

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.

- 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:

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 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,

DEVOTED TO

THE ADVANCEMENT OF THE MEDICAL AND PHYSICAL SCIENCES IN
THE BRITISH AMERICAN PROVINCES.

EDITED BY

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

Professor of Midwifery and the Diseases of Women and Children, University of McGill College, Montreal,
&c. &c. &c.

VOL. I.



MONTREAL:

PRINTED AND PUBLISHED BY JOHN LOVELL, ST. NICHOLAS STREET.

1860.

6100

INDEX TO VOL. I.

	PAGE		PAGE
Abdomen, case of tumour in.....	415	BARDY, Dr. L. E., cas de hernie étranglée.....	162
Aceland, Dr.....	429	Belladonna as an antilactescent.....	50
Acne, applications in.....	126	Bill, the Upper Canada medical.....	44
Acne, Iodide and Chloride of mercury in.....	263	Bill, the Apothecaries for Lower Canada.....	45
Act, Registration, of Upper Canada.....	185	Bismuth, Oxyde in Gleet.....	324
Act, Vaccination.....	185	Bismuth Subnitrate in burns and scalds.....	404
Act to secure the health of localities in U. C.....	237	Blisters, to make a.....	471
Act to prevent adulteration of articles of food and drink.....	238	Blood stains, detection of.....	269
Act to regulate the education of apothecaries and sale of poisons.....	238	Blood, sweating of.....	370
Acupressure, a new method of arresting he- morrhage in.....	214	Books, &c., received, 47, 143, 191, 239, 237, 431. 478, 525, 374	
Acupressure in amputation of the breast.....	324	Borax in diptheritis.....	267
Address to the Prince of Wales.....	429	Botany, lectures on.....	475
Allarton's lithotomy operation.....	325	Brain, Iodide of potassium in diseases of, in children.....	265
Aloes, tincture of, as an injection in Gleet.....	230	Breast, acupressure in amputation of.....	324
Alum lozenges in affections of the throat.....	267	Breast, on the diagnosis of tumours of.....	516
Ammonia, muriate of, in nervous Cephalalgia.....	263	Brodie, Sir Benjamin.....	430
Ammonia Carbonate, Pills of, in Chronic Bron- chitis.....	266	Bronchitis, Pills of Carbonate of Ammonia in Chronic.....	266
Ammonia Carbonate in Measles.....	323	Bronze skin disease with Phthisis.....	174
Anatomical purposes, preservation of bodies for Anatomy, Professor of, at Warsaw.....	369	Bronzed skin.....	303
Anchilosed elbows, forcible extension in.....	325	Burns and Scalds, Subnitrate of Bismuth in.....	404
Aneurism, treatment of, by compression.....	37, 556	Burial ground, Discovery of an ancient.....	350
Aneurism, case of Popliteal.....	442	Caffeine in opium-coma.....	362
Angina Pectoris, case of.....	317	Call, a.....	575
Anthrax, Incisions in.....	36	CAMPBELL, Dr. F. W., case of angina pectoris.....	347
Antilactescent, Belladonna as a.....	30	Cataract, two modifications of operation for.....	217
Aorta ascending, puncture by a needle.....	270	Catheterism on Eustachian.....	218
Apothecaries' Bill.....	186	Cattle disease in the Northern States.....	423
Appendix Vermiformis, discharge of the, from the bowels.....	127	Cephalalgia, Muriate of Ammonia in nervous.....	266
Argyria, case of.....	313	Cerebellum, case illustrating the pathology of.....	279
Arsenic eaters of Styria.....	566	Cerebral effusion, death from.....	406
Artery Primitive Hiac, statistics of ligation of.....	413	Cerium, therapeutic use of oxalate of.....	561
Ascites, extraordinary case of.....	559	Charlatanism in the profession.....	427
Asphyxia from Chloroform, Faradisation of dia- phragm in.....	175	Child, delivery of one weighing 18 lbs.....	414
Assembly Legislative, Bills before.....	283	Chlorate of Potassa in Phthisis.....	457
Astronomer, the physician.....	231	Chloroanæmia, pathology and treatment of.....	565
Atropine, hypodermic employment of.....	123	Chlorodyne, its history, preparation, &c.....	262
Atropine, hypodermic injection of the sulphate in Asthma.....	227	Chloroform, Faradisation of diaphragm in As- phyxia from.....	175
Auscultation fetal, practical remarks on.....	418	Chloroform, treatment of Hysteric paroxysm by.....	228
BARDY, Dr. L. E., cas de lithotomie sur la femme.....	13	Chloroform, new application in Neuralgia.....	399
		Chloroform in Scabies.....	404
		Chloroform paregoric.....	472
		Chromium, an easy mode of preparing metallic Clavicle, intra-uterine fracture of.....	41 375

PAGE	PAGE		
Hypodermic treatment, mode of employing.	310	Milky urine.	226
Hypodermic injection of Sulphate of Quinine.	472	Milk, on means of determining the quality of.	336
Hysteric paroxysm, treatment by Chloroform.	228	Milk, artificial human.	470
Injection, narcotic, subcutaneous instead of blistering.	137	Montgomery, the late Dr.	94
Intermittent fever, Quinine a prophylactic of.	506	Morphia, antiplogistic powers of.	179
Intestines, case of mechanical, obstruction of.	251	Murder, arrest of a medical man for.	572
Introductory lecture.	481	Muscle, Rouget's utero ovarian.	92
Iodide of ammonium in constitutional syphilis	259	Myelitis, case of.	464
Iodide of mercury in skin diseases.	263	Myrzina Africana in Treuia.	525
Iodide of Potassium in brain diseases of children.	263	Nail ingrowing.	182, 549
Iodide of Iron and Sugar.	405	Necrosis in various bones.	90
Iodism, on.	365, 369	NELSON, Dr. H., case of large fibrous tumour.	2
Ipecacuanha instead of tartar emetic in croup	322	NELSON, Dr. H., cases in Surgery.	97, 248
Iron persulphate as a hemostatic.	262	NELSON, Dr. H., case of lingering labour.	385, 433
Iron rod through head, case of.	549	NELSON, Dr. W., On foul emanations.	399
Labour, artificial premature to produce, by uterine catheterism.	224	Neonati determination of life without respiration.	368
Labour, lingering.	385, 433	Neonatus, cause of death in a, by a fall into a sink.	406
Laryngoscope, the.	504	Nervous, cephalalgia, muriate of ammonia in.	266
Laryngoscopy.	309	Neuralgia, treatment of, by hypodermic injections.	24
Laryngismus stridulus.	227	Neuralgia, new application of chloroform in.	309
Larynx, seals of.	273	Neuralgia, dental.	467
Law Intelligence.	187, 330	Nickel, on the equivalent of.	42
Lead colic, on the pathology of.	453	Nipples, excoriated.	229
Lead, glycerole of.	265	Nitro-benzine, toxicological remarks on.	269
Lead, slow poisoning by preparations of.	564	Obituary notices.	190, 334, 383
Lectures, the.	475	Opium coma, caffeine in.	362
Leeches, preservation of.	569	Ophthalmia of new born infants, collyrium for.	230
Licenses, value of U.C. and L.C.	183	Ovarian tumour, case of—Ovariectomy.	533
Licentiates, College of Physicians and Surgeons of L.C.	141	Paralysis, diphtheritic.	509
Life without respiration.	405	Parchment paper, transformation of cellulose into.	42
Limbs, artificial, in France.	89	Paregoric Chloroform.	472
Linton, letter from Mr. J. G. E.	378	Patella, case of compound fracture of.	122
Linton, Mr., and Dr. Shaver.	430	Patella, case of removal of, and recovery.	272
Lithia, carbonate of.	401	Penile organ, carcinoma of.	382
Lithotomie sur la femme.	13	Pepsine in the vomiting of pregnancy.	266
Lithotomy, Allarton's operation for.	325	Pericarditis, after scarlatina anginosa.	125
LOGAN SIR W. E., On the track of an animal in the Pots-dam sandstone.	388	PHILLIPOT, Dr. H. G., Unique case of Surgery.	203
MACDONNELL, Dr. R. L., contributions to clinical medicine and surgery.	1, 56, 199	Phlegmon, on gangrenous.	129
Manganese, on the equivalent of.	42	Phthisis, treatment of, by chlorate of Potassa.	457
Mamma of the Hebrews.	513	Phosphorus in paralysis of the muscles of the eye.	223
MARSDEN, Dr. W., On the use and abuse of tobacco.	14	Phosphorus, case of poisoning by.	499
MARSDEN, Dr. W., On the use of cold water in scarlet fever.	207	Pigmentum Album in cutaneous maladies.	18
MARSDEN, Dr. W., On the differential Stethoscope or Stethophone.	337	Pills, to preserve soft.	324
MARSDEN, Dr. W., Quackery, Imposition and Deception.	529	Pitting in Small Pox, to prevent.	369
MCCALLUM, Dr. D. C., Introductory lecture.	481	Placenta Prævia, Ergot in.	321
Measles, carbonate of ammonia in.	323	Potassium Cyanide, case of poisoning by.	268
Meat, on use of raw, in chronic Diarrhoea	371, 558	Potassium Iodide in brain diseases in children	265
Meconium and vernix caseosa, identity of.	34	Practice, an opening for practice.	95
Medical Students, escapade of.	94	Practical, medicine cases in.	101
Medicines, Quack.	141	Practice, an eligible country.	191
Mentagra, Formula in.	324	Pregnancy, sickness of.	133
Mentagra, lotion for.	404	Pregnancy, normal hypertrophy of the heart in	137
Mercury, iodide and chloride of, in skin diseases	263	Pregnancy, treatment of freckles in.	319
Meteorological Register Toronto, 48, 96, 144, 192, 240, 288, 336, 384, 432, 480, 528		Pregnancy, case of a woman ignorant of her own.	375
“ “ Montreal, 48, 96, 144, 192, 240, 288, 336, 384, 432, 480, 528		Pregnancies, the risk to life of first and subsequent.	136
		Premature labour, induction of, by Cohen's method.	33
		Preparations, new.	474
		Prince of Wales, address to.	429
		Printers, on the diseases of.	456

	PAGE		PAGE
Prostatorrhœa, practical observations on.....	374	Schools, the Medical, of Canada.....	47
Puerperal fever.....	317	Science, British Association.....	381
Quack medicines.....	141	Scrotum and Abdominal parietes, passage of a rake-handle through.....	414
Quackery, imposition and deception.....	529	STAEVER, Dr. P. R., case of puerperal convul- sions.....	103
Quinine sulphate of hypodermically.....	472	Shaver, Dr., and Mr. Linton.....	430
Quinine, a prophylactic of remittent and inter- mittent fever.....	506	Skin diseases, Iodide and chloride of Mercury in.....	263
Readers, to our.....	43	Small Pox.....	515, 571
REDDY, Dr. J., case of popliteal aneurism.....	442	Small Pox, on the prevention of pitting in.....	369, 564
Remittent fever, Quinine a prophylactic in.....	506	Smells, do bad, cause disease.....	327
Remuneration, medical.....	335	SMALLWOOD DR. C., on the eclipse of the Sun, July 18, 1860.....	352
Respiration, life without.....	405	Smallwood, Dr. C., the observatory of.....	282
Resuscitation, successful case of.....	36	Society, Obstetrical, of London.....	95
Revaccination, contribution to the statistics of.....	561	Society, New Sydenham.....	382, 476
REVIEWS AND BIBLIOGRAPHICAL NOTICES:—			
Smith's Manual of Operative Surgery on the dead body.....	19	Spina Bifida, Iodine injections in.....	90
Paget's Lectures on Surgical Pathology.....	21	Sterility, effectual use of sponge tent in.....	416
Workman's Report on British and Irish In- sane Asylums.....	24	Stethoscope or stethophone, on the differential.....	337
Dawson's Archaia.....	76, 110	Stomach, rupture of.....	413
Grossmith's amputations and artificial limbs.....	104	Strychnia, valerianate of.....	365
Well's Epitome of Braithwaite.....	108, 261, 515	Strychnine, poisoning by.....	407
Ranking's Abstract of the Medical Sciences.....	109	Strychnine, tannin as an antidote to.....	501
Hamilton's Treatise on Fractures and Dislo- cations.....	166	Stump, protrusion of bone by growth from end of.....	412
Carnochan's contributions to operative sur- gery.....	170, 212	Surgery, a unique case of.....	203
Gibb, on Diseases of the Throat, &c.....	170	Surgical cases, notes of a few.....	157
Cleveland's physicians' pocket memoran- dum.....	172	Swallowing indigestible substances.....	458
The Chemist and Druggist.....	172	Sweating of blood.....	370
The New Sydenham Society's publications.....	213	Syphilis, on the communicability of second- ary.....	411, 550
West on the Diseases of Infancy and Child- hood.....	253	Syphilitic tumours of the tongue.....	372
The Brigham Hospital for the Insane.....	258	Syphilitic patients, union of fractures in.....	552
Stille's Therapeutics.....	259	Tannin as an antidote to Strychnine.....	501
Toynbee, on Disease of the Ear.....	301	Tapeworm, Myrzina Africana in.....	565
Gross's System of Surgery.....	358	Temperatures low, relation of food to.....	39
Holme's currents and counter currents in Medical Science.....	360	TESTER, Dr. P. O., case of mechanical obstruc- tion of the Intestines.....	251
Workman, Report of the Provincial Lunatic Asylum.....	393	Thoracic duct, on inflammation of.....	173
Braithwaite's Retrospect of Medicine.....	395	Throat, alum lozenges in affections of.....	267
Lindsay & Blakiston's visiting list for phy- sicians.....	395	Tobacco, on the use and abuse of.....	14
Ashton, on diseases, &c., of the rectum.....	440	Tolu anodyne.....	527, 572
D'Avignon's address before the Clinton Coun- ty Medical Society.....	450	Tongue, syphilitic tumours of.....	372
Walshe's Treatise on Diseases of the Lungs.....	451	Tracheotomy, report of 24 cases of.....	555
Winslow, on obscure Diseases of the Mind.....	492	Track of an animal in the Potsdam sandstone.....	388
Druitt's Principles and Practice of Modern Surgery.....	497	Transfusion in puerperal hæmorrhage.....	221
Churchill's Theory and Practice of Midwifery.....	498	Tubercle in the heart.....	371
Transactions of the Obstetrical Society of London.....	539	Tumblety fined.....	430, 473
Leidy's Elementary Treatise on Anatomy.....	543	Tumours erectile.....	408
Transactions of the Medical Society of State of Pennsylvania.....	544	Tumour, case of large fibrous, successfully re- moved.....	9
Sanitary Science, some points in connection with.....	205, 241	Turning by external manipulation.....	219
Scabies, Chloroform in.....	404	Ulcer of peculiar character attacking the eye- lids.....	462
Scalds and Burns, subnitrate of Bismuth in.....	464	Uremia, on.....	560
Scalds of the Larynx.....	273	Urine, chylous or milky.....	226
Scarlatina Anginosa, Pericarditis after.....	125	Urine retention of, in fœtus as obstructing la- bour.....	469
		Uterine catheterism, to produce premature la- bour by.....	224
		Uterine sinus, risk from penetration of air into.....	419
		Uterus, inversion of, successfully reduced.....	30
		Uterus, inverted twelve months successfully replaced.....	134
		Uterus, case of reduction of an inverted.....	221
		Uterus, retroversion of, in pregnancy.....	223

	PAGE		PAGE
Uterus, treatment of an inverted, after six months.....	319	Vomiting of pregnancy, pepsine in.....	266
Uterus, case of supposed congenital absence of.....	419	Water, cold, in treatment of Scarlet fever.....	297
Vagina, occlusion of, and absence of uterus supposed.....	417	Weather, how to foretell the.....	516
Valerianate of Strychnine.....	365	WOODS, Dr. D., On some points in connection with sanitary science.....	205, 241
VANCOURTLANDT, Dr. E., Discovery of an ancient burial ground.....	350	Wounds, permanent irrigation in.....	120
Varicose veins, on the cure of.....	89	Wounds, Dissecting.....	553
Varicose veins, of the leg, treatment of.....	459	Zinc, new method of preparing and applying the chloride of.....	92
Volume 2, announcement of.....	570	Zinc chloride, moulded into sticks for cauterization.....	404

THE

BRITISH AMERICAN JOURNAL.

