders this surveillance difficult is, as I have said above, that the progress of the two first stages may be excessively rapid; I have seen it scarcely half a minute.—This time is so short, that one might believe the first stage not yet passed, although the third has already arrived. This is the danger. A very attentive examination is necessary to recognise this point.

I think that medical men who have not yet practised etherisation, ought at first to study these stages from the action of ether. It will occupy them some minutes longer, but they will see the stages succeed each other very distinctly, and they will easily recognise them during the action of chloroform.

It will necessarily lessen the danger, if the operation be commenced before the third period manifests itself. We know that this produces no inconvenience, for if the patients

do cry, they have but a very indistinct consciousness of the pain they undergo; they suffer as if in a dream, and that can have no injurious influences.

As to slight operations, if there be any fear, it is only needful to perform them during the second period; the trifling concern of the patient after the operation—on the contrary, his air of gaiety—prove, in fact, that he has experienced very little pain.

Finally, in great operations, etherisation ought to be confided to some one who will not allow his attention to be distracted by the operation, or it may be well to wait until the beginning of the third stage, and then remove the inhaling apparatus before beginning the operation.

What makes me think that, in the case related by M. Gorré, there was some special cause of death, is this, that insensibility supervened immediately, and while the patient was in the act of speaking, that is to say, in the first stage. Sudden and unexpected death is more frequent than is usually supposed; and not only may it be produced by very slight causes, but it may occur without any assignable cause. MM. Roux and Velpeau have acted wisely in throwing doubt on the fatal action of chloroform in this unfortunate case. The employment of this substance is become more precious, since, by statistics, we have learned that the results of operations are markedly more favourable when they are performed under its influence. We ought only to admit, after the most attentive examination, and after having submitted them to the most severe criticism, those cases which would tend to make us reject from the practice of surgery this, the so precious discovery of our day.

VALLEIX,
Physician to the Hotel Dieu.

From M. Valleix's letter, it appears that the successive stages of chloroform, so thoroughly understood here, have not yet been recognised in France, where this communication will be of service.

M. Valleix's first stage is evidently the combined effect of chloroform too suddenly administered, and of the want of a proper supply of air. It is very seldom observed here that the patient feels suffocated, complains of tinnitus aurium, or attempts to push aside the inhaler. It appears that French inhalers admit an imperfect supply of air, like the early English ether inhalers; and that, in France, the chloroform is given of the full strength at first; hence the sense of choking, and the attempts to withdraw the apparatus.

M. Valleix's second stage corresponds exactly to our second and third stages of chloroformisation. The first, with us, being the stage of excitement; the second, that of intoxication; the third, that in which there is unconsciousness, stiffening of the limbs, and, in most instances, contraction of the pupils. The latter part of this third stage, that of sopor, is the proper time to commence operating.

M. Valleix's third stage is our fourth, being that of complete muscular relaxation, dilatation of pupil, and, in fact, coma; it is, in truth, the stage of danger, and ought only to be reached in attempting to reduce hernia or dislocations.

The successive stages pass gradually one into the other.

If chloroform is to be used in the severe minor surgery of cauterization and moxas, so seldom resorted to here, it is well that the exhibition should only be pushed to the state of semi-consciousness, as M. Valleix advises. This will not, however, answer in dental and minor operations: in minor operations, the patient should be quiet; and in dental surgery, the chloroform must be pushed to the stage of relaxation or that of danger, as the stiffening of the muscles of the jaw must be overcome before the operation can commence—an insuperable objection to chloroformisation in such cases.

M. Valleix, and the French surgeons generally, do not

seem to recognise or bear in mind Dr. Snow's important discovery of the accumulative effects of chloroform.—*London Medical Gazette*.

New mode of Treating Deafness arising from destruction of the Membrana Tympani.—Mr. Yearsley (*Lancet*, July 1), mentions a simple means of remedying the loss of the membrana tympani with which he became accidentally acquainted through the instrumentality of a patient. This consists in inserting a small portion of cotton-wool moistened, into the meatus, and passing it with a probe to the site of the missing tympanum. He relates two very astonishing instances of the improvement in hearing thus accomplished. The remedy is a simple one, and its usefulness or fallacy will doubtless soon be amply ascertained.—*Provincial Medical Journal*.

MIDWIFERY.

Rupture of the Unimpregnated uterus.—M. Gozzo, of Naples, narrates the following extraordinary case:—A woman, aged 34, the subject of dysmenorrhœa, and sterile, examined. The uterus was felt above the pubis, as large at the fifth month, but perfectly destitute of inequalities of its surface. The uterus continued to increase until its fundus reached the xiphoid cartilage; the menstrual discharge was irregular, and followed by considerable leucorrhœa. She was shortly seized with symptoms of intestinal obstruction, from which she was recovering, when she was suddenly seized with collapse and abdominal pain, and died in less than twenty-four hours.