ORIGINAL COMMUNICATIONS.

ART. I.—*Contributions to Clinical Surgery and Medicine.* By ROBERT L. MACDONNELL, M.D., Surgeon to St. Patrick's Hospital, Montreal.

1. *Two cases of "Closure of the Womb," successfully treated.*
2. *Two cases of the successful Treatment of "Epiphora," or the "Weeping Eye," by BOWMAN'S Operation.*

No. 1.

In the works of modern writers on midwifery, allusion is made to a closed state of the womb preventing the passage of the fœtus in parturition, and Ashwell in his valuable treatise on the Diseases of Women gives some instances that occurred in his own practice, and in that of the celebrated Naegclè, and Dr. Bedford of New York, also gives a couple of cases of a similar nature, where he operated with marked success. Such cases are now familiar to practitioners, but examples of *Closure of the Womb*, such as I am about to relate, have been very rarely met with, even in the practice of those who have devoted most attention to female therapeutics, for I have examined in vain the writings of Churchill,* Gairdner,† Isaac Baker Brown,‡ Duparque,§ Piorry, Matthieu,|| Picard,** Ashwell, Meigs and others for illustration of this lesion.

It is true that Ashwell remarks that "instances of secreted, but retained catamenia are full of risk, if the fluid cannot be evacuated, and even then there is abundant cause for anxiety," yet he does not give any example of the disease from his own practice. In the elaborate work of Colombat allusion is made to cases, scattered through some of the older French writers, but he does not appear to have met with any himself. In a note to Colombat's work translated by Meigs, the latter writer gives the details of a case in which he and Dr. Randolph were consulted. The

* Diseases of Women.

† On Sterility.

‡ Surgical Diseases of Women.

§ Maladies de l'utérus.

|| Etudes cliniques sur les Maladies des Femmes.

** Des Ulcérations et des Ulcères du col de la Matrice. [A work written, avowedly for the purpose of deprecating the use of caustics in uterine disease.]

uterus was closed by a dense membrane, the result of previous inflammation of the vagina and which had caused retention of the menses for nearly two years. After several attempts, the uterus was successfully punctured, and a large collection of dark thick fluid was evacuated. It is worthy of notice, that these experienced practitioners arrived at a correct diagnosis, and proceeded to the performance of a successful operation, after repeated examinations, extending over two years, and many preliminary steps in operative proceedings were taken, before the successful one was at last adopted. I think it right to draw attention to this fact, because I know from experience how difficult it is to arrive at a correct conclusion, not only as to the nature of the lesion, but also as to the best plan of treatment, unless we have made repeated examinations, and reflected carefully upon the features of the disease disclosed at each examination. This caution will not appear unnecessary to those who have read the scanty details of the few cases on record, in which it is evident that the true nature of the obstruction was frequently overlooked, and the difficulty of diagnosis much underrated, as well as the prompt and easy performance of the operative proceedings, in other instances, much exaggerated.

Case 1. I was summoned to a distance from Montreal to visit a young married lady, on May 13th 1857, who had been confined to her bed for some months, and who was reduced by suffering to a state of great debility. There was much obscurity about her case; she and her husband were under the impression that she was five or six months pregnant, as the menses had not appeared during that time, but as she felt much pain and uneasiness in the lower part of the abdomen, with difficulty of making water, pain and fulness over the region of the ovaries, accompanied by a constant creamy discharge from the vagina, they felt alarmed that all was not right, and a gradual wasting of flesh and loss of strength, gave rise to much apprehension.

I need not state the details of the case more fully than to say, that I did not detect any symptom of pregnancy, and there was no evidence whatever of an enlargement of the womb, or an accumulation of fluid in its cavity,—the abdomen was soft, but painful on pressure above the pubis, and over the inguinal regions; the stethoscopic signs of pregnancy were absent, there was however, inflammatory enlargement of the cervix uteri extending to the body of the organ, acute vaginitis, attended with so much pain as to render it almost impossible to make a careful examination;—the condition of the urine did not prove the presence of cystitis, though the efforts to empty the bladder were very painful, and an equal amount of suffering was endured when the bowels were moved.

As before stated, the patient was much reduced, had not been able to leave her bed for four months, and her nervous system was much deranged by the quantities of morphine she was obliged to take, to alleviate her sufferings. I could not remain longer than a day with her, but made arrangements for her removal to Montreal, so soon as her condition would permit; in the meantime, scarification of the cervix uteri and the application of nitrate of silver to the inflamed surface, and lotions of a sedative and astringent nature were employed. The scarification and cauterization produced almost instant relief, and though the morphine was discontinued, she slept well that night without a narcotic, and

was able to leave her home, and come up to Montreal by steambout, a distance of one hundred miles, four days after my visit. The plan of treatment, now adopted was such as is usually employed in similar cases, and in less than a fortnight she was quite well and was able to return home.

From the time of her departure from Montreal, in June, 1857, she enjoyed good health till November of the same year, though subjected to a great change of climate and difference in mode of life, having removed to a new settlement in the State of Minnesota. About this time, symptoms similar to those already described, set in. On this occasion, there were also very severe lumbar pains, which induced her medical attendants to suppose that some form of renal disease existed. Not deriving the benefit from treatment that she expected, she determined to place herself again under my care, but having to travel nearly four hundred miles over bad roads before reaching the nearest point where navigation commenced, she was not able to proceed any farther, and was compelled to seek medical advice at that place, where she remained from January till July, 1858.

The nature of her malady seems to have been well understood by her medical attendant, but whether the treatment adopted, which consisted of severe cauterizations, with local use of acids, creosote, &c., had any effect in producing the condition of parts afterwards observed, it is difficult to say. Notwithstanding this active local treatment, her general health became worse, and the menses which had appeared but once since the preceding September did not return.

When I saw her again, July 28, 1858, she was so much changed that I did not at first recognize her. She was thin and weak with a sickly anæmic colour, and her features indicated extreme suffering. She pointed out what she thought was a marked sinking in of the right hypochondriac region, but which it was not difficult to perceive was owing to an excessive elevation of the corresponding inguinal region, where a well defined flattened ovarian enlargement was easily detected, and from this point shooting pains extended at times to the loins and down the thighs. She had also, almost daily, severe bearing down pains which obliged her to resort again to large doses of morphine. This tumefaction was painful on pressure, and occupied a space which might be covered by the hand.

On examination by the speculum, the whole of the vagina presented a pale appearance, and the cervix was pale and without much induration, and was evidently much shorter than when I last examined her. Not being able to find the os uteri, I was not a little surprised to detect on more minute examination the next day, that the os was closed by a dense and resisting membrane, yielding to pressure of a bougie not more freely than any other part of the cervix, and evidently composed of a thick, tough substance, resembling, if not identical with, the neighbouring structure of the cervix, and not presenting the puckered, glistening appearance of a cicatrix, or of the bands usually observed in this region. I may also remark that a decided diminution in the capacity of the vagina had taken place since I last saw her, for the instruments which then could be introduced with ease, were now applied with the greatest difficulty, and smaller ones had to be employed. In fact a degree of contraction, the result of excessive inflammation, had evidently taken place in all the structures.

There was no central depression or mark by which the site of the os tincæ

could be discovered. The uterus itself was not larger than natural, and examination by rectum and with a catheter in the bladder, did not disclose any increase of size. It was moveable and not painful on pressure.

It was not difficult to account for the want of a uterine tumour, for the anæmic condition of the patient, and her excessive debility, easily explained why the menstrual fluid had not been formed in any considerable quantity for several months previous.

The general treatment consisted in the employment of blue pill in small doses, combined with hyoscyamus and rhubarb; the application of a sinapism for about fifteen minutes over the inguinal region, and repeated every four hours. This plan of counter-irritation was continued for several days, and was productive of much relief; rest in the horizontal position was also enjoined. Under this plan of treatment, followed by tonics and chalybeates, the general health became much improved, and the inguinal tumour disappeared, yet distressing bearing down pains occasionally tormented her, particularly at night, for the relief of which, she was obliged to use morphine and æther. I now determined to remove the obstruction that existed at the entrance of the womb, but difficulties presented themselves, which were however successfully overcome by the following measures. I need not point out to the reader that the plan recommended by some writers, of plunging a trocar into the womb, without considering whether it follows the natural canal, and merely enters the womb at any part, was not applicable to this case, because there was no evidence of enlargement to justify such a course, and the mobility of the organ would have rendered such an operation difficult as well as extremely dangerous, and I am quite certain that such a procedure can give only temporary relief, and that unless the mouth of the womb be discovered and opened, and the natural passage from the vagina to the body of the womb be restored, the future accumulation of the menses cannot be prevented, nor pregnancy be rendered probable, and consequently the future condition of the womb must soon resemble its present state. The following plan was therefore adopted:—After careful examination, the cervix was engaged in a cylindrical speculum, a central spot was ascertained, which as it afforded less resistance to the pressure of a fine probe, was presumed to indicate the original situation of the os; around this some cerate was painted, leaving a circular space about the size of a split pea uncovered by the ointment; to this was applied a piece of wood sharpened like a pencil, and which had been dipped in potassa fusa, rendered deliquescent by exposure to the air. The piece of wood was retained firmly pressed against the membrane for a short time and then withdrawn. A sponge charged with vinegar was freely applied, so as to neutralize the alkali, and prevent its destructive action extending beyond the limits proposed.* In a few days a small slough fell out, but the canal was not yet reached. The operation was repeated, and after a few days

* It is to Dr. Henry Howard the oculist and aurist, that I am indebted for this method of applying potassa fusa. He told me he had frequently applied it in this manner to granulations of the membrana tympani, and having always poured vinegar on the eschared surface, had never remarked the action of the remedy to extend beyond the surface, brought intentionally into contact with it.

more, a fine catgut bougie could be introduced into the cavity of the womb without causing any pain. One of Gutliries urethratomes was now introduced, two incisions made, and the calibre of the canal was thus enlarged to an extent to admit of a No. 12 gum elastic bougie being passed daily, which was allowed to remain for some hours. After some time one of the largest sized of Simpson's uterine pessaries was introduced, and worn without any inconvenience. Her general health became much improved, the anæmic colour was followed by one of a healthy florid hue, the bearing down pains disappeared, though the menstrual discharge did not take place whilst she remained here, yet she had discharges of leucorrhœal fluid from the uterus at the periods corresponding to the usual return of the catamenia, and since her return home, she has menstruated regularly, and enjoyed uninterrupted good health.

The ease and safety with which the normal canal was discovered in the above case, and the success that attended the various steps adopted for restoring it to its natural dimensions, recommend this plan as far preferable to the hasty and dangerous one of puncturing the womb, without the certainty of the trocar following the course of the natural passage.

Case 2. A married woman, the wife of a trader in Saratoga, aged about 35, of a stout, plethoric habit, consulted me in August last, for the relief of a "closure of the womb," with retention of the menses, of *nine years duration*. She had consulted surgeons in various cities in the States, but had not obtained relief from any, and though the consciousness of her condition was before her mind constantly, yet as she suffered but little till lately, she had not allowed it to interfere with her usual occupations. The history of her case was as follows: Nine years ago she was delivered by instruments, after a tedious labour, of a dead child. Her recovery was slow, and much inflammation of the parts ensued. *She never menstruated after this illness*, and paid but little attention to this circumstance till about three years ago, when she consulted me. I then found the vagina closed, about half way between the orifice and the usual site of the cervix, by a strong membranous septum, which I divided by a crucial incision, in the presence of Drs. David and Howard. A small quantity of bloody fluid escaped, not having the character, however, of a pent-up collection, and it continued to flow for a few days. Circumstances unnecessary to relate, caused her to return home sooner than she expected, and before any further steps could be taken for her relief. During the next three years she consulted surgeons in several places, and took various remedies to induce menstruation, but all to no purpose. When I saw her this summer, the abdomen was much enlarged, and a well defined tumour, corresponding in situation and size to that of the uterus, at the seventh month of gestation was clearly detected. The vagina was of the usual dimensions,—it terminated in a cul de sac, preventing any trace of the cervix being exposed either to sight or touch, yet the existence of a hard, heavy body, could be detected through this diaphragm-like structure. This septum was traversed by strong shining striæ, concentrating at a point. The condition of the bladder and rectum was normal. All the functions were performed with regularity, and to look at her, one would suppose she enjoyed excellent health, yet her sufferings were of the most excruciating character, and came

on daily about noon, and lasted for three or four hours leaving her in a state of exhaustion. During these attacks, which partook of the character of labour pains, and those caused by the presence of a stone in the bladder, and the passage of a renal or biliary calculus, it is impossible to give the reader an idea of her tortures. She used to writhe with agony, roll herself on the floor or bed, as if suffering from the passage of a calculus, then hold in her breath, and force down with intense energy as if in a labour pain, and during the existence of this sort of pain, the external genitals were protruded and swollen, and the rectum pressed upon and flatus occasionally expelled. Constant desire to empty the bladder accompanied these attacks, and frequent vomiting was also present. At times all her force seemed employed in expulsive uterine efforts, during which, an alarming degree of congestion of the face and neck, usually came on, attended with foaming at the mouth, the next moment she would give utterance to piercing cries and shouts, so loud that a crowd has been frequently attracted around the house in which she resided. The duration of these attacks seemed but little influenced by narcotics, to which she had been so accustomed, that large amounts were taken without effect. Hot fomentations and hot gin punch, seemed to relieve her more than anything else. She had a decided objection to the use of chloroform, which was administered in large doses internally notwithstanding. So much did these attacks resemble at times the symptoms of stone in the bladder, that I sounded her frequently, under the impression that a stone was present in addition to her other ailments, but never detected one, though I examined the bladder when empty, when distended with urine, and after I had fully distended it by injections of warm water, and I also examined the urine frequently, but discovered only a copious deposit of urate of ammonia.

I proceeded in this case as in the former one. I made a slough with the pencil-shaped piece of wood, dipped in the fluid potassa fusa, and when the slough fell out, I enlarged the opening by tents of gentian root, until a full sized gum-elastic bougie could be introduced. This was done daily without giving exit to any fluid, and without diminishing the frequency or severity of the attacks, and what surprised me very much was, that though a flexible bougie could be introduced to the extent of four or five inches, yet a metallic one was arrested at a distance of one inch and a half from the orifice. This circumstance convinced me that the mouth of the womb had not been yet reached, and accordingly I made the following investigation. I again sounded her, in the empty and distended condition of the bladder, and was satisfied that no stone was there, and being equally satisfied of the empty condition of the rectum, I introduced a bistoury into the opening in the membranous structure already described, and enlarged it to a considerable extent by a crucial incision. I now found that above this strong membrane I could detect the cervix uteri, whose os was closed by a dense structure into which I pushed a bistoury to some distance, and made some crucial incisions—but did not penetrate sufficiently to enter the cavity of the womb. The fundus of the womb was now pushed down steadily by the left hand, whilst the index finger of the right was pushed, in a boring manner, upwards, and after a continuance of these manœuvres for a few minutes the finger entered the cervix, and a gush of dark colored odorless fluid, like treacle flowed out in great

abundance. The quantity which escaped after this operation was about half a gallon, but it continued to flow freely all that day, and slowly for two or three days afterwards. The escape of the fluid was followed by a subsidence of the abdominal tumour, and a discontinuance of the attacks she had suffered from daily. She remained in Montreal for two months after this. The menstrual fluid appeared to flow for a day or two after the operation, but on the next monthly return, it was discharged freely for five days, and she experienced no uneasiness whatever. Since the operation I have introduced bougies every two or three days to keep open the passage and have met with no obstruction.

I need hardly point out to the reader how much more satisfactory the plan of treatment adopted in the above cases was, than if in accordance with the precepts of some, I had plunged a trocar into a small, moveable, and empty uterus, under the supposition it contained a collection of menstrual fluid, or if in the second case a trocar had been introduced, to evacuate a collection, it had first traversed a dense intervening structure, and then gone, it is difficult to say where,—perhaps into the bladder, perhaps into the rectum, mayhap into the uterus, but most improbably, through the natural channel from the vagina into the uterus. The records of surgery furnish us with numerous examples of the dangers of this heroic treatment. At one time a surgeon taps the bladder instead of the uterus—at another, the post-mortem examination shows that the uterus was perforated and likewise the rectum. It is unnecessary, however, to multiply instances of the injuries that have been inflicted on surrounding parts by the incautious use of cutting and perforating instruments in this locality. The cautious plan of first perforating the obstructing structure by making a slough and then searching for the natural channel, and enlarging it either by incision or dilatation, so as to restore it to its natural condition, as well as to afford an outlet for the contents of the uterus, when that organ is distended by pent up menstaual fluid is the plan of treatment I intend pursuing, and is the one I recommend to the notice of the profession.

BOWMAN'S OPERATION FOR EPIPHORA.

MR. BOWMAN'S operation for the cure of Epiphora, or as it is now frequently called by English oculists the "Weeping Eye," is certainly one of the greatest improvements that has been introduced in this department of surgery for some time, and is of such easy performance by any operator familiar with the anatomy of the lachrymal apparatus, that it is said to have carried the treatment of this affection from the hands of the specialist to those of the general surgeon. As I am not aware of this operation having been performed in this city, except in the following cases, I will briefly relate their particulars.

Case 1. Mrs. —, aged 33, from a village on the Ottawa River, came to consult me, under the impression that the old operation would be performed for the relief of an Epiphora of four years standing. The canaliculus being quite free and the weeping still continuing, I proposed that Bowman's operation should be performed, to which she at once consented. Assisted by my pupil, Mr. Fulford, I performed it on Nov. 19th in the manner directed. Probes

were afterwards introduced, gradually increased in size until the largest one could be passed and retained in the lachrymal duct without inconvenience. At the end of ten days she returned home, without any symptoms of her former malady.

Case 2. Mr. —, aged 35. Has had Epiphora for four years. Annels probes have been frequently passed by myself, and injections employed, but the disease still continued. I recommended Bowman's operation and it was accordingly performed on Dec. 8th.

The next day the sides of the wound had united, but were easily separated* by a probe. Probes of the required sizes were daily passed for the next ten days. One day after the operation the tears ceased to flow down the cheek, and he suffered from his former malady no longer.

As some of my readers may not be acquainted with the nature of this operation which is now the established one for the disease in question, to the exclusion of all others, I will quote from the author's article the directions he has laid down for its performance. I need not state that it should not be attempted by any one who is not familiar with the anatomy of the parts, and who is not in the habit of performing delicate operations upon the eye and its appendages. Indeed Mr. Bowman more than once warns the inexperienced operator to be cautious in attempting this method of treatment, and points out the bad consequences that may ensue from the rough and clumsy efforts of the awkward or rash surgeon.

The operation consists in passing a small director through the canaliculus, and then slitting it up by means of a cataract knife as far as the caruncle. "And the probe is raised on its point out of the canal, to make sure that the edge of the punctum has not escaped division."†

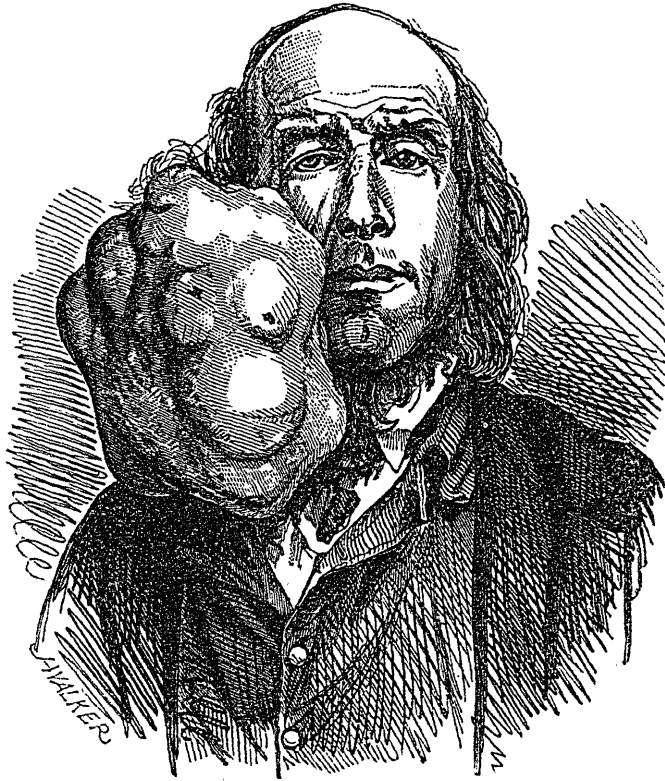
"Having slit up one or both puncta, as may seem desirable, the canals are at once probed to ascertain whether they are of full size." In fact the future treatment of the case must be regulated on the same principles as the management of stricture of the urethra: probes are passed from day to day, gradually increased in size, and the obstruction having been carefully removed, the tears find an easy channel to the nose, and the annoyance under which the patient may have laboured for years is put an end to.

It is unnecessary to point out how much preferable this operation is to the old one. There is no wound of the skin, the slitting up of the canaliculus causes no deformity, and it is not even perceptible, whilst we get rid of the nasty style with its black head, which has always been such a disagreeable object not only to the patient but to the spectator,—besides imposing on the former the necessity of frequent removals and frequent cleansings, attended sometimes with both pain and difficulty in re-inserting it.

Montreal, December 20, 1859.

* To avoid this union of the divided walls of the canaliculus, Mr. Crichton recommends us to snip off a portion of the membrane forming it, with a small scissors.

† Ophthalmic Hospital Reports.



ART. II.—*Case of a Large Fibrous Tumour, successfully removed.* By HORACE NELSON, M.D., late Editor of *Nelson's American Lancet*, and former Professor of Surgery in the University of Vermont, &c.

Tumours of various characters—fibrous, sarcomatous and schirrous—developing themselves in the parotid region, and calling for their extirpation are occasionally met with, and the result is heralded as a removal of the gland *itself*, the operator justly claiming a place in the Temple of Surgical Fame; but, unfortunately, when the facts are closely analysed, and proper anatomical deductions made, one must come to the conclusion that a tumour—at times very large and requiring very nice and guarded dissection—has been removed, it is true, but it was not the parotid gland, as that body was *absent*, having been displaced, or totally made to shrink and disappear by absorption from the pressure of the mass developed in its place. The recital of the following case is just such a one, and might justly claim a place with some of the recorded operations of extirpated parotid gland, were it not unfortunately that its removal did not necessitate the division of the external carotid artery and its two terminal branches the temporal and internal maxillary, the transverse artery of the face, the anterior and posterior auriculars, the temporal vein, the communicating branch of the internal and external jugular veins, the auricular branch of the cervical plexus, and lastly the section of the

portio dura of the seventh cranial nerve, with its inevitable result—paralysis of the side of the face, and one of its rather comical concomitants, inability to close the eyelid of the affected side. Such, therefore, are the only physiological results to be expected in *every case* of total removal of the parotid gland.

John Sherman, aged 47 years, a farmer, residing in the northern part of Clinton County, some thirty miles from Plattsburgh, and well known as the man with the “big lump on his face,” called at my surgery on the 16th Oct. 1853, and requested my advice in relation to a tumour that had been growing on the side of his face and neck for over twenty years. He was a man of excellent constitution, very athletic, and over six feet in height, had never been ill, though for some weeks past he was suffering very unpleasantly from the effects of the enormous growth occupying the parotid, lateral facial and cervical regions. From careful examination and questioning, I ascertained the following facts:—A couple of years after he commenced shaving, he noticed a small lump, the size of a pea, just in front of the ear, which he repeatedly cut with his razor; and this happened so very often that he had, in the end, to use a pair of scissors to remove the hair and avoid the bleeding consequent upon the slightest wound. The tumour kept slowly though steadily increasing, and for years he had consulted, in turn, pretty nearly all the medical men of Clinton and Franklin Counties, till it had reached to such an enormous size that they dissuaded him from entertaining the idea of submitting to such a severe and certainly dangerous operation as the removal of his old friend. However its great size, dizziness of the head, with more or less pain in the face and neck, his incapacity of doing the least labour having to support the tumour with his right hand when walking or stooping to relieve the difficulty in breathing and swallowing from its pressure on the trachea, esophagus and large bloodvessels and nerves of the neck, he had come to the determination of submitting to its removal, provided there was anything like an even chance of success.

The dimensions of this appendage to his otherwise not unpleasing physiognomy were by accurate measurements as follows:—*fourteen inches* in length, *twelve inches* in width, *ten inches* thick, and a circumference at its free border of *forty-seven inches*, while its attached surface to the face and neck measured *thirty-one inches*. Commencing near the external angle of the right eye, it covered the whole side of the face from the commissure of the lips to the base of the jaw, thence downwards covering the entire lateral surface of the neck and overlapping the trachea, its attachment terminating opposite the first rib, and two inches more, unattached, limited the inferior boundaries of this extraordinary growth; passing backwards and upwards the tumour spread back upon the shoulder, the posterior cervical region, over a portion of the occipital and temporal bones, pushing upwards, displacing and stretching the ear which measured some six inches, full three inches more than its congener. The tumour was very hard, tense, variously lobulated, quite insensible to pressure except at its median and anterior portions, perfectly immovable in its facial attachments, and much more moveable as it proceeded downwards; the integuments were highly vascular of a deep red colour, and bleeding freely whenever injured, a circumstance that happened very frequently, as from its great size and awkward situation it was always

in the way. It was after a pretty sharp hemorrhage, from a tear against a nail while Sherman was passing through a narrow door, that he resolved to run the risk of the operation. Its very slow and gradual growth, the absence of all lancinating or darting pain, and the non-complication of the cervical glands together with his unimpaired constitution, pointed, at once and most unequivocally, the diagnosis that the tumour was not of a malignant nature; and, therefore, if he did not succumb under the operation, or from its immediate consequences, it would never be reproduced.

Having been fully apprized of the very great danger attending the removal of the tumour, as also that it was the only possible chance—small as it was—of prolonging his life, and freeing him from suffering and misery, he at once resolved to submit to the ordeal, and went home to settle some matters, preparatory to his return to Plattsburgh on the 5th Nov. 1853. Punctual to the appointment he reported himself on the 3rd of that month, and the preparatory steps were taken for the operation: he was placed upon low diet, removed from excitement of any and every description, and the bowels pretty freely acted upon. The first indication was to guard against the loss of blood, which I had a right to presume would be great; and the most natural, at the same time the most effectual, means of meeting this indication presented itself by the ligature of the external carotid artery, thereby at once controlling and cutting off the direct supply of blood to the tumour and parts immediately adjacent. This plan was not adopted for a two-fold reason: the first, the situation of the tumour directly over the course of this vessel, requiring that the operation should be more than one-half completed before the artery could be exposed; and, secondly, in the event of success in ligating the vessel, I doubted much whether any commensurate benefit would accrue, knowing in such cases that the anastomotic circulation is extremely vigorous and free, and that the operation would be not only more complicated but also much more lengthened. The sequel will prove that this view was correct.

The necessary preparations were made, the various instruments, ligatures, &c., being close to hand, assisted by my excellent friend DR. FRAS. J. D'AVIGNON, of Ausable Forks, my late colleague Professor E. KANE, and my Brother who had come from Montreal, in the presence of several professional and other friends, I proceeded as follows:—Sherman was laid on a table, the head slightly elevated with pillows, and standing behind, an incision was made from the lowest or thoracic portion of the tumour, three inches from its attached border upwards along the neck and face to the corner of the eye; taking the knife in the left hand, the integuments along the lobe of the ear were severed, and the incision carried downwards and backwards to the starting point, consequently dividing the integuments in the whole extent of the tumour; the dissection was commenced below and keeping close to the tumour, at times with the edge of the knife, at others with its handle, and again with the fingers, the anterior portion was detached to nearly half of its extent. Passing now above, the first or second cut of the knife was followed by a gush of blood from a large artery (most probably the anterior auricular, very much enlarged,) which was at once tied—another cut and another ligature, this happened four or five times, and were the only ligatures applied dur-

ing the operation; the bleeding—rather free—from numerous small arterial and venous branches was effectually controlled by the application of ice. I had now loosened the tumour from its attachments to the face, and had reached the mastoido-maxillary space; at this stage the dissection was continued by liberating the ear, its cartilaginous portion being strongly and firmly attached to the tumour, from thence it was quickly and without difficulty separated from its attachments to the temporal and occipital bones, and from the posterior region of the neck. Now the process was somewhat varied, at times I worked at the anterior, at others at the posterior surface, then above, then below—my stout friend, D'AVIGNON, pulling up and down with both hands to assist the dissection which was concluded almost solely with the handle of the knife or by tearing with the fingers. The tumour was now detached save at one point—back of the jaw—which appeared as if it were the pedicle; hence here should be the source of all evil, here must be the passage of the nutrient vessels; a large ligature was in readiness, and seizing the pedicle between the fingers of the left hand, it was divided with one stroke of the knife—the tumour removed, but there was no artery!

We could now ascertain the extent of the deep relations of this large mass: the length of the incision extending from the eye to the first rib was over thirteen inches in length, and uncovering the zygomatic process, the masseter muscle, ramus and angle of the jaw on one side, and on the other the mastoid process with origin of sterno-cleido-mastoideus, lateral portions of occipital bone, part of occipito-frontalis and trapezius muscles; the parotid region presented a deep chasm, at the bottom of which could be seen the styloid process and the three muscles attached to it, the external carotid could be distinctly felt and seen; the sterno-cleido-mastoideus was exposed throughout its extent, as also the anterior and posterior inferior cervical triangles limited above by the omo-hyoideus muscle. Such were the parts implicated and exposed in this tedious dissection. But a comparatively-speaking small quantity of blood was lost; the wound having been allowed to become glazed, the integuments were brought together by nine or ten sutures with adhesive slips between each of them, a compress and then a carefully applied bandage completed the dressing, and Sherman walked to his bed, after having been on the table less than twelve minutes.