After death the peritoneal cavity was found to be almost filled with pus, mingled with serous fluid and fœtid gas. The uterus adhered to the lateral parts of the abdomen, from the pubis as high as the umbilicus, filling the iliac regions; it was covered by the large omentum. The intestinal surface was irregular, and covered with fungous excrescences and tubercular masses of various sizes and forms, its cavity being filled with a white inodorous pus. The uterine walls were thickened, and contained several small abscesses, some of which were close to its peritoneal surface.

The posterior aspect of the organ exhibited a rent, through which the matter had escaped into the abdomen. An encephaloid tumour was likewise found occupying the lower segment of the uterine surface.—*Archives Generales, March, 1848*.

Medicated Pessaries.—The following are those chiefly used by Dr. Simpson:—

Zinc Pessaries.—R. Zinci Oxidi, dr. j.; Ceræ Albæ, dr. j.; Axungiæ, dr. vi. Miscæ et divide in pessos quatuor.

Lead Pessaries.—R. Plumbi Acet. dr. ss.; Ceræ Albæ, dr. iss.; Axungiæ, dr. vi. Miscæ.

Mercurial Pessaries.—R. Unguent. Hydrarg. Fort. dr. ij.; Ceræ Flavæ, dr. ij.; Axungiæ, oz. ss. Miscæ.

Iodide of Lead Pessaries.—R. Plumbi Iodidi, ser. j.; Ceræ, Flavæ, ser. v.; Axungiæ, dr. vi. Miscæ.

Tannin Pessaries.—Rt. Tannina, ser. ij.; Ceræ Albæ, ser. v.; Axungiæ dr. vi. Miscæ.

Belladonna Pessaries.—R. Extr. Belladon., ser. ij.; Ceræ Flavæ, dr. iss.; Axungiæ, oz. vi. Miscæ.

—*Monthly Journal, June, 1848*.

Occlusion of the Vagina.—Dr. Hayne, of Charleston, has reported, in the May number of the Charleston Med. Jour. for 1848, a case of occlusion of the vagina, following sloughing of the os externum and vaginæ, five days after delivery with twins. Previous to delivery the patient suffered from intractable œdema of the labia majora.

Nine months after she was seen by Dr. H., who found her suffering from retention of the menses, caused by complete

occlusion commencing one inch within the vulva. The size of the abdomen was that of a woman advanced seven months in pregnancy, the fundus uteri as high up as the umbilicus. The plan of treatment pursued, was that of the use of the compressed sponge of a conical shape, allowed to remain twenty-four hours, and then removed, and the vagina cleansed by warm injections. This plan was pursued for four weeks, when, owing to the inflammation of the parts produced, it was discontinued for a week. The treatment was then resumed and continued for three weeks longer, when the seat of the stricture could be felt three and a quarter inches from the vulva. At the end of this time, a severe flooding set in, which was arrested by means of the tampon. The next day the tampon was removed, and a large flow of dark uncoagulated blood followed. Four weeks after she had completely recovered, and her natural menses appeared for the first time in eleven months.

A second case may be found reported in an "Introductory on Atresia Vagina;" by Prof. Hard, of Ind. Med. Coll., a sketch of which is given in the 2nd vol. of "The Annalist," p. 271. The occlusion, in this instance, resulted from instrumental delivery. An operation was performed by Prof. H., by which an opening was made "into the uterus, at about the anatomical division between the cervix and body." About ten ounces of menstrual fluid flowed. Dangerous inflammation followed, requiring active depletion. At the end of four months, the patient had so far recovered, that she menstruated regularly through an artificial vagina large enough to admit the finger.

A third case of occlusion is reported in the *Annalist* for June 15th, 1848, in the Proceedings of the N. Y. Path. Soc. It occurred in the Hospital practice of Dr. J. O. Stone, of this city. The patient, eight months previous, had phagedenic ulceration of the vulva and vagina, which resulted in complete occlusion one inch and a half from the vulva. The fundus uteri was felt a little to the left of the umbilicus. A large globular tumor was detected by an examination per rectum, completely filling the pelvis. The operation of puncture through the cicatrix by means of a trochar, was resorted to. During the first twenty-four hours, thirty-five ounces of a dark tar-like substance was discharged. Symptoms of metro-peritonitis set in on the second day, rapidly progressed, and the patient died on the fourth day after the operation. Autopsic examination revealed the presence of a cicatrix five lines in extent, the opening had been made directly through it into the sac. The sac was found to contain pus. Active inflammation of the cavity of the uterus and fallopian tubes, peritoneal covering of the pelvic viscera covered with effused fibrin of a caco-plastic character, that of the intestines and abdominal walls less intense.

This case is one of interest in the following point of view, viz., as showing most conclusively the direct transmission of inflammation from the mucous to the serous covering of the uterus. The order of pathological phenomena seemed to be, in this case, inflammation followed by supuration of the sac, endo-metritis, inflammation of the fallopian tubes, inflammation transmitted by continuity over the pelvic and afterwards abdominal portion of the peritoneum.—*New York Journal of Medicine*.