No chloroform was administered, he objecting strenuously to its use, as he was anxious to know and see what was going on, and right well did he do so, never having even so much as moved a hand or made a loud sigh. The tumour weighed a trifle over *thirteen and a-half pounds*, and is now, with my cabinet, in the museum of the University of Vermont, at Burlington. It was of the true fibrous character, and is probably the largest tumour—so far as I can ascertain—ever removed from that portion of the face and neck. The one nearest to it is that of Liston, which weighed twelve pounds, and is undoubtedly the one figured in his *Practical Surgery* (Philadelphia Edition, page 219). There is another case on record, though the dimensions are not given, by GOODLAND communicated to the Medical and Chirurgical Society of London, on the 6th Feb., 1816, and published in the First part of the Seventh Volume of the *Transactions* for that year.

It would be useless to detail day by day the after-treatment, which, as in all

these cases, was directed to meet either the local or general indications as they presented themselves; suffice it to say that a most satisfactory and unexpected cure took place by first intention; on the tenth day the sutures—excepting two in the neck—were removed, and no suppuration save a trifling oozing at the bottom of the wound. On the fifteenth day he walked down two flights of stairs to the sitting-room of his boarding-house where he received the congratulations of several friends. This condition of things continued till the twenty-sixth day, when on entering his room, and before I had time to say "Good morning, John," I found myself most unceremoniously thrust out of the room into the hall, his wife promptly and closely bringing up the rear! On enquiring as to the cause of this summary process of ejection, she informed me that, at times, for a few days, he had acted very strangely, and fancied that he was the victim of a conspiracy; that as he had not died during the operation or immediately after it, we were determined to poison him. From this day he obstinately refused all and every kind of food or drink, and frequently would remain for hours alone in his room, having turned every one out, and pacing the floor backwards and forwards, supporting his head with his right hand as he had wont to do for many years. This state of mental excitement kept increasing till the 4th December, when, from debility and exhaustion, he was compelled to take to his bed and died on the morning of the 9th. All endeavours to coax him to take food or medicine were of no avail, and to the last he strenuously declined having anything to do with me; with the exception of this hallucination he was perfectly rational; in fact he literally starved himself to death!

This unfortunate and most unexpected termination was the more to be regretted as every thing connected with the operation and its sequences were so flattering and encouraging. One word more and I have done; this case, as mentioned in the introductory remarks, is interesting from the fact that the tumour had sprung from the parotid region, had usurped the place of the gland, and by its great and continued pressure had caused its gradual atrophy, till it had at length been entirely removed by absorption; and as much as I regret having missed placing upon record another case of *total* extirpation of the Parotid gland, I must submit to the dictates of anatomy and Physiology which do not permit me to entertain the slightest idea of such a thing, in as much as poor John's external carotid artery was not divided, and he gently closed both eyes for his long last sleep.

27½ Little St. James Street;
Montreal, January 2nd, 1860.

ART. III.—*Lithotomie sur la femme. Fracture spontanée d'un calcul vésical,*
par L. T. BARDY, L. C. P. S., J. C.

Il y a quelque temps une jeune fille, Âge, 32, vint me consulter pour une maladie des voies urinaires dont elle souffrait depuis son bas âge. Au récit qu'elle me fit, je soupçonnai la présence d'un calcul vésical: je pratiquai le cathétérisme, et je reconnus de suite l'exactitude de mon diagnostic. Je fis part

de ce fait à mon ami le Dr. Tessier, qui après un examen judicieux diagnostiqua la présence de plusieurs calculs. Après nous être assurés de leur volumes, nous nous décidâmes à opérer. La patiente *in situ*, liée et complètement sous l'influence du chloroforme, nous adoptâmes le procédé latéral. Après avoir introduit une sonde cannelée dans la vessie, je glissai un bistouri dans l'urètre jusqu'au col de la vessie que je retirai, en incisant latéralement, en bas du côté droit, le long du rameau du pubis, l'espace d'un pouce et demi; la sonde retirée, nous dilatâmes graduellement au point d'introduire librement le doigt dans la vessie et alors au moyen de tenettes, je retirai un premier, puis un second morceau qui auraient dû faire partie d'un seul et même calcul. L'opération terminée sans encombre, nous laissâmes dans la place une canule qui fut enlevée quelques jours après, et au bout de vingt jours elle était à ses occupations. Tout ce qui précède ainsi que la composition du calcul, qui est d'acide urique, et de forme ronde, oblongue, un peu déprimée, son volume d'un pouce et $\frac{5}{8}$ dans son plus grand diamètre, et un pouce et $\frac{1}{2}$ dans son plus petit, son poids qui n'exécède guère une once et demie, tout cela n'offre rien de remarquable; mais ce dont nous ne pouvons nous rendre compte, c'est la fracture spontanée du calcul, et la cause de cette fracture. La partie fracturée est égale au tiers de la surface coupée directement dans sa longueur. L'incrustation des surfaces fracturées indique clairement que l'accident a dû être antérieur à l'extraction du calcul. Les surfaces fracturées ne s'adaptent pas exactement, mais suffisamment pour nous laisser aucun doute sur leur corrélations. Nous avons parlé de ce phénomène à plusieurs médecins, qui pour la plupart ont paru en faire guère plus de cas que des pierres à macadamiser les chemins.

A part quelques cas de Sir Benjamin Brodie et de Crosse, nous ne trouvons rien sur ce sujet dans toute notre chirurgie non plus que dans nos journaux de médecine. Crosse pense que les fractures spontanées de calcul sont dues à une contraction de la vessie. D'autres attribuent cela à l'usage de certaines eaux minérales; dans les cas de Sir Benjamin Brodie, non plus que dans celui-ci, on ne peut invoquer cette cause. Dans les cas où il se trouve plusieurs calculs, le choc des calculs les uns sur les autres pourrait les fracturer, mais quand il ne s'en trouve qu'un seul, comme dans ce cas ci, comment expliquer la chose. Si vous, Mr. l'éditeur, où s'il se trouvait parmi vos collaborateurs ou autres, quelqu'un qui nous mit sur la trace d'informations touchant ce sujet je l'en remercierai bien cordialement.

Québec, 24 Décembre 1859.

ART. IV.—*On the Use and Abuse of Tobacco.* By WM. MARSDEN, M.D.
Fellow of the Medical Society of London, of the Berkshire Medical Institute,
member of the Montreal Pathological Society, fellow of the London Medico-
Botanical Society, member Col. Phys. and Surgeon, L. C., &c., &c.

The re-appearance of a Medical Journal in Lower Canada is a subject of congratulation to all classes of the community,—to the public no less than to the medical profession, and you Mr Editor, are entitled to the thanks and

support of both, for having again assumed the editorial yoke, notwithstanding your former losses. The *Medical Journal*, although intended to be the organ of the medical profession, (which it has ever been your aim to uphold,) ought nevertheless, to be the journal of the public; and no one having any pretensions to literature or science can, or should be without it. Physics and physiology are the domain of every educated man. Having premised thus much, I will offer no excuse for giving you an article on the "Use and Abuse of Tobacco," in the course of which I shall draw upon Lizar's admirable *brochure* of that name, like him, satisfied if my remarks have any appreciable tendency in arresting the progress of excessive smoking, by drawing the attention of the public to the subject. It is difficult to estimate "says he in his notice to the eighth edition of his work" either the pernicious consequences produced by habitual smoking, or the number of its victims among all classes, old and young. The enormous consumption of Tobacco can be ascertained from yearly returns, made by the Government Custom-House, but its physical, moral and mental deteriorations, admit of no such tangible analysis. These, although certain, are slow and imperceptible in their development, and it is therefore impossible to ascertain the extent of the injury, which the poisonous weed inflicts upon the public health, or the alteration it must necessarily effect upon the character of its inhabitants. The consumption of Tobacco is stated to be, in 1853, 29,737,561 pounds, thus showing an allowance of considerably more than a pound, on an average, to every man, woman, and child, in the United Kingdom of Great Britain and Ireland. The prevalence of smoking has been of late greatly on the increase, and the use of the narcotic commences with the young from mere childhood. Such a habit can not be more lamented than reprobated. The injury done to the constitution of the young may not immediately appear, but cannot fail ultimately to become a great national calamity.

I was asked a few days since by one of our ablest surgeons and most distinguished physicians, now retired from an extensive practice in the enjoyment of its sweets, whether I had remarked the decided increase in the number of deaths, from diseases of the brain since my coming into practice. Having admitted the proposition, my friend, whose shrewdness and quickness of perception is characteristic, was disposed to assign as the principal cause, the character and quality of the spirituous liquors so largely indulged in by all classes, adding that pure wine is now scarcely ever drunk, its substitute being vile adulterations or alcoholic manufactures. My own opinions and experience, however, turn to another cause, the excessive use of Tobacco, and had I not since laid my hand on Lizar's invaluable little book, my own observations in the course of a long and extensive practice, in which the treatment of chronic disease formed a large portion, would have furnished me with proofs innumerable.

For two or three years past, the discussion of what has been called the "tobacco question," has engaged the attention of non-medical, as well as medical writers in Great Britain, and my quondam-fellow student, Mr. Solly, now a surgeon of St. Thomas' Hospital, has taken a prominent part in the discussion, and although the evils of excessive smoking prevail as extensively here as in Great Britain, the medical profession, to which the public looks as the rational

exponent of sound principles in relation to man's health and physical habits, has hitherto been almost silent on the subject. If any medical man feels, that by simply raising his voice, he may be the means of saving the life, or preserving the health of a single fellow being, who may be unconsciously shortening his days, by indulging in what he calls an innocent pastime and a luxury, he is culpably negligent if he remains silent. The profession, says Mr. Solly, have no idea of the ignorance of the public regarding the nature of Tobacco. Even intelligent, well-educated men stare in astonishment, when you tell them, that tobacco is one of the most powerful poisons we possess. Now is this right? Has the medical profession done its duty? Ought we not as a body to have told the public, that of all our poisons, it is the most insidious, uncertain, and in full doses the most deadly?

Mr. Lizars enumerates the constitutional effects of tobacco by stating, that they are numerous and varied, consisting of giddiness, sickness, vomiting, dyspepsia, vitiated taste of the mouth, loose bowels, diseased liver, congestion of the brain, apoplexy, palsy, mania, loss of memory, amaurosis, deafness, nervousness, emasculation and cowardice.

Frightful as is this list of ills, I can, from my own experience, endorse its accuracy, and yet, how large a number of our own profession are addicted to the vice, and how fatal must be the effect of their example upon the unthinking. It forms a sort of pretext for the indulgence, that has no sounder argument to support its pretensions, than Moore's excuse for its sister habit, drinking:—

“Let the toast pass,”

“I'll warrant we'll find an excuse for the glass.”

The medical man who indulges in the practice of smoking, is not, if Lizars be an authority, the only sufferer as, “surgeons, especially operating surgeons, who smoke tobacco, cannot have the same cool head and hand, as he who never uses the weed. The late Mr. Liston never smoked. Before performing any important operation he took a gallop over the Pentland hills to brace his nerves.”

Dr. McCosh, formerly a professor of the Calcutta Medical College, and an experienced surgeon of the Bengal Medical Staff, says among other things, that the very difficulty of learning to smoke, the headache, and nausea, and vertigo, with which that is acquired, are enough to shew that the habit is most injurious; only made endurable by long habit, and persevered in from want of some more congenial occupation. Habitual smoking, too, often leads to habitual drinking: the drain upon the system must be replenished, and brandy and water is the succedaneum. Some pretend to gainsay this, and maintain that they do not spit; but this only shews the torpor of the salivary glands; for if they were in a healthy state, saliva would be as copious, as when they were learning the habit.

Some smoke from medicinal motives, and to produce a laxative effect, or from absurd notions that it neutralizes malaria: but these same persons would grumble loudly, at being obliged to take a pill every evening, to produce the same effect.” The danger of smoking for medicinal purposes is evident from its continued and increasing use, as well as alcohol for the same end. Remedies

so insidious ought never to be adopted, where others can be used. On this point, Professor Laycock, of Edinburgh University, says in a most temperate paper in the *Medical Gazette*, 2d October, 1846, "I have known many instances, in which I was unable to prove, that the ordinary use of tobacco did any harm; I have known many more, in which *I could prove that it did do harm; and I have not known any good from it, that might not have been obtained from less objectionable means.*

Lest I should extend this paper to too great a length, on so fertile a subject as the one chosen, I will only make a few more brief extracts from Mr. Lizars's book, in order to support the view I have enunciated, that tobacco is the fruitful source of paralytic affections. "Congestion of the brain, says he, which is a frequent precursor of palsy, occurs almost only in those much addicted to smoking, in whom a cigar is never out of the mouth, &c. It is denoted by headache, want of sleep or rather restless nights, and occasionally flushing of the countenance. Apoplexy, he adds, has been taken notice of by several authors supervening to the smoking of tobacco, also to the immoderate use of snuff, &c. The form of palsy, produced by excessive smoking, is generally hemiplegia, and it is almost always incurable. It follows as often after too much snuffing, as after too much smoking. Mania is a fearful result of the excessive use of tobacco, two cases of which I have witnessed since the publication of this treatise. I have also to mention that a gentleman called on me, and thanked me for my observations on tobacco, and related to me with deep emotion, what had occurred in his own family from smoking tobacco. Two amiable younger brothers had gone deranged, and committed suicide. Berat, Roger, Collard, and Count D'Orsay all died of the excessive use of tobacco."

Mr. Solly, in an able clinical lecture at St. Thomas's Hospital, says, "there was another habit in which my patient indulged, and which I cannot but regard as the curse of the present age—I mean smoking. Now don't be frightened, my young friends, I am not going to give a sermon against smoking; that is not my business: but it is my business to point out to you all the various and insidious causes of general paralysis, and smoking is one of them. *I know of no single vice which does so much harm as smoking. It is a snare and a delusion.* It soothes the excited nervous system at the time, and renders it *more irritable and more feeble ultimately.* I believe that *general paralysis* is more frequent than it used to be in England, and I suspect that smoking tobacco is *one of the causes of that increase.*"

"I lately visited a gentleman in a Lunatic Asylum, says Mr. Lizars, labouring under general paralysis, and his mind becoming idiotical. On corresponding with his former medical attendant, I understand his habits were, that he lived temperately as regarded drink, but worked hard in a mercantile house, and smoked to excess; the phrase he makes use of is—that "he blazed away at a fearful rate."

Dr. Webster cites among the causes of mental diseases, the great use of tobacco, and he supports this opinion by a reference to the statistics of insanity in Germany. To what extent tobacco may tend to fill the lunatic asylums in this country, I have no means of judging even approximately, but a fact, that cannot

fail to have struck even casual visitors at these institutions, is the constant and prompt demand of the patients for snuff or tobacco.