Vaginal Hysterotomy.—Dr. W. K. Scott, in the *Buffalo Medical Journal* for June, 1848, has published the notes of a case in which he performed this operation. "About twenty-five years since, the patient was seen by Dr. S. in consultation with Dr. F. B. Hicks. She had been in labour for more than a week, during which time no traces of the os tinæ could be found. She was a healthy woman and had borne children. The pains were regular from the first; when exhausted she would sleep quietly for a short time."

The operation was performed by Dr. S. by means of a small scalpel, guarded by the finger; a gush of blood followed the incision. The placenta was adherent to the cervix uteri. Dr. Hicks proceeded to turn and deliver the child, which was accomplished in a short time. The patient recovered rapidly and has since borne children.

Two cases have previously been reported in American practice—for the first, see vol. 2, p. 199, of this Journal. The second will be found in the *American Journal of Medical Science*, vol. 15, p. 348. Both of these cases occurred in the practice of Prof. Bedford, of the New York University; in neither, however, was the placenta attached over the os or cervix uteri. The operation was successful to both mothers and children.—*New York Journal of Medicine and Collateral Sciences*.

MISCELLANEOUS.

GENERAL AND MEDICAL INTELLIGENCE.

Secretion of Milk in an Aged Woman, without Pregnancy.—The *Dublin Medical Press*, August 30, contains an authenticated instance of the above, in the case of an old woman, aged 61, whose youngest and last child is 18 years old. The child of her daughter, who had died, was taken home by the old woman, in whose bed it slept. She felt pain in her breasts for three days, and they finally became full of milk, and she has suckled the child for the last two months. The quality of the milk is not good, as the child has emaciated.—Berzelius died at Stockholm on the 7th August, from paralysis. His intellect was steep to the last.—The graduates of the University of London are making a move to obtain such an amendment of its charter as will enable them to participate in its management, and become a part of the corporate body of the University.—The Committee of Management of King's College Hospital have purchased a large plot of ground whereon to erect a new Hospital.—*Secret Poisoning.*—This species of Thuggism is on the increase in England, and is evidently promoted by what are called the Burial Clubs—institutions, in which, for 1s. 3d. entrance fee, and 4d. per quarter afterwards, any party may secure £9 on the death of another, or to his own family, in the event of his own. A woman of the name of May was lately tried and executed at Chelmsford for the murder of her brother by arsenic; she, without his knowledge, having entered his name at a club of this nature at Harwich. The cold-blooded villainy of this wretch is almost incredible, there being the greatest probability that she had, some years previously, made away with her husband and several of her children, under precisely similar circumstances. The *London Medical Gazette*, Sept. 1, has a most able editorial article on this subject.—In the *Indiana and Illinois Medical Journal*, a case of quadruplets is reported by Dr. Welch—two boys and two girls. There were two double placentæ.—There is every probability that the lecture terms will be gradually extended to six months in the United States.—*Pay of the United States Medical Staff.*—The naval staff of the American fleet for 1848 contains 68 surgeons, 40 passed assistant surgeons, and 37 assistant surgeons. The pay of naval surgeons is as follows:—For first five years after commission, waiting orders, \$1000 per annum. In navy yards and receiving vessels \$1250. At sea service, \$1333.35. Surgeon of the fleet, \$1500. For second five years, when waiting orders, \$1200. In navy yards and receiving vessels, \$1500. Sea service, \$1600. Surgeon of a fleet, \$1800. For the third five years, waiting orders, \$1400. Navy yards, &c., \$1750. Sea service, \$1866.66. Surgeon of the fleet, \$2100. For the fourth five years, waiting orders, \$1600. In navy yards, &c., \$2000. Sea service, \$2133.33. Surgeon of a fleet, \$2400. For twenty years and upwards, waiting orders, \$1800. In navy yards, &c., \$3350. Sea service, \$2400, and if surgeon of a fleet, \$2700. The pay of a passed assistant surgeon, waiting orders is \$850 per annum. In navy yards and receiving vessels, \$1150, and at sea \$1200. The pay of assistant surgeons, the lowest grade is, when waiting orders, \$650; in navy yards and receiving vessels, \$950, and at sea service the same.—(Annalist).—*Extract of Belladonna issued for Extract*