"Loss of memory," says Lizars "takes place in an extraordinary degree in the smoker, much more so than in the drunkard, evidently from tobacco acting more upon the brain than alcohol." A valued and talented medical friend, whose pipe is scarcely out of his mouth when at leisure, is an instance of the foregoing condition, and who besides suffers from fearful neuralgic attacks of the head, but alas! I have failed to convince him that tobacco is in any way the cause, as "he smokes the mildest Turkish tobacco, and he is at times worse when he smokes least," but I do not despair of seeing him *throw away tobacco forever* ere greater ailments befall him. "Amaurosis is a very common result of smoking tobacco to excess, but I have never seen it produced, says Lizars, by snuffing or chewing. It occurs with or without congestion of the brain. It is commonly confined to one eye." Of this species of Amaurosis I have seen several cases in the course of my practice, and I have a patient at this moment, a gentleman connected with the civil service, who has nearly lost the sight of one eye, because, to use his own language, he found it *impossible* to give up the use of tobacco. He lately obtained leave of absence from his official duties for a couple of months, and is now in the woods undergoing strong and active exercise, having left his favourite weed behind him, and I entertain no manner of doubt, that when he returns, he will be, if not quite well, at least so much improved, as to be not only convinced of the cause of his ailment, but also weaned of his bad habit. I could cite innumerable cases of the like kind, but neither private friends nor patients like to have their weaknesses or follies published, even anonymously, as I have just done.

I fear, Mr. Editor, I have exhausted your patience, and will sum up with the deductions that have been established by respectable and unquestionable medical testimony by Lizars.

1st. That excessive smoking, *long persisted in*, is injurious to man in the highest degree—physically, mentally, and morally.

2nd. That the commencement of smoking *in early life*, and indulgence in the practice *early in the day*, cannot be too strongly condemned, as leading to most pernicious effects on the constitution.

3rd. That smoking, even in what is called a moderate degree, is to say the very least of it, indirectly injurious, more especially to the young; because it is not denied, it acts as an inducement to drinking,—thus becoming the source of intemperance, and all its accompanying evils. It is notorious, that the practices are; almost without exception, inseparably associated. The remark has become a maxim: "smoking induces drinking, drinking jaundice, and jaundice death."

What a blessing it would have been to mankind, if all men had shrunk from this plague of the brain as did the first Napoleon. One inhalation was enough. In disgust he exclaimed, "Oh the swine! My stomach turns." It is a habit fit to amuse sluggards only; and King James the First, who wrote a "counterblast against tobacco," upwards of two and a half centuries since, thus concludes, "Have you not reason then to be ashamed, and to forbear this filthy novelty, so basely grounded, so foolishly received, and so grossly mistaken in the right use

thereof. A custom loathsome to the eye, hateful to the nose, harmful to the brain, dangerous to the lungs, and in the black, stinking fume thereof, nearest resembling that horrible stygian smoke of the pit that is bottomless."

To all who have suffered or may be suffering under the pernicious influences of tobacco, I cannot give any more useful or proper advice than is contained in the stereotyped phrase of Mr. Lizars, in the treatment of the different species of disease induced by the abuse of tobacco,—to *throw away tobacco forever*.

QUEBEC, 3rd January, 1860.

REVIEWS, &c.

ART. V.—*A Manual of Operative Surgery on the Dead Body*. By THOMAS SMITH, F. R. C. S., Demonstrator of Anatomy and Operative Surgery at St. Bartholomew's Hospital, and Surgeon to the Great Northern Hospital

The examining medical boards of England having decided to test the practical acquaintance of candidates for their diplomas, with the details of operative surgery, and to demand from them, evidence of their familiarity with the method of conducting such operations as they are likely to be called upon to perform, it has now become necessary to supply them with a manual for their guidance. Mr. Smith has supplied this deficiency very well. His treatise gives directions for the performance of all the important operations that can be done in the *dissecting room*. It is not, perhaps, necessary to inform our readers that such information can give the young surgeon only a mechanical idea of operative surgery, and he must become practically familiar with this department of his profession by witnessing the performance of operations on the living subject, by assisting his seniors at such operations, and by performing them himself. We are amongst those who attach but little importance to operating on the dead body, as a training for the operating surgeon. We hold that the use of the knife is to be obtained in the *dissecting room*; *there*, the eye becomes familiar with the appearance of structure, and *there* the hand learns to appreciate the amount of resistance offered by those various structures, not it is on the operating table alone that the surgeon learns how muscular fibre retracts on division by his knife, how skin resists his scalpel, how vessels bleed, and how the best planned operation is marred by unforeseen circumstances; how frequently the plan originally decided upon has to be abandoned and a different one pursued, and from peculiarities presenting themselves in the course of an operation, how frequently he has to modify his proceedings owing to some accident which human foresight could not have guarded against. Nor is it necessary to point out to our readers that the modern surgeon must not study alone the operative department of his profession only, but that some of the highest rewards are to be obtained from the skilful medical care of his patients, and that when the *opera-*

t've part has been done, the *medical* must be practised to render the former successful. The surgeon who would aspire to eminence in his profession in the present day, must be something more than a skilful operator; he must be a good pathologist and a learned physiologist.

Need we do more than refer to the contrast between the works now in the hands of students, and those most popular with them a few years ago, for proofs of this assertion. Compare the "Science and Art of Surgery," by Erichson with those works on Surgery which immediately preceded it, and what a stride in scientific surgery is at once perceptible. The study of physiology is all important to the surgeon, and yet how frequently is it neglected, and how often do we find good practical surgeons, display both in their writings, and in their conversation, an ignorance of modern physiology and pathology, which can only be excused by the urgent demands on their time from the multifarious and pressing nature of their daily professional engagements. We recollect an anecdote told us by a distinguished surgeon, who, discussing with Sir Astley Cooper some surgical doctrines of Dupuytren, of whom he was a great admirer, asked Sir Astley his opinion of Dupuytren, "A mere carpenter surgeon, sir, a mere carpenter surgeon; he was ignorant of physiology, and consequently could never be a great surgeon." This opinion though no doubt unjust, for Dupuytren has displayed in his writings familiarity with physiology and pathology (witness his treatment of artificial anus from sloughing of intestine) equal to that evinced by surgeons of his day, yet serves to mark the estimate put upon the study of physiology by the greatest British surgeon of his age.

We have made the foregoing observations with the view of warning the young surgeon against interpreting his dexterity in operating on the dead subject as a guarantee of his successful career as an operator on the living, and with the hope that he will learn to train himself for the latter calling, by careful study in the dissecting room, by availing himself of every opportunity that presents of witnessing the operations of his seniors, and by the careful attendance on those who may require the exercise of his own surgical skill.

Mr. Smith's work will be found an excellent guide to the student who is about commencing a course of operations, and the teacher of operative surgery will derive many valuable hints from it. The author steers clear of the opposite doctrines on disputed points, and gives merely his own opinion, biassed here and there, by the practice of the institution with which he is connected. We can safely recommend it to our professional brethren who are practising in districts remote from hospitals and schools, as they will find many useful directions not to be got in larger and more expensive treatises.

Mr. Smith's treatise is illustrated by some beautiful engravings on wood. That of the Lachrymal apparatus is very clear and instructive, as well as those representing the operations on the foot; some are not quite so good as that shewing the position of the cataline in the hand, when commencing an amputation.

ART. VI.—*Lectures on Surgical Pathology delivered at the Royal College of Surgeons of England*, by JAMES PAGET, F.R.S., &c., &c. Second American Edition. Philadelphia: Lindsay & Blakiston, 1860. Royal 8vo., pp. 700.

The volume before us is the second American Edition of the work published in England in 1853, a proof of the high estimation in which it is held by the profession on this continent. We believe we are not wrong in stating, that no work on this subject is so likely as the present one, to exercise a most beneficial influence on the progress of pathology, and consequently on the practice of Medicine and Surgery—none so certain to withdraw the practice of these important branches, from the domain of empiricism, and place it on the elevated position of scientific induction; and no work should be therefore more carefully studied by all, who desire to see the study of medicine, associated with a sound philosophy, and its practice placed on a scientific basis.

In the preface Mr. Paget observes, that the lectures were nearly all delivered at the Royal College of Surgeons, between the years 1847 and 1852, during which he held the office of Professor of Anatomy and Surgery to the College. The professorship involves the annual delivery, to the members, of a series of lectures on some branch of medical or surgical enquiry, and in this instance, Mr. Paget laid under contribution, the splendid pathological museum attached to the College, generalising wherever generalization was possible, and enriching and advancing the boundaries of science, by the acquisition and interpretation of new facts, presenting, in the completed series of the lectures, 35 in number, one of the richest, if not the richest, embodiment of pathological phenomena which our language possesses. The comprehensive character of the work can only be ascertained by an examination of it; and the thorough manner in which the different subjects are discussed, and the comprehensive views displayed throughout, indicate the author to be one of the soundest reasoners and philosophers in our ranks. Such is our opinion of the author formed from a perusal of his work, several years ago; although a critical eye may occasionally detect reasoning to which exception may be taken. And to what work, how elaborate soever it may be, how carefully soever written, may not such an observation apply; but taken as a whole, it is emphatically the best work on the subject in our language, and presents, to the enquirer, a truthful and exact view of the present condition of pathological science.

Were we disposed to be captious, we might take exception to the title of the volume. "*Lectures on surgical pathology.*" What is *surgical* pathology? Does surgical pathology differ from medical pathology? Pathology, in the sense in which the term is used in the lectures, is but the recognition of the transformation of the tissues caused or set up by morbid processes, and is therefore no more allied to surgery, than it is to medicine. The subject is one involved in the first principles of medical as well as surgical science, and is therefore boundless as is both those branches, into which the healing art is popularly divided. The theory of inflammation, with all its consequences, is as usually elucidated in the university chairs of medicine, as it is in those of surgery; and is therefore no more surgical than medical. It is the same, whether viewed through medical

or surgical spectacles, and is therefore not entitled to any specific distinction, which might be apt to mislead. The work before us is as useful to the physician as the surgeon, and may be as profitably studied by the one as the other.

We have already observed, that there is no work however elaborately prepared, to which some objections might not be urged, were it the duty of the reviewer to be hypercritical, and in this respect Mr. Paget's work may not prove exceptional. Let us examine his views in regard to Inflammation.

Of the various pathological conditions, none has given rise to so much discussion, as those involved in the word Inflammation. Its prevalence, together with its being the precursor of so many important tissue transformations, has placed it in the foreground of research, as regards the peculiarities connected with its existence, and the effects which it engenders. In commencing his lecture on this important subject Mr. Paget quotes the judicious observation of Mr. Travers, "that a knowledge of the phenomena of inflammation, the laws by which it is governed in its course, and the relations which its several processes bear to each other, is the keystone to medical and surgical science." Such being the case, it becomes a matter of the utmost importance to understand, in the minutest manner, everything connected with it. And the question arises, have late investigations removed the crude ideas regarding the nature of inflammation, in what it really consists, or is the knowledge of this important subject at all advanced beyond what it was a century ago. Thanks to the labours of Addison, Watt, Gulliver, Williams and others, we are enabled to determine, with minute precision, in what inflammation actually consists, and therefore to define it with accuracy.

Mr. Paget does not attempt to "define it in any set terms," because he says, "we are not in a position to do this. Just definitions cannot be made in any science, till some of its broad and very sure principles have been established;" but, in the following passage he hints at such definitions, using the following language, "we may indeed say that stagnation of blood, or effusion of liquor sanguinis, or some exudation, or some degenerative change in the elements of the affected tissue, shall be the condition *sine quâ non* of inflammation." Now is inflammation definable. We think that modern research has sufficiently well proved that it is; and that it is neither more nor less than the exudation of the liquor sanguinis. This is at once the definition, and the essential phenomenon of the morbid process. If the antecedent changes in the parts stop short of this result, inflammation does not exist; while all the alterations which follow it are the true and inevitable results of the process. Mr. Paget, in declining a definition of the term has exhibited a degree of caution, scarcely warranted by the advances of modern investigation.

The last fourteen lectures of the series are devoted to the consideration of tumours, which he divides into the two classes of the innocent and malignant, observing "that this distinction is probably not one of mere visible structure, but of origin and vital properties; and therefore less falsely expressed by terms implying quality of nature, than by such as refer to structure alone." On this point we may be excused from quoting at length the following observations of the author. "I think it is only in the consideration of this activity

and partial independence of the life of tumours, and of the diseases allied to them, that we shall ever discern their true nature. We too much limit the grounds of pathology, when examining a tumour after removal we only compare it with the natural tissues. The knowledge of all its present properties may leave us ignorant of the property which it alone, of all the components of the body, had some time ago—the property of growing; and so if we can ever attain the knowledge of the origin of a tumour, it may avail little, unless it supply also the explanation of the progress. If, for example, what is very improbable could be proved, namely, that tumours have their origin in the organization of extravasated blood, or of inflammatory exudation, still this greater problem would remain unsolved. How or why is it, that, in ordinary cases, these materials when organized, gradually decrease, and assimilate themselves to the adjacent parts; while in the assumed formation of tumours, they gradually increase, and pursue, in many cases, a peculiar method of development and growth? Why is it, that assuming even a similarity of origin, the new formed part manifests, in the one class of cases, a continuous tendency towards conformity with the type of the body; in the other, a continuous deviation from it in shape and volume, if not in texture? How is it, that, to take an extreme case, we can never find, as in a specimen in St. George's Hospital, fatty tumors of considerable size in the mesentery of a patient, from whom, in the extremest emaciation of phthisis, nearly all the natural fat was removed; or as in a case related by Schuh, huge lumps of fat, on the head, throat, and chest of a man, whose abdomen and legs were extremely thin?"

"I do not pretend to answer these questions; but I think that in them is the touchstone, by which we may tell the value of the pathology of this great class of diseases. It is not, in the likeness or in the unlikeness to the natural tissues, that we can express the true nature of tumours; it is not enough to consider their anatomy: their physiology must also be studied; as dead masses or as growths achieved, they may be called like or unlike the rest of a part; but as things growing they are unlike it. It is therefore not enough to think of them as hypertrophies or overgrowths; they must be considered as parts, overgrowing with appearance of inherent power, irrespective of the growing or maintenance of the rest of the body, discordant from its normal type, and with no seeming purpose."

These certainly are questions difficult to answer in a manner the least satisfactory. The ideas evolved pave the way, however, to further and probably more successful researches.

The whole of this part of the volume is characterized by the most careful description of facts, and the same admirable knowledge of histology, physiology and pathology, which pervades the first portion of the work.

We do not think we are exaggerating in the least, when we remark, that the student will find in this volume the most complete epitome on pathology, which our language presents; and the physician and surgeon will recognize it, as a most invaluable treatise on a subject, an intimate knowledge of which underlies all scientific practice.

The publisher has left nothing wanting in his department. To say, that it is

got up in Lindsay and Blakistone's best style, is not saying one word more than is justly merited.

ART. VII.—*Report of the Medical Superintendent of the Provincial Lunatic Asylum, Toronto, on British and Irish Asylums; Printed by order of the Commissioners, Hamilton, 1859.*

Dr. Workman appears to have been ordered by the Commissioners of the Provincial Lunatic Asylum, to visit the principal Lunatic Asylums of Great Britain and Ireland, for the purpose of examining into their economic arrangements, and introducing into the Institution of which he has the charge, those particulars in which they were superior, and in which his own was defective. This duty Dr. Workman has discharged with his accustomed ability, and the report embraces the results of his observations during a ten weeks absence, in which he visited no less than nineteen of the chief Asylums of the mother country, twelve in England, four in Scotland, and three in Ireland. The report concludes in the following words. "Were his plans (those of Mr. Howard the architect of the Toronto Asylum) fully carried out, I feel convinced our Asylum would not be found inferior to the best in England." We trust that the Commissioners will follow up the advice thus tendered, and with Dr. Workman's assistance and enlarged observation, that the plans may even be improved upon—for as it is the province only of the highest philanthropy to take charge of those unfortunate patients who constitute the inmates of such institutions, so to meet their full requirements, there should be nothing left undone which could contribute, even in the smallest degree, to the amelioration of their condition.