Taraxicum.—This grievous mistake has been committed by the Shakers of Mt. Lebanon, N. Y., and one fatal case has been the result. Pots labelled Ext. Taraxicum were found to contain Belladonna instead of this agent in N. Y. We do not believe this caution will be very necessary here, as most of our extracts come from England, but it may, nevertheless, be useful. The mistake seems to us unpardonable.—*Comet.*—The long-expected periodic comet of 1264 and 1556, has been discovered in the constellation Auriga, by Dr. Peterson, of Altona. It is described as small, but bright, and easily observed. By its positions on the 7th and 10th August, it would appear that it passed its perihelion on the last week in July, and is now descending to the southern hemisphere.—*Progress of the Cholera to August 23.*—Letters from St. Petersburg state that it was disappearing from that city. The Cholera Hospitals were closed by order of the Emperor. Private letters from Paris announce that it had broken out in Berlin. The following details, copied from the *Dublin Medical Press*, of August 23, are of interest:—From the weekly sanitary reports of the city of Constantinople, it appears that there is a decline of cholera cases in the capital. On the 11th, 206 died, among whom were only fifty-five females. The greater number of deaths have occurred in Galata—namely, twenty, and in Pera, seven; (these are suburbs of the city beyond the harbour). Letters from Egypt, dated Alexandria 22d ultimo, announce that the cholera has manifested itself with considerable intensity at Cairo, and that the epidemic had also reached Santah, a town on the Damietta branch of the Nile. The *Examiner* states, "that from a late number of the *Military Gazette* of Russia, we find that since the appearance of the epidemic, there were seized at St. Petersburg, from the 30th of June to the 21st of July, 19,772 persons, of whom 4831 recovered, and 11,068 died. In the whole of Russia, since the first appearance of the cholera, the 28th of October, 1846, to the 5th of July, 1848, 290,318 persons were seized with the epidemic, and 116,658 died. On the 28th of July, there were at St. Petersburg, 2396 cholera cases; in the course of the day, 137 fresh cases occurred; 211 recovered, and 82 died. On the 29th, there were 2240 sick, 132 new cases; 188 recovered, and 68 died. On the 30th, there remained 2116 cases under treatment. We learn, that at Berlin four cases of cholera have appeared. At Munich, the ministry is taking active preparatory measures in the event of the appearance of the cholera in Bavaria. At Königsberg, two cases have occurred, in consequence of which a committee of health was sitting in that city to take measures against the spread of the epidemic. The Malta Board of Health have ordered all vessels coming from Egypt, Syria, Constantinople, Dardanelles, and other parts of the Ottoman Islands, to perform a quarantine of fifteen days." Six large cholera hospitals were opened in St. Petersburg during the prevalence of the cholera, and the numbers received were—

	Fresh cases.	Died.	Recovered.	Total under treatment.
On July 11th,	692	396	"	"
" 12th,	606	386	"	4006
" 14th,	525	312	218	3972
" 15th,	432	274	262	3843

At Abo (Grand Duchy of Finland), on the 15th of July, 462 persons had been attacked with cholera: of these 225 died, and 139 recovered, or were convalescent. Since then the cholera has disappeared from Finland. Several cases of cholera had occurred at Orsawa, Pesth, on the 14th of July. The cholera, which had sensibly increased in Constantinople during some days previous to the 5th July, lessened in severity after the occurrence of a violent storm. There were 196 deaths during the last seven days. The epidemic is declared to be prevalent in Asia Minor and the Dardanelles. The *Kolner Zeitung* has a letter from Posen of the 5th inst., stating that a case of Asiatic cholera had occurred in that city. The patient, a woman, was at once conveyed to the Cholera Hospital, where it is asserted she is doing well, and likely to recover. Cholera hospitals have, by order of the Government, been prepared in all the Prussian towns and large villages, and every care is taken to lessen the horrors of the approaching pestilence. The twenty-one deaths from cholera in London, for the week ending July 22, are not from Asiatic cholera.—Dr. Mayer of Besançon has recently compared the rate of mortality among persons who have taken the religious vow of celibacy, and lay individuals in the different walks of society. His results are similar to those obtained by Demarenaux in 1746, proving that celibacy

is not injurious, but, on the contrary, favourable to a state of longevity.—Mr. Ancelon has lately discovered a tenia in a fish: it was 11 inches in length, and differed from its analogue in the human species, in having a head ending in a point, which the animal could elongate or retract at will.—A new narcotic has been discovered, the Deimba, or Congo tobacco, growing on the marshy banks of the Congo or Zaira. It would not surprise us to see it rivalling the common nicotiana as an article of luxury. It is now used by the Portuguese residents on the African coasts as such.—A few cases of yellow fever, with black vomit, occurred at Staten Island, N. Y. It excited a good deal of panic among the New Yorkers. The disease existed on the easternmost border of the island, and, although opposite the quarantine station, there can be little doubt of its purely local origin. The disease is disappearing.

THE
British American Journal.

MONTREAL, OCTOBER 2, 1848.

DR. CODERRE AND THE REPEAL ASSOCIATION.

Having in our last made all the observations on the professional parts of Dr. Coderre's letter which we deemed necessary, and having pointed out the *very peculiar* position in which one of his own friends has thrust himself by *publicly denying* a statement which he *had openly* made, it now remains for us to deal with Dr. Coderre for *his* breach of the ordinary rules of conventional intercourse. If we can glean anything from a careful perusal of Dr. Coderre's lengthy communication, this fact would be most forcibly impressed on us, that he considers verbosity, vituperation, and personality, weapons of no ordinary kind of power; that "in war every advantage may be legitimately taken," no matter what its nature; that cunning and artifice may with every propriety supplant more noble and more honourable means; and that in literary warfare the sanctity even of private intercourse may be invaded and exposed, the end justifying the means. We quarrel not with Dr. Coderre for the selection of his weapons; their quality cannot but be appreciated by every right-thinking and honourable mind, and the *very peculiar* position of Dr. Coderre himself, thus indicated to a nicety. We confess to the entertainment of the private opinion which has been attributed to us. That opinion, from legal advice taken months ago, we have found to have been based on error; and on that legal advice we have since pursued our course, the unflinching advocate of the incorporated College, in which the best interests of the Profession of the Province are involved, and the uncompromising enemy of those restless demagogues, whose vanity forces them into a position for which neither nature nor their status in the profession ever designed them, and whose paltry subterfuges it is our delight to expose, and to treat

in the only serious way of which we are capable, and they are worthy—namely, by ridicule; for we have seen nothing in the lucubrations of any of the Association, worthy of any more elevated notice.

We thus express ourselves freely; and our opinion of men and matters in the present state of professional affairs, has been wrung from us by Dr. Coderre's violation of decorum. What if we expressed that opinion to Dr. Coderre. Has Dr. Coderre any right to publish it, or without our sanction? Certainly not. If Dr. Coderre has violated the etiquette of *gentlemanly* intercourse, we at least will forbear the expression of the ideas which rise in our mind; but which his conduct might well deserve. We will be merciful, because "mercy is twice blessed."

Written Examinations.—We have received from one of the governors of the College, resident in Quebec, the copy of a proposal, the essence of which is, to conduct the examination of candidates for license by a series of *written* questions, instead of the customary *viva-voce* ones—the candidate to answer in writing. This is the plan generally adopted now in Great Britain, and we think that none affords a more effectual test of the knowledge of the candidate. As we like both the principle and the plan, we would not have the slightest objection to see it carried out.

Lea and Blanchard's Medical Publications.—We understand that these enterprising publishers of medicoliterary works, have appointed Mr. John McCoy, Bookseller and Stationer, Great St. James' Street, their Agent, where may be had a number of their most valuable recent publications. We think this is right, and we think that publishers generally in Philadelphia and New York, will find it their interest to have agencies in this city, in which, during the winter months, a large number of students congregate, besides putting in the way of medical men an easy method of obtaining works they may desire. We would wish, for the sake of the profession, to see Messrs. Lea and Blanchard's proceeding imitated by other houses, for we are certain it would be mutually advantageous.

Act of Incorporation for Upper Canada.—We have been given to understand, that attempts are being made to obtain an Act of Incorporation for the profession in the sister province. We have no knowledge of the particulars of the Act, but we have been notified from several sources, that one is in progress. The profession in the sister province has our best wishes in

their favour, and that when obtained, no blighting influences from a misdirected ambition will mar its progress.

BOOKS, &c., RECEIVED.

Medical Lexicon, a Dictionary of Medical Science, &c., By Robly Dungsion, M.D., Professor of Institutes of Medicine, Jefferson Medical College; 7th edition. Philadelphia: Lea and Blanchard; 1848.

On Bandaging and other Operations of Minor Surgery. By F. W. Sargent, M.D. Philadelphia: Lea & Blanchard; 1848.

Medical Chemistry, for the Use of Students and the Profession, &c. By D. P. Gardner, M.D., &c. Philadelphia: Lea and Blanchard; 1848.

An Analytical Compendium of the various branches of Medical Science, for the Use and Examination of Students. By John Neill, M.D., and F. G. Smith, M.D. Philadelphia: Lea and Blanchard; 1848.

A Dispensary or Commentary on the Pharmacopœias of Great Britain and the United States. By Robert Christison, M.D., with copious additions and illustrations. By R. Eglesfeld Goldsmith, M.D. Philadelphia: Lea & Blanchard; 1848.

The Principles and Practice of Modern Surgery. By Robert Drewitt; a new American, from the last and improved London Edition. Edited by F. W. Sargent, M.D. Philadelphia: Lea and Blanchard; 1848.

A System of Human Anatomy, General and Special. By Erasmus Wilson, M.D.; 4th American, from the last London Edition. By Paul B. Goddard, A.M., M.D. Philadelphia: Lea and Blanchard; 1848.

A Practical Treatise on the Diseases of Children. By J. For-syth Meigs, M.D. Philadelphia: Lindsay & Blakiston; 1848.

Our usual exchanges have also come to hand.

NOTICES TO CORRESPONDENTS.

Letters have been received from Captain Lefroy, Dr. Marsden, Dr. Sewell, Dr. Hunter, Dr. Stratton, Dr. Gibb, Messrs. Lea and Blanchard, Dr. Foster, Dr. Poinchaud. Dr. Hunter's request has been complied with. We will be happy to receive Dr. Gibb's other paper with remarks on the general practice pursued in the Parisian Hospitals in the cases reported.

We are obliged to Dr. Earle, Bloomingdale Asylum, N. Y., for his attention.

Professor Croft's letter just received.

OBITUARY.

At Paris, C. W., on the 12th August, after a short illness, Dr. Alfred Bosworth, eldest son of the late Rev. Newton Bosworth.

At Guelph, 6th Sept., aged 23 years, Robert Alling, Esq., M.D., during 16 years a resident of this town, and formerly of Laxfield, Suffolk, England.