PERISCPIC DEPARTMENT.

MEDICINE.

ON THE TREATMENT OF NEURALGIA AND OTHER DISEASES BY NARCOTIC INJECTIONS—THE HYPODERMIC METHOD.

Dr. Alexander Wood of Edinburgh, published in the *British Medical Journal* for August, 1858, an important paper, which has effected an almost complete revolution in the management of Neuralgic affections, and although originally employed in this class of diseases, the utility of the practice is now acknowledged in many other affections. In some cases of Asthma, the relief afforded has been most marked, and this mode of treatment will undoubtedly supersede the employment of narcotics, in the usual way in this intractable malady. After some prefatory observations, Dr. Wood goes on to say:—

M. Valleix pointed out the fact, which seemed to have escaped the notice of all previous observers, that the superficial nerves are the ones most commonly affected; and not only so, but that there are certain points in the course of each nerve which are more liable to be affected by pain than the rest of the nerve; and that these points are precisely those where the nerves approach the surface of the body. M. Valleix has noticed four points in the course of every nerve that are liable to be affected by neuralgia, and where the neuralgic pain is more apt to occur than in the other points. The first of these is the point where the nerve emerges from the bony canal through which it passes; the second, the point where the nerve traverses the muscles to ramify in the integuments; the third, the point where the terminal branches of a nerve expand in the integuments; and the fourth, where nervous trunks become superficial during their course. This writer has gone most carefully over the entire nerves of the body; and has shown the various points not only generally in reference to the whole nervous system, but has also, in detail, indicated each particular spot where we may expect the pain to be seated, according to the particular nerve affected. That is the first matter I should like to impress on those who take an interest in the subject. It is of importance to note, that the value of this information is that it enables us to find the place, often very limited in extent, where the tenderness on pressure indicates the propriety of local applications; and also, that from the nerve being superficial, there it is, of course, more within the reach of remedies applied externally.

There is another great fact which M. Valleix has shewn, and that is, that while the pain in neuralgia is most generally intermittent, the unfortunate patients attacked by it are subject to have paroxysmal attacks; and, while there is thus a difficulty in applying your remedy during the attack, you can at any moment, even during the intervals of the pain, awaken it by pressing firmly on those points in the nerve I have indicated. Let me give an example. A patient complains, let us say, of a pain in his brow. The pain, he says, is often severe: it comes on, perhaps, after he goes to bed at night; but at this moment he does not feel any pain, and therefore he fears that you can be of no use to him. Well, seat him in a chair, place his head back, and take a coin—a shilling will do very well—and press with the edge of it along the ridge of the forehead, and immediately it comes to the point where the nerve emerges the patient will scream out. I have seen and tested this so often that I can confidently state that it is a case likely to occur often in practice. Or, perhaps, to take another instance: a patient is labouring under sciatica. In that case press firmly near the posterior edge of the trochanter major, or near the superior spinous process of the ilium, or at the upper part of the ischiatic notch and, in all probability, not only will the point so pressed on exhibit tenderness, but a distinct pain proceeding down the limb will be produced.

A very interesting class of cases is that of young women who suffer from pains about the mammary region and the intercostal spaces. These are very often mistaken for *pleuritis*, and are treated with leeches when there is no necessity for them. If you take a patient suffering from such pains (which are very often accompanied with menstrual irregularities), and press on the outside of the spinous processes of the vertebræ, or along the lower margin of the rib, you will very quickly awaken the pain, which is quite a sufficient test of the fact that it is neuralgic pain, and not pain produced by inflammatory action: and that fact being so ascertained, by the use of the little instrument I have to speak of, the pain is at once abated, and, in many cases, entirely cured.

Another seat of pains which may be treated with this instrument, is the abdominal parietes. There are two parts where I have found the pain to occur very frequently; one is over the region of the liver; and I am satisfied that the existence of neuralgia in that situation explains many of those cases of supposed liver-disease, in which we cannot detect any enlargement or any apparent organic disease of that viscus. The needle introduced under the abdominal parietes (of course taking great care not to wound the peritoneum), and a narcotic injection thrown in through it, will almost instantly relieve the pain. Another class of cases are pains about the groin, or about the belly where it

comes down on the groin. We very frequently find the pains in that situation; and females suffering from them have very often been treated, by mistake, for uterine disease when there was nothing of the kind. In several cases which have come under my own observation, the speculum has been forcibly introduced into the virgin vagina when the patient was suffering from nothing but neuralgia of the abdominal parietes; caustic has been employed, and the most severe treatment adopted, when the little instrument I will soon describe to you would have almost immediately relieved the pain.

But the variety of neuralgia in which of all others I can predicate an immediate and marked success, is the trifacial neuralgia, and especially that species of it where the tender point is found at the supraorbital foramen. The extent of surface affected here is often very limited; indeed, I have sometimes only succeeded in detecting it by pressing the point of a patent pencil-case into the foramen. When once it is discovered, however, the injection may be freely thrown into the foramen; and although in this situation the pain of the application is severe, yet the result is usually a speedy and most successful cure. Sometimes you will find the painful spot at the upper part of the side of the nose, where the infratrochlear nerve emerges from the orbit. Here also the needle may be freely used. By the use of the injection in one or other or both of these places the severe pain in the eyeball, so often complained of, is at once cured.

In Edinburgh, I may mention, the use of this instrument has become nearly universal and the efficacy of the process is well known. I could narrate a vast number of cases in which it has proved eminently successful; but as details would be burdensome, I will only detain you with the mention of one or two.

A lady, troubled with neuralgic pains, had been punctured upwards of one hundred times, always in different places; but no sooner had the pain been driven from one spot, than it took up its seat in another. At last, I had expelled it from every part of the body, except a corner of the head, and there I was puzzled how to deal with it. The fact was, I could detect no painful point in the scalp. I would impress upon you that the instrument is not to be put into the place where the patient complains of the pain, but into the spot where you find you can awaken the pain upon pressure. Well, I could find no pain by pressing upon any part. The lady's husband, a medical man, took her to the German baths, in the hope that they might furnish what was wanting to the cure. She resided there for several months, but without the slightest benefit; and at length her husband brought her back to me, saying, he was satisfied unless I could cure her nobody else could. I twice examined the part of her head affected; once more, the second time, I succeeded in finding out the point where the needle should be inserted I introduced the instrument; and from that day she has never had a touch of neuralgia again, though she has suffered from rheumatic gout.

Another lady, also the wife of a medical man (and I take these cases, because on that account I am better able to get at the symptoms), was suffering from very intense neuralgia in the forehead, which had lasted, at irregular intervals, for ten days. The pain was so severe that it rendered her completely useless. I at once inserted the needle; the pain became instantly relieved, and soon left entirely. Since then it has never returned.

The question may be asked, But how does this process act? I do not think I am bound to answer that question. It would be a sad puzzle to many of us, I suspect, if we were asked how many other remedies which we use, act. We know the effect they produce; but often we are unable to tell why it is so. But I think there are various considerations which may help us to a conclusion on this question. One of these is, that we know that every disease has both a local and a general effect; and we know also, that the local effect depends very much on the affinity between the particular medicine administered and the tissues to which it is applied.

I believe the remedy I have been speaking of acts in two ways. First, the injection ~~into~~ the cellular tissue in the neighbourhood of the nerve, the needle being charged

with narcotic solution, affects the nerve. In the second place, I believe it acts by being passed into a part which rapidly absorbs the medicine, and sends it through the system, thus producing an almost instantaneous effect. In this little instrument we possess the means of bringing the patient almost directly under the influence of opium. It is truly astonishing to see how rapidly it affects the system. If you throw in a large quantity, you will see the eyes immediately injected, and the patient narcotised, and, in a few minutes afterwards, you will see him in a profound sleep.

One objection which may be brought against this process is the gastric disturbance it produces, bringing on a condition very similar to that caused by sea-sickness. Nephenthe, however does not seem to produce so much sickness as opium, and is therefore preferable as an injection. Another risk connected with this remedy, and which requires to be avoided with great caution, is that, in the case of elderly people, the injection is apt to take a very strong effect. I have more than once been much frightened by the effect it produces on people advanced in life; though, I am thankful to say, I have never been nearer producing fatal results than in the case I mentioned to you. Another caution I would offer is that you must choose the proper patient for the use of the remedy.

The instrument is of the simplest construction, and is a modification of Mr. Ferguson's. It consists of a small glass syringe graduated like a drop measure, and to this is attached a small needle, hollow, and having an aperture near the point like the sting of a wasp. The painful point being ascertained, the syringe, being charged, is pressed firmly in to such a depth as to reach the nerve, when the piston being shoved home, the charge is delivered. No hemorrhage follows; and, in many cases in which I have operated, I have never seen any disagreeable local effects, except a slight blush of urticaria round the wound.—*Brit. Med. Journal*.

Mr. Hunter of London, among a great many other writers has published his experience of the practice which is strongly confirmatory of its value. Mr. Hunter was led to make experiments for the purpose of discovering, whether the influence of the remedy depended upon its local application to the painful spot, or whether injected into other distant parts of the cellular tissue, it would be productive of like effects. This he found to be the case, and hence the employment of the remedy acquired a wider and more general sphere. He narrates a case of severe sciatica, successfully treated by an injection of three fourths of a grain of Acetate of Morphia into the lower border of the buttock on three successive evenings. A case of delirium tremens was successfully managed by the injection of half a grain of the same preparation of Morphia into the cellular tissue of the neck. This individual seemed almost insensible to the influence of the drug when administered in the usual way, sleep followed a first injection and the second and the third, after which he was discharged cured.

In a case of traumatic trismus, sleep was induced by the injection of three quarters of a grain of morphia into the arm. A like effect was produced in a case of mania, four drops of the solution of Morphia having been injected into the arm. A young girl, aged 16, the subject of a severe attack of Chorea, had her insomnia relieved effectually by the use of half a grain of Morphia injected into the cellular tissue of the neck. Such are a few out of the many successfully

* Instruments for the purpose are for sale (price from \$5 to \$10 according to the material of which they are manufactured, glass or gutta percha) by all the principal apothecaries of this city.—Ed. B. A. I.

treated recorded cases: the practice is occasionally however, not without bad consequences, the worst of which are the formation of little abscesses and erythema. Mr. Hunter prefers injection at a distance, to that at the painful spot, because inflammation is less likely to follow, and less pain must necessarily attend the injection of a sound, than an unsound or morbidly sensitive part, while equally beneficial effects have been observed to follow. Mr. Hunter has detailed in the *Medical Times* for March and April, 1859, a series of experiments on cats and rabbits elucidative of the effects of hypodermic injection.

PIGMENTUM ALBUM IN SOME CUTANEOUS MALADIES.

Mr. ALFRED FREEER calls (*Lancet*, June 18, 1859) the attention of the profession to the great value of white paint as a remedial agent. Mr. F. states that in *erysipelas* the most striking benefit results from its application. "After *erysipelas*," Mr. F. says, "the paint proves of the greatest service perhaps in *eczema* in its several forms. In chronic *eczematous* eruptions of the aged it affords much comfort, and often speedily effects a cure. Of late years I have extended its employment to other complaints of the skin, including *herpes* in its several forms. I have tried it in some cases of small-pox, with the view of diminishing the number of vesicles on the face, and of controlling their size. The latter indication it seems likely to fulfil; but I cannot speak with confidence about the former, the papules having been already numerous at the time of my visit. I have also used it in several cases of carbuncle and furuncle. The first was in an instance of a huge carbuncle, situated on the loin of a man, and rapidly extending, notwithstanding free incisions, linseed poultices, and appropriate constitutional treatment. I applied a thick, wide circle of paint round the swelling, and dressed with resin ointment and cotton wool. There was no advance of the disease from that time, the centres rapidly broke up, and recovery took place. It is, however, probable, that the omission of the warm poultice may have contributed to the improvement, for I have often observed that warm poultices, however well made, seem to foster and spread carbuncular inflammations.

"The paint seems to act in two ways: first, and chiefly, as an efficient excluder of the air—that great irritant to the cutaneous surface when disordered; and secondly, as a direct sedative to the sentient nerve filaments, rendering them less prone to become involved in inflammatory action. In boils it relieves the painful tension, and favours resolution. In some forms of painful ulcers of the leg, of a small size, it gives great relief. In galling of the skin, where *anasarca* is present, it is also of use, and is the best application that we have in burns of the first and second degree. But it is in *erysipelas* that its triumph is most manifest; the patient soon finds the comfort of it; the tight shining skin soon becomes wrinkled and shrunken; indeed, the inflammation very rarely extends after the second or third painting.

"The manner of applying it is by means of a feather, painting the affected parts and a little beyond, and laying on a fresh coat every two hours or so, until a thick layer is obtained, and then sufficiently often to maintain a covering. In *erysipelas*, it peels off in a week or so with the shed cuticle, leaving beneath a smooth, clean, healthy surface.

NEW METHOD OF RESUSCITATING PERSONS APPARENTLY DROWNED.

THE SILVESTER METHOD.

This new method, according to its advocate, Dr. H. R. SILVESTER, possesses many advantages over the "ready method" of Marshall Hall; it is easy of performance, and may be employed along with those other means in which so much confidence has hitherto been placed.

The *Silvester Method* is "a simple imitation of natural deep inspiration, and is effected by means of the same muscles as are employed by nature in that process." In deep inspiration, we lift the ribs and sternum by the pectoral and other muscles which pass between the chest and the shoulders; so in the "new method" the ribs and sternum are lifted through the intervention of the muscles, *by steadily extending the arms up by the side of the patient's head*. In this way the cavity of the chest is enlarged, a tendency to a vacuum is produced and a rush of air immediately takes place into the lungs.

Expiration is brought about by simple compression of the sides of the chest by the patient's arms. Thus "the arms of the patient are to be used by the operator as handles to open and close the chest."

The following rules are to be observed in inducing artificial respiration by this new method.

1. *Position*.—Place the patient on his back, with the shoulders raised and supported on a folded article of dress.

2 *To maintain a free entrance of air into the windpipe*.—Draw forward the tongue, and keep it projecting beyond the lips. By raising the lower jaw the teeth may be made to hold it in the proper position.

3 *To imitate the movements of respiration*.—Raise the patient's arms upwards by the sides of his head, and then extend them gently and steadily upwards and forwards for moments. [This action, by enlarging the capacity of the chest, induces inspiration.]

Next turn down the arms, and press them gently and firmly for a few moments, against the sides of the chest. [Forced expiration is thus effected.]

Repeat these measures alternately, deliberately, and perseveringly, fifteen times in a minute.

The advantages of this method, as compared with that of Marshall Hall's, as stated by its author, are the following, and may be thus studied in comparison:—

MARSHALL HALL'S METHOD.

Expiration is made to precede inspiration—the reverse of the natural order. In still-born infants forced expiration at first, (as they have never breathed) is of course impossible.