At Bytown, on the 28th August, Doctor James Stewart, formerly of the 81st Regiment, aged 60 years.

MONTHLY METEOROLOGICAL REGISTER AT MONTREAL FOR AUGUST, 1848.

DATE.	THERMOMETER.				BAROMETER.				WINDS.			WEATHER.		
	7 A.M.	3 P.M.	10 P.M.	Mean.	7 A.M.	3 P.M.	10 P.M.	Mean.	7 A.M.	Noon.	6 P.M.	7 A.M.	3 P.M.	10 P.M.
1,	+70	+77	+64	+73.5	29.41	29.46	29.57	29.48	S W	S W by S	S	Fair	Fair	Fair
2,	" 66	" 79	" 65	" 72.5	29.55	29.57	29.79	29.64	S	W S W	W	Fair	Fair	Fair
3,	" 69	" 85	" 72	" 77.	29.87	29.85	29.83	29.85	W S W	W S W	S W	Fair	Fair	Fair
4,	" 73	" 86	" 70	" 79.5	29.80	29.65	29.55	29.67	S W by S	S W	S	Fair	Fair	Rain
5,	" 72	" 75	" 67	" 73.5	29.42	29.36	29.48	29.42	S W by S	W by S	W	Cloudy	Rain	Cloudy
6,	" 68	" 77	" 65	" 72.5	29.61	29.66	29.69	29.65	W	W	W	Fair	Fair	Fair
7,	" 69	" 79	" 69	" 74.	29.77	29.74	29.76	29.76	W	S W	S W	Fair	Fair	o'erc'st
8,	" 67	" 84	" 66	" 75.5	29.81	29.77	29.78	29.79	W S W	W	W	Fair	Fair	Fair
9,	" 70	" 86	" 75	" 78.	29.82	29.74	29.69	29.75	W by S	W	S W	Fair	Fair	Fair
10,	" 72	" 93	" 76	" 82.5	29.71	29.65	29.65	29.67	S W	S W	S W	Fair	Fair	Fair
11,	" 78	" 94	" 74	" 86.	29.70	29.67	29.73	29.70	S W	W S W	W	Fair	Fair	Rain
12,	" 72	" 81	" 74	" 76.5	29.78	29.80	29.82	29.80	N by W	N by W	W N W	Cloudy	th. & rn	o'erc'st
13,	" 78	" 94	" 75	" 86.	29.80	29.83	29.80	29.81	W by S	S W	S W	Fair	Fair	Fair
14,	" 79	" 92	" 78	" 85.5	29.81	29.70	29.69	29.73	S W	S W	S by W	Fair	Fair	Fair
15,	" 80	" 74	" 69	" 77.	29.74	29.80	29.82	29.79	N W	N by W	N by W	o'erc'st	Rain	Cloudy
16,	" 58	" 57	" 56	" 57.5	29.81	29.74	29.71	29.75	N N E	N N E	N E	th. & rn	Rain	Rain
17,	" 58	" 65	" 62	" 61.5	29.70	29.69	29.68	29.69	N E	N E	N by E	Rain	Rain	Cloudy
18,	" 60	" 61	" 65	" 60.5	29.68	29.62	29.64	29.65	N E	N E	N E	Rain	Rain	Rain
19,	" 61	" 72	" 64	" 66.5	29.71	29.65	29.66	29.67	N W	N W	N W	Rain	Fair	Fair
20,	" 63	" 73	" 59	" 68.	29.73	29.72	29.74	29.73	N E	N E	N E	Fair	Fair	Fair
21,	" 54	" 71	" 60	" 62.5	29.81	29.80	29.81	29.81	N by E	N by E	N N E	Fair	Fair	Fair
22,	" 57	" 75	" 63	" 66.	29.83	29.85	29.83	29.84	N E	N E	N E	Fair	Fair	Fair
23,	" 62	" 77	" 62	" 69.5	29.86	29.83	29.81	29.83	N E	N E	N E	Fair	Fair	Fair
24,	" 60	" 79	" 61	" 69.5	29.80	29.82	29.85	29.82	N E	N E	N E	Fair	Fair	Fair
25,	" 67	" 78	" 65	" 72.5	29.91	29.90	29.89	29.90	E S E	S E	S E	Fair	Fair	Fair
26,	" 68	" 80	" 67	" 74.	29.97	29.95	29.95	29.96	S E	S E	S E	Fair	Fair	Fair
27,	" 69	" 82	" 69	" 75.5	29.96	29.87	29.78	29.87	S by W	S	S	Fair	Fair	o'erc'st
28,	" 67	" 61	" 58	" 64.	29.66	29.51	29.50	29.56	S	S	S	o'erc'st	Rain	Rain
29,	" 64	" 75	" 66	" 69.5	29.51	29.55	29.56	29.54	S W	S W	S W	Fair	Fair	H'y wn
30,	" 62	" 83	" 72	" 72.5	29.60	29.56	29.55	29.57	S W	S W	S W	Fair	Fair	Cloud
31,	" 67	" 88	" 75	" 77.5	29.48	29.45	29.38	29.44	W	W	W	Fair	Fair	Cloudy

Therm. } Max. Temp., +94° on the 11th & 13th
 } Min. " 54° " 21st
 Mean of the Month, +72.8

Barometer, } Maximum, 29.97 In. on the 26th.
 } Minimum, 29.36 " 5th.
 Mean of Month, 29.714 Inches.

CHLOROFORM.

THE SUBSCRIBERS have prepared, for Sale, Chloroform, or Trichloride of Formyle, the new Anæsthetic Agent, as a substitute for Ether, recently proposed by Dr. Simpson, of Edinburgh. This Agent has received the recommendation of the highest Medical Authorities in Great Britain, and has been used with increased success in this vicinity.

S. J. LYMAN & Co.,
Chemists, Place D'Armes, Montreal.

Jan. 31, 1848.

THE Subscribers have their usual assortment of genuine Drugs and Chemicals, which they offer low for cash, or approved credit.

WM. LYMAN & CO.



URQUHART'S

FLUID EXTRACT OF JAMAICA SARSAPARILLA.

THE Subscriber begs leave to submit to the Medical Profession and to the public, his preparation of Sarsaparilla which has been extensively used in their practice, by many of the most eminent Medical Gentlemen in the City, and with the most beneficial results, as the following testimonials, with which he has been very politely favored, will satisfactorily show.

For sale only at the Medical Hall, Great St. James-Street.

ALEX. URQUHART.

August 2.

ALEXANDER URQUHART, ESQ.—DEAR SIR,—I have much pleasure in bearing testimony to the faithful manner in which you prepare your Fluid Extract of the Compound decoction of Sarsaparilla. This I am enabled to do on account of several of my patients having derived the greatest benefit from its use.

For Constitutional Syphilis and Chronic Rheumatism, I have prescribed it with the most marked effects; I can therefore, without the least hesitation, recommend your preparation as one possessing all the Medicinal qualities of the Compound Decoction of Sarsaparilla, while it is, at the same time, more palatable, and less apt to derange the stomach.

I remain, Dear Sir,

Your most obed't serv't,

W. FRASER, M. D.

Lecturer on Medical Jurisprudence,
McGill College.

Montreal, 9th February, 1847.

Montreal, February 10th, 1847.

I beg to certify, that I have employed very extensively, the "Fluid Extract of Sarsaparilla," made by Mr. Urquhart, in all those diseases in which that Medicine is usually prescribed, and that I have found it a most valuable preparation. I can, moreover, state from personal investigation, that the proprietor employs none

but the purest ingredients, and bestows the greatest care and attention upon the mode of preparing the remedy.

ROBERT L. MACDONELL, M. D.,

Lecturer Institutes of Medicine,
McGill College,

Physician to the Montreal General Hospital.

Mr. Urquhart's Sarsaparilla is the only preparation of this valuable Medicine that I can, with entire confidence, recommend to my patients.

M. McCULLOCH, M. D.

Montreal, 10th February, 1847.

DEAR SIR,—I have frequently prescribed your Fluid Extract of Sarsaparilla, and I have no hesitation in recommending it as a very elegant and convenient form for administering that Medicine.

Yours very truly,

GEO. W. CAMPBELL.

To Alex. Urquhart, Esq.

Montreal, 10th February, 1847.

Dr. Picault's Pharmacy,

69, St. PAUL STREET, BONSECOURS MARKET

Just received, and for Sale, together with the usual Drugs, the following

CHEMICALS:

Aconitine	Ioduret of Lead
Brucine	" of Potassium
Chloride of Gold	" of Quinine
" of Gold & Sodium	Jalapine
Citrate of Iron	Lactate of Iron
Cyanuret of Mercury	Lactucarium
" Of Potassium	Lupuline
(very pure.)	Naphthaline
Delphine	Narcotine
Digitaline	Oxide of Silver
Elatarium	Rhabarbarine
Emetine	Strychnine
Gentianine	Valerinate of Zinc
Hachisch (Cannabis Indica)	Veratine
Ioduret of Arsenic	Oil of Ergot
" of Iron	" of Spurge
" of Mercury	

Extracts of Every Kind, &c. &c.

The gentlemen of the Profession are particularly invited to inspect a Set of TEN MODELS of SURGICAL ANATOMY, of Natural Size, made with Leather, the most perfect imitation ever seen in this country.

Montreal, May 29, 1847.

**Mr. Le DOYEN'S
DISINFECTING FLUID,**

TO BE SOLD AT DR. PICAULT'S,

69, St. Paul Street,

MEDICAL JOURNALS,

Published by RICHARD and GEORGE S. WOOD No. 261 Pearl Street, New-York.

THE BRITISH AND FOREIGN MEDICO-CHIRURGICAL REVIEW, AND JOURNAL OF PRACTICAL MEDICINE.—Published Quarterly, at \$3 per Annum.