The warm bath cannot be employed during its adoption.

When the patient is turned on the face (proned), and pressure made, the contents of the stomach are liable to pass into the œsophagus and trachea.

In the opposite position, "on the side, and a little beyond" (supinated), the tongue is apt to obstruct inspiration by falling back into the throat.

Both sides of the chest are not equally inflated.

The amount of air respired is exceedingly small, the *actual* capacity of the chest not being enlarged; (proved by experiment.)

SILVESTER'S METHOD

Inspiration may be made to precede expiration, or *vice versa*, at the will of the operator.

May be adopted when the patient is in the warm bath.

Contents of stomach not liable to pass into trachea.

Tongue effectually prevented from obstructing inspiration.

Both sides of the chest are equally inflated.

A larger amount of air is inspired than by any other method; (proved by experiment.)

Lastly, we are told, that while the Royal Humane Society directs its attention mainly to the circulation, and Dr. Marshall Hall chiefly to the respiration, the new method of Dr. Silvester combines the advantages of both.—*Abridged from British Medical Journal—Dub. Hospital Gazette, Aug. 1, 1858, p. 234.*

MIDWIFERY.

APPLICATION OF BELLADONNA AS AN ANTILACTESCENT.

BY WILLIAM NEWMAN, Esq., Fulbeck, near Grantham.

I have had reason to regard belladonna as an antilactescent, and have resorted to it as such.

1. In cases where suppression of the secretion is advisable, *e. g.*,
 - (a) Where the child has been stillborn, or has died in the first few days after birth.
 - (b) Where it is desirable to wean the child even suddenly, the flow of milk still remaining unabated.
2. In cases where engorgement of flat gland has occurred, and lacteal abscess is threatening, *e. g.*,
 - (a) Where, from existence of flat nipples, injury to the breast from prior abscess, or from deficient secretion of milk, the mother is after some short and futile attempt at suckling, obliged to desist; here the gland, though not called into prolonged exercise, is yet excited, and its liability to inflammation thereby increased.
 - (b) Where the mother has suckled, and is continuing to suckle her child; but in whom, from some accidental cause or other, congestion of the breast has been set up.

I have resorted to belladonna in more than a dozen cases—comprising instances of each one of the classes I have so hastily sketched, and have not been disappointed in any of them. The cessation of the secretion, or the resolution of the engorgement, has shortly followed the application. The drug has been solely trusted in; and I have not in any case given the routine doses of calomel, salts, &c., often resorted to in similar instances; indeed, no medicine whatever was exhibited.

I have employed the extract softened with nearly an equal part of glycerine; and have applied this in a ring round the breast external to the areola. It has rarely been required for more than twenty-four hours.

How far it may be possible to check the secretion of milk in one breast on account of threatened abscess, allowing the child at the same time to continue sucking the other one, I am quite uncertain. No case of this kind has yet occurred to me; but I should fear the influence of the belladonna upon the child. No inconvenience has resulted to the mother in the above cases, save that in one instance there was dilatation of the pupils with intolerance of light for a short time.

I would simply draw attention, in closing this short notice, to the great comfort and advantage of supporting the breast in any of the states I have referred to. A handkerchief placed under the gland, with its ends tied round the neck, appears to have more in its favour than the employment of strips of bandages or of adhesive plaster.—*British Med. Journal*, May 29, 1859, p. 430.

INVERSION OF THE UTERUS SUCCESSFULLY REDUCED ON THE SIXTEENTH DAY AFTER THE ACCIDENT

Dr. George Mendenhall publishes (*Cincinnati Lancet and Observer*, July 1859) an interesting case of this. The subject of it was twenty-four years of age, in good health, and the present her second accouchement. The period at which the inversion took place, or the cause of it, is not very apparent from the history. Dr. M. was not called until the sixteenth day after the accident, when he found the patient in bed, in a comfortable condition, free from pain or other special inconvenience. By examination a complete inversion was readily made out; the uterus occupied the entire vagina, and completely filled the concavity of the sacrum.

Dr. M. proceeded to reduce the organ in the following manner: The patient was laid on her back, and placed under the anæsthetic influence of a mixture of sulphuric ether and chloroform. "The right hand was introduced without very great difficulty into the vagina, the body of the uterus grasped and carried upwards in a line corresponding with the axis of the pelvis, and steady pressure made in that direction, so as to put the vagina and utero-vaginal connection on the stretch. The left hand was placed on the abdomen, and the fingers against the outer edges of that portion of the uterus looking towards the cavity of the abdomen (which could be distinguished plainly), and counter pressure was made for the double purpose of preventing injury to the utero-vaginal connections, and also for the purpose of facilitating the turning of the os and neck of the uterus over the body and fundus. I am quite certain that this manipulation increased the facility of reduction, and added to the safety of the structures involved. The cramped position of the hand was occasionally relieved by passing a large rectum bougie, which was retained against the fundus by the hand in the vagina, and thus keeping up the pressure constantly.

"The turn of the uterus commenced at the neck, and was continued along the body until it involved the fundus. While this turning was in progress, the os could be felt enveloping successive portions of the body, until the fundus was also embraced by it. As soon as this portion was well above the os, the bougie was relied upon entirely for the completion of the reduction; the latter part of which took place rapidly with the point of the bougie at the fundus, and which was enveloped by the uterus in its natural cavity, when the reduction was complete. The fundus of the uterus (inclosing the bougie) could be felt very plainly above the pubis, while the lips and neck could easily be distinguished in the vagina, by passing the fingers alongside the bougie. This instrument was left in the uterus, and an injection of fifty drops of laudanum in two ounces of starch water, administered by the rectum, as soon as the effects of the anæsthetic passed off; which was in a very short time. She said she felt quite comfortable, and had not experienced much pain in the operation; her pulse and breathing were good, and no stimulant was required. The amount of blood lost was small, although the discharge was somewhat increased.

This case, with those related by Prof. White and Dr. W. T. Smith afford encouragement to attempt replacement in cases of inverted uterus, even after a lapse of time which has hitherto been supposed to forbid any hope of relief.

CRANIOCLASM

Prof. Simpson laid before the Obstetrical Society of Edinburgh some casts and preparations of the heads of infants, whose delivery had been effected by means of a new variety of craniotomy, which he proposed to call *Cranioclasm*. The peculiarity of the new operation was the fracturing of the base of the fetal skull behind the foramen magnum, and at other points: and this Dr. S. had found it perfectly possible to effect, when a proper pair of forceps were employed, although many high authorities had declared it impossible, under any circumstances, to diminish the size of the base of the cranium. The advantages of the operation were chiefly these: 1. By breaking up the base of the skull, diminution of the head of the child was produced at its firmest and most unyielding part, and that to such a degree as to render the passage of the head through the contracted maternal canals, as easy as the transit of the shoulders or pelvis of the infant. 2. The necessity of breaking up the vault of the cranium into small pieces, and removing the fragments was obviated; and thus the practitioner at once was saved much time and trouble, and the patient freed from the danger of laceration which attends the removal of the sharp peices of bone. 3. As the bones of the fetal head, remaining in their normal relation, could be more easily kept covered and protected by

the soft parts, the mother ran less risk of injury during the extraction of the head. And 4. The extraction of the head was further facilitated by the firm hold which could be obtained with the extracting forceps. The operation was performed by perforating the skull in the usual manner, and afterwards applying a pair of duckbill forceps to the skull—one blade inside the cavity, the other on the surface, so as to grasp the occipital bone close up to the foramen magnum, where, by a slightly twisting movement, the bone was fractured. By applying the forceps deeply, in the same manner, over the bones at the sides and front of the skull, fracture of the basis could likewise be produced at those points. The forceps, hitherto employed in this operation, was a craniotomy forceps with serrated blades; and all that was required was, that they should be free at the joint, of such a curve as to admit of their easy adaptation to the head, and with the inner surface of the outer blade strongly bevelled or hollowed, so as to enable the smaller or convex inner blade to sink into it, and thus take a very firm hold of the included portion of the cranium. As a matter of convenience, the joint should be made moveable, and yet firmly fitting so as to act like a scissor-joint. The operation has now been performed in three cases, all of which were illustrated in the casts and preparations before the Society. 1. There were two casts of the head of the first child that had been delivered in this manner. One of the casts represented the head in its collapsed condition; the other was taken from the same head after it had been stuffed out and restored nearly to its normal dimensions; and on comparing the two, it would be seen that the head had been diminished to the extent of about two inches in all its longest diameters. 2. There was a preparation of the second child that had been delivered in the manner described; and in this case the operation had been performed in the lying-in hospital by Dr. Keiller in Dr. Simpson's presence. By handling the head, the members of the Society could feel to what an extent the base of the skull had here been broken down. 3. There were two casts of the skull of a third fœtus who had been delivered by cranioclast— one showing it crushed and collapsed, the other showing it in its natural form and size. A preparation of the skull of this fœtus was laid before the Society, which could be easily seen to be fractured at the base in several places, viz., behind the foramen magnum, between the frontal and sphenoid bones, and between the temporal boxes and the basilar process of the occiput—*Edinb. Med. Journ.*, July, 1859.

CRANIAL BLOOD SWELLINGS.

Dr. Edward Rigby read a paper on this subject before the Obstetrical Society of London (July 6, 1859). After relating the histories of two examples, the author proceeds to show that these cases are not unfrequently mistaken for hernia cerebri, an exceedingly rare and dangerous malformation, and which never occurs on the parietal bone, but always over a fontanelle or a suture. On opening these cranial blood-swellings, they are found filled with dark semi-fluid blood, beneath which the bone is healthy. The collection of blood is usually beneath the scalp and tendinous aponeurosis of the occipito-frontalis muscle, the bone being covered by its pericranium. Sometimes, though more rarely, the pericranium itself is elevated by the collection of cranial sanguineous fluid; and besides these two forms, other modifications of cranial blood swelling have been described, but if they really do occur, they are of exceeding rarity. Great misapprehension has been entertained by several authors respecting the progress of these tumours. Thus, it has been stated that much constitutional disturbance would be set up if this accumulation of blood were allowed to remain; that it would become putrid; that fever would result; that there would be danger of ulceration, sloughing, etc. Hence it has been recommended to open these swellings, and evacuate their contents at an early period, before these changes could occur. But the success of these modes of treatment has been anything but encouraging and hence Dr. Rigby advises, that the

practice of Professor Naëgelé should be followed. This consists literally in doing nothing. As long as the infant remains healthy, the effusion will gradually be absorbed, so that by the time the child is a month old, the tumour will have entirely disappeared. —*Medical Times and Gazette*, July 23.

ON THE INDUCTION OF PREMATURE LABOUR BY COHEN'S METHOD.

The first question to be decided by the practitioner in any case in which delivery at the full term of utero-gestation will involve necessarily the death of the child, while it subjects the mother to much anxiety and suffering, and jeopardizes, also, in many cases her life, is the propriety of procuring a premature expulsion of the fœtus. If the decision of this important question be in the affirmative, and the circumstances and period proper for the performance of the operation are satisfactorily settled, the next question of moment that presents itself is, by what means can premature labour be brought about with the greatest certainty, and with the least risk to the safety of both mother and child? This method consists in the introduction of an ordinary sized elastic catheter, through the os tincæ, several inches into the pregnant uterus, between the wall of the latter and the fœtal membranes, and then, with a syringe adjusted to the catheter, injecting a few ounces of water, heated to 90° or 100° of Fahrenheit, at shorter or longer intervals, according to circumstances, until regular expulsive contractions of the organ are induced.

The first who conceived the idea of exciting premature contractions of the pregnant uterus with a view to the expulsion of its contents, by the injection into it of warm water, was Scheighäuser, of Strassburg, in 1825. The plan thus suggested was put in practice by Dr. H. M. Cohen, of Hamburg, who called the attention of the profession to it, in a thesis written in 1846. Since then, the medical journals furnish us with the histories of some sixty cases, of prematurely induced labour, in addition to those of Dr. Noeggerath, in which Dr. Cohen's directions were imitated, and with very favourable results.

With regard to the time that elapsed from the first injection to the termination of labour, the shortest period in these cases was three hours, the longest eight days, the average period being two days. The only instance in which the operation failed is recorded in *Scanzon's Beiträgen sur Geburtskunde*, for 1855, by Dr. Langenheinrich in Würzburg. In this case it does not appear, however, that a fair trial of the method was made. The catheter being introduced into the womb two inches, its further progress was arrested by an unknown obstacle; the water injected was accordingly discharged instantly. Now all authors agree that a considerable portion of the water has to be retained within the womb to induce efficient labour pains. The same thing has since happened, and had not repeated attempts been made to find out a region where the catheter could be safely introduced some four or five inches, the operation would have entirely failed. In all the sixty-two reported cases excepting three, the mothers recovered. The deaths in the fatal cases were caused by diseases unconnected with the operation; namely, two from eclampsia and one from puerperal fever. The fate of the child is noted in fifty-eight cases—thirty-six being born alive, and twenty-two (?) dead; the number of deaths corresponding pretty accurately with the number of cross presentations.

In most instances only one or two injections were required, and the average duration of labour from the time of the first injection was two days; not one instance is known of its failure, while the prompt recovery of the mothers, with the exception of those few cases where death resulted from eclampsia, etc., gives us the best guarantee of the harmlessness of the procedure. Moreover, the apparatus required is of such a simple character, that every practitioner, residing in the smallest village, is in possession of it. The performance of the operation requires only a sufficient knowledge of the female sexual organs in the state of gestation—the only precaution to be observed is, to

inject the water not with violence and force, but gently and slowly. But we meet from time to time, with such a disposition of the internal sexual organs, that the introduction of a catheter is absolutely impossible, whether from a firm closure of the os, or from a location of the vaginal portion in an upward or backward direction so that it is out of reach. Under such circumstances, we have to resort to a preparatory treatment in order to change the condition of the lower uterine segment; a treatment which in many cases may prove sufficient to induce efficient labour pains.

"Of all means which may be chosen for this purpose, the douche is no doubt best adapted to our purpose. In acting principally upon the lower circumference of the womb, it is apt to soften the parts, to open somewhat the os, and to bring the vaginal portion more in the direction of the pelvic axis. We will further remark that Cohen's method ought not to be resorted to when induction of labour is required in case of uterine hemorrhage, from whatever cause it may arise. In such cases, nothing can surpass the caoutchouc bladder plug, (*Braun's collpeurynter*), which introduced empty and then filled with iced water, at once controls the bleeding by the double action of cold and pressure, and is almost sure to induce efficient labour pains by its mere presence in the vagina.—*American Journal*.

IDENTITY OF THE MECONIUM AND VERNIX CASEOSA.

BY PROFESSOR FORSTER.

The general opinion respecting the meconium is, that it consists in a mixture of bile, intestinal mucus and intestinal epithelium; but microscopical examination shows that besides the colouring matter of the bile, it is composed chiefly of the vernix caseosa. For the most part it consists of small flat scales, which present all the characteristics of horny epithelial plates completely corresponding to the horny scales of the vernix. Under the microscope, the meconium only differs from the vernix by the presence of the yellow colouring matter and the smaller number of fat-globules. A proof of the identity is its containing minute hairs in just the same numbers as the vernix, which, indeed, without the microscope, may be separated from it by a needle. The horny scales could have no other source than the vernix, for the stomach and intestinal canal are lined with cylinder epithelium, and the mucous membrane of the mouth and œsophagus does not give rise to them. Besides these scales, we observe in the meconium fatty globules of different sizes, crystals of cholesterine, and irregular yellow and brownish clotlets, which give the dark colour to the meconium, and are doubtless biliary colouring matter. The fatty globules are evidently of cutaneous sebaceous matter, and the cholesterine is in part derived from the bile, and in part from the decomposition of the vernix during its passage to and deposit in the rectum.

The fœtus swallows from time to time some of the liquor amnii having the vernix swimming in it, and the hairs and horny scales pass unchanged along the intestinal track. Whether any of the sebaceous matter is taken up by the lacteals may perhaps be determined by microscopical examination of the intestinal villi of the fœtus; and it would be interesting to determine, by numerous examinations of the intestinal canal, at what period this swallowing of the liquor amnii commences. As the elements of the vernix are only suspended in the liquor in small quantities, a large quantity of this must be gradually swallowed to lead to the amount of meconium usually present. The water must be soon absorbed from the stomach, as it is never found in it. The greater portion is probably excreted by the kidneys, and again reaches the amnios. That it in nowise contributes material to the nourishment of the fœtus has been shown by Bischoff; but that does not prevent it serving some purpose in the economy. A regular examination of the entire contents of the intestinal canal in numerous fœtuses of different ages, is required to elucidate these points; and especially would such examination be of inter-

est in the case of monsters. That the acephalæ have no meconium has long been known, and has usually been attributed to the absence of the liver. This would, however, only explain the absence of its dark colour; and the meconium will only be wanting when, by reason of the malformation of the intestinal canal, the reception and transport of the liquor amnii holding the vernix caseosa are prevented.—*Med. Times and Gaz.*, June 11, 1859, from *Wien Wochenschrift*, 1858, No 32.

ON ERGOT OF RYE IN HÆMORRHAGE OF THE UNIMPREGNATED UTERUS.

By PROFESSOR TROUSSEAU.

The patient who was the occasion of this clinical lecture suffered from carcinomatous metrorrhagia; and her case furnished a new proof of a fact which is more common than it is generally believed to be, that the most frightful cancers of the uterus may reach their last stage without causing pain; while in other cases, a cancerous affection that has made but little advance, may give rise to intolerable suffering. In the year 1832, M. Trousseau, together with M. Maisonneuve, tried a series of experiments with ergot on a large scale, in uterine hæmorrhage, whether resulting from delivery, abortion, cessation of menstruation, carcinoma, or the presence of polypus or tumour. The results were, that the hæmorrhages of women recently delivered were rapidly arrested, this medicine being the most rapid and the most certain in its effects. Even when it is powerless it is entirely harmless; but, in general, its efficacy is real from the moment when uterine contraction commences, the hæmorrhage being arrested, although the woman may lose blood for some hours. The contradiction is only apparent. Hæmorrhage, is, in fact, not constituted by the flow of blood from cavities into which it has been long since poured, but by its leaving the vessels in which it is circulating. Now, when after delivery, we give the ergot to combat the inertia of the uterus, the primary cause of the metrorrhagia, we provoke the issue of the blood contained within the uterine cavity; and such hæmorrhage, which is only apparent, only ceases after the entire expulsion of the blood extravasated within a certain time. As to the real hæmorrhage, it is arrested by the contraction of the muscular fibres of the uterus, and the occlusion of the gaping sinuses.

In the hæmorrhages arising from abortion, advantageous results were also obtained; but the loss of blood was not arrested so rapidly as in hæmorrhage after delivery, and in the hæmorrhages which occurred at the period of the menopause, its operation was so slow and uncertain that preparations of rhatany or sulphuric acid were preferred.

The ergot was also tried in carcinomatous hæmorrhage, and to the great surprise of the experimenters, succeeded almost as rapidly as in post-partum hæmorrhage, and more rapidly than after abortion. Of course fungoid, or encephaloid cancers, from which a more or less sanguinolent sanies is always issuing, are not those meant, but cancer accompanied by hæmorrhage, which returns every ten or fifteen days, lasting three or four days. In seeking for an explanation of this occurrence, we may compare the state of the uterus, when the seat of cancer, to the organ in the impregnated state—a hypertrophied state of the muscular fibres being present in both cases. Louis' researches have already shown us that in cancer of the stomach, there is hypertrophy of the muscular tunic, not only when the pylorus is the seat of the affection (which would be explained by the increased effort required to surmount the obstacle opposing the passage of the aliment into the duodenum) but also in cancer of the large curvature.

With respect to the influence of ergot on internal hæmorrhages in general, such as epistaxis, hæmatemesis, hæmoptysis, &c., the experiments were not attended with success, or success, when obtained, could not be positively attributed to the treatment employed. Nothing is more difficult, in fact, than to judge of the efficacy of a medicine in hæmorrhage, an accident which is so essentially temporary, and of such variable

duration. It is not possible to determine upon the action of a hæmostatic, except when, in the same individual, the hæmorrhage, after being reproduced with its particular characters, is then suspended by the action of the remedy. A woman, for example, is the subject of metrorrhagia, which usually lasts four or five days; and if on giving her the ergot it continues only twenty-four hours, to return again in its ordinary manner on the suspension of the remedy, we may then decidedly assert that the medicine is of service. But the other varieties of hæmorrhage are essentially transitory, hæmoptysis, or hæmatemesis, occurring at near or distant intervals, never to be foreseen or determined. In the majority of cases, too, these bleedings stop spontaneously, and medicines that may have been administered, sometimes acquire a reputation which they have no right to. At all events ergot, or ergotine, has no advantage in these cases over any of the numerous other hæmostatic agents: and if it is more successful in the case of uterine hæmorrhage, it is not so because it acts upon the hæmorrhagic element itself, but because it exerts a special action upon the uterus, by virtue of which the fibres of this muscular organ undergo contraction.

Professor Trousseau concluded his lecture by referring to another case he had treated with large doses of digitalis, as recommended by Dr. Howship Dickinson. The hæmorrhage did not recur, but as it had already stopped prior to the administration of the medicine, the case proved nothing more than the innocuity of the medicine in infinitely higher doses than the Professor had ever before employed it. He thinks the method well deserves further investigation.—*L'Union Médicale*, 1859, No. 36.

A SUCCESSFUL CASE OF RESUSCITATION.

By H. R. SILVESTER, M. D.

On Sunday night last, I was sent for to a patient in Union-road, Clapham, and found her confinement with her first child just commencing. Although the presentation was cranial, and there appeared to be nothing abnormal in her condition, she continued in labour until Thursday night, when symptoms arose which rendered speedy delivery advisable. I accordingly had recourse to the forceps, and readily extricated her from her perilous condition. The child, however, was apparently quite dead. Sprinkling with cold water, &c., produced no effect, probably owing to the insensibility arising from compression of the head by the instrument, or from the unusual severity of the labour. The case was given up as hopeless by the bystanders, when I determined to try my method of resuscitation, and, arising the child's arms up by the sides of his head, I extended them gently and steadily upwards and forwards for a few moments, thus enlarging the capacity of the chest by elevating the ribs through the pectoral muscles. By this means, I induced a tendency to a vacuum in that cavity, and an inspiration of air was the result. Next, by turning down the little patient's arms, and pressing them gently against the sides of the chest, I produced a forced expiration. In less than ten minutes the natural respiration was established, and I am happy to be able to add that the mother and child are progressing favourably.—*Lancet*.

SURGERY.

INCISIONS IN ANTHRAX.

Maurice H. Collins, Surgeon to Meath Hospital, says (*Dublin Quarterly Journ. Med. Sciences*, August, 1859) that "the incision into anthrax, whether made early or delayed till sloughing has done part of the surgeon's work, must be deep rather than extensive. Usually it is said anthrax is a flat swelling. The fact of its flatness, or rather of its ex-

tent, hides the real amount of elevation, which is, in most cases, considerable. Hence incisions into anthrax seldom go down *through* the inflamed skin and areolar tissue. But even if they did go down to the fascia, they would fail in effect unless they also went through it. The fascia is highly inflamed in anthrax; in fact the essential difference of anthrax from furuncle consists in the inflammation being deeper and implicating the fascia. When the fascia is inflamed, much plastic exudation takes place, both in its substance and under it; and the tendency of anthrax to spread indefinitely is to be thus accounted for. The pent-up plasma, quickly producing pus and slough, can get no vent until there is an adequate opening in the fascia, and this opening should be made by the surgeon as early as possible, if he would avoid the unpleasantness of useless and repeated cutting, and the extensive sloughing which will occur if he neglect to make it. Plastic exudations find great facility in travelling under the fascia, dissecting and destroying its vascular connections, and ultimately causing much of it to perish. This is well known, as a general principle of surgery, and it is strange to find it overlooked as the cause of the spread of anthrax. We readily acknowledge the mischief it does in periostitis, in diffused inflammations of erysipelatous character or connected with paronychia, and in many other analogous cases; but books of surgery, are for the most part, silent about it in the case of anthrax. And yet every one must have observed phenomena which can only be explained by it. The extent and mode of extension of the swelling, the real depth to which the surgeon must cut, if he is to do good rather than harm, and the fact that large flakes of fascia, ultimately coming away as dead core (in addition to areolar tissue), leaving the underlying muscles bare, must have been often observed, and must often, doubtless, have had their influence on the practical observer; but the junior surgeon and the pupil have not been shown their practical bearing. The rule I have given above, to cut deep rather than wide, is founded on the observation of these facts, and will be found satisfactory, saving the surgeon the opprobrium of cutting twice or oftener without benefit to his patient. It is very easy to know when we are deep enough; by taking hold of the flaps made by our crucial incision, we feel if they are quite loose. Our incision is not deep enough unless we can lift up the point of each flap with ease from the parts underneath. This cannot be done unless our knife has gone through the fascia, and made a crucial incision in it almost as extensive as in the skin. The wounds we have made should be almost as deep at their extremities as in the centre, where they intersect. If we have made our incisions early, before actual sloughing has commenced, as we sometimes, though rarely, have an opportunity of doing, the flaps will curl up if the wound is deep enough, and will leave a widely gaping wound; but if we do not see the anthrax until more or less of the skin is undermined and dead, the gaping of the wound will not be so marked, and the best test is the one I have given above of lifting the flaps with a forceps, and proving that they are loose. If this rule is followed, we shall have few cases in which we must come and cut again.

TREATMENT OF ANEURISM BY COMPRESSION.

This subject is to be found discussed at considerable length, and by several different writers, in some recently published volumes of the Italian Medical Journals. We subjoin the following extracts from these periodicals:—

Manual Compression in Aneurism.

M. Vanzetti mentions that the fact of compression of the arterial trunk leading to the aneurism, without any incisions or other surgical operation being necessary, has now been recognised for about three quarters of a century as a mode of treatment in these cases; the method being known as that of "indirect compression," and due in the first instance to Guattani.

For its most convenient application, a host of instruments, machines, and processes have, says he, been proposed, and a considerable number of cures obtained by their use. Such cures, however, have not been effected without much pain, great inconvenience, and even danger to the patient, while much anxiety and trouble became imposed upon the surgeon. For several years the author has practised and taught in the University of Padua the means of curing such cases without pain, without inconvenience, and without danger, and that in a few days' time. In this manner he has for four years upheld, that the true method of treatment in any curable form of aneurism is pressure, applied without any instrument, apparatus, or mechanical contrivance of any kind, but in every case solely by the hand. He therefore claims for Italy not only the merit of having originated the idea of compression, but of having thus brought that method to its greatest perfection. In conclusion, he says, that by compression with the naked hand alone, a cure can thus be effected easily, speedily, and safely, without risk, and without pain.—*Gazetta Medica Italiana (Lombardia)*, 1858.

Indirect Compression in Aneurism.

M. Trombini, in allusion to compression by the hand alone, says, while admitting every credit to the advocates of this method for having originated and carried it out, he does not implicitly admit them to be correct in stating that patients can in this way be cured "easily, speedily, and safely, without risk, and without pain."

M. Nelaton had patients treated in this manner by twenty-four of his pupils; but he was unable to avert suffering, and death followed it in one instance. M. Broca, in his work on Aneurism, thus expresses himself:—"Enough is known of digital compression to prevent any one ever dreaming of its being adopted as an ordinary mode of practice, or its becoming available in any but exceptional cases."

Another motive had also induced M. Trombini to bestow some attention on the writings of M. Vanzetti. He was unwilling that the silence of Italian surgeons on the subject should be construed into their acquiescence in the statement that to them belonged all the merit in this matter, while only a part of it by right belonged to them. In reading the work of Guattani (*De Externis Aneurismatibus*), printed at Rome 1772, we found that compression only constituted an auxiliary to the method of Valsalva, assisting the rest and depressing measures he adopted. To this illustrious Roman surgeon, then, was due the principle of indirect compression. This principle, which was that of retarding the flow of blood into, and thus promoting the formation of a coagulum in the aneurismal sac, had been attempted before, too often ineffectually or even injuriously, until 1825; and to Belmas, of Strasburg, did science owe its first establishment as a doctrine; as was also due to this surgeon the merit of effectually applying this method by multiple and alternate compression. Had practitioners traced the chain of facts put into their hand by the surgeon of Alsace, the period of application would not have been so late as 1842. If, adds M. Trombini, the French surgeons, who have contributed so large a share in this matter, are contented to have cultivated the ground by which others have enjoyed the fruits, M. Vanzetti should content himself with the title to which we Italians can and ought to claim, namely, that of having first cleared a distinct path through this ground by the works and genius of Guattani.—*Gazetta Medica Italiana (Lombardia)*, 1858.

Aneurism of the Crural Artery treated successfully by Digital Compression.

M. Riberi relates the following case of this nature. A young man, of good constitution, and of sanguineo-bilious temperament, but who was affected with syphilis, for which he had been improperly treated, received a fall while at his usual occupation, about two and a half months before, from the top of a locomotive engine, and sustained a severe concussion of the spine. Considerable swelling of the lower limbs followed the accident, as he had, in attempting to save himself, landed with great force upon

them. The accident resulted in an attack of subacute myelitis, and an aneurism of the the left crural artery at its inferior third.

This was at first mistaken for a rheumatic affection; but after a month and a half's suffering, during which it had acquired the dimensions of an orange, he was admitted to the hospital, and there underwent treatment for the myelitis and the syphilitic affection under which he laboured. After this he was submitted to the mode of compression recommended by M. Vanzetti; this being made, of course, on the horizontal branch of the pubis.

After two hours' continual pressure, the pain in the aneurism, which had previously been of a violent character, ceased, as did likewise the pulsations; and four hours afterwards, the blood contained in the sac was coagulated so much, that the tumour presented a distinct hardness. In order to solidify more completely, the clot compresses wet in iced water were applied, and frequently renewed; and at the lapse of four days of compression, the tumour, already hard, indolent, and pulseless, rapidly diminished. — *Gazetta Medica Italiana (Stati Sardi)*, 1858.

REMARKABLE COURSE OF A URINARY FISTULA.

A patient recently entered the St. Antoine Hospital, under Mr. Morel-Lavallée, suffering from stricture, and having several urinary fistulæ in one of his thighs. Not a drop of urine was discharged by the urethra, and no instrument could be introduced. Although the attempt at catheterism was made with great precaution, an intermittent paroxysm