THE MEDICO-CHIRURGICAL REVIEW had, for very many years, a reputation unequalled by any other journal, as the leading Medical Journal of Europe, and a standard work in medical literature. Being republished in this country for more than 25 years, it was universally known to the Medical Profession here, and was pronounced by some of the most eminent "the best medical journal extant." The British and Foreign Medical Review, though not so long established, was nearly as well known, and was conducted with such spirit and talent, as fully to entitle it to rank with its illustrious predecessor. These two works are now united, (under the above title,) and will be sustained by the united contributions of the writers, whose talents have given such eminence to both. Of the merits of the work produced by this combination, nothing need be said. The American republishers hope, however, to increase its value by their

ADDENDA TO THE MEDICO-CHIRURGICAL REVIEW, OR QUARTERLY RETROSPECT OF AMERICAN PRACTICAL MEDICINE AND SURGERY:

A valuable Abstract of American Medical Intelligence; compiled from all the American Medical Journals; which will be sent *gratuitously*, to all who remit payment to the publishers, postage free, in advance.

THE ANNALIST: A RECORD OF PRACTICAL MEDICINE IN THE CITY OF NEW YORK.

Edited by William C. Roberts, M.D. Fellow of the College of Physicians and Surgeons, New York.—Published Semi-Monthly, Price Two Dollars per Annum, in advance.

The vastness of its medical resources rendering New York as much the medical as it is the commercial metropolis of the Union, the importance of this journal as a record of the progress of the medical sciences in this city, and an organ of communication between the members of the Medical Profession here and those abroad, must be apparent to all.

WOOD'S QUARTERLY RETROSPECT OF AMERICAN AND FOREIGN PRACTICAL MEDICINE AND SURGERY.

Price One Dollar per Annum, in Advance.

This work is designed to meet the demands of this "high-pressure" age, by furnishing the physician and surgeon the means of keeping pace with the progress of knowledge in their respective departments of science, at the *least possible cost of time and money*. It consists of condensed reports of cases and their treatment, with occasional remarks, and abstracts of the medical literature of the day, collected from the whole field of medical science, American and Foreign, with announcements of all new publications of interest to the profession.

Its plan is, in the main, that which has been so much approved in "Braithwaite's Retrospect," and "Ranking's Abstract;" with the superadded advantages of a fuller view of *American Medical Literature and Science*, a more frequent emission, and reduction of price; and it is hoped will meet with the general approbation of the Medical Profession. It was suggested by some members of the profession as a desideratum in medical literature not yet supplied by any journal; and the publishers intend, if well sustained in the undertaking, to spare neither pains nor expense to make it worthy of the most extended patronage.

It will be seen at once that, at a price so low, it can only be supported by a very extensive circulation; but the advantages offered are such, that this is confidently anticipated; and they request all to whom this is sent who approve the plan, to aid them by bringing it to the notice of their professional brethren.

Authors and Publishers wishing their works reported, will please forward copies.

RECOMMENDATIONS.

A work like "WOOD'S QUARTERLY RETROSPECT," presenting a view of American and Foreign Practical Medicine and Surgery, so extended as to omit nothing of material interest, yet so condensed as to meet the demand of those who want of time or means prevents their access to the various sources from which it is compiled, was much needed, and we cordially commend it to the patronage of every member of the Medical profession.

Alexander H. Stevens, M.D. Pres. and Emeritus Prof. of Clin. Sur. in Coll. of Phys. and Surg.

J. M. Smith, M.D. Prof. of Theo. and Prac. of Med. and Clin. Med. Clin. Med.

John B. Beck, M.D. Prof. of Mat. Med. and Med. Juris.

John Torrey, M.D. Prof. of Bot. and Chem.

Robert Watts, Jr., M.D. Prof. of Anat.

Willard Parker, M.D. Prof. of Prin. and Prac. of Surg.

C. R. Gilman, M.D. Prof. of Obstets. and Dis. of Wom. and Child.

Alonzo Clark, M.D. Lect. on Phys. and Path.

Gustavus A. Sabine, M.D. Dem. of Anat.

V. Mott, M.D. Prof. of Surg. and Path. Anat. in University of New York.

Samuel H. Dickson, M.D. Prof. of Theo. and Prac. of Med.

Granville S. Pattison, M.D. Prof. of Genl. and Descrip. Anat.

Martyn Paine, M.D. Prof. of Inst. of Med. and Mat. Med.

G. S. Bedford, M.D. Prof. of Midwif. and Dis. of Wom. and Child.

John Wm. Draper, M.D. Prof. of Chem.

Wm. H. Van Beurden, M.D. Prosec. to Prof. of Surg.

Wm. Darling, M.D. Dem. of Anat.

Since its first appearance the RETROSPECT has met with general approbation; and many testimonials in its favor might be produced; but the publishers deem it unnecessary to give more than the foregoing from the Professors of the two Medical Schools of New York; hoping that as the price is so low, those who wish to know more of it, will give it a trial for one year and ascertain its character from the work itself.

Subscribers in ordering these works will please write their names legibly, and at full length, adding their respective titles and the names of the town, county, &c., of their residence.

All other Medical Journals, and Medical Books in general, for sale. Catalogues given on application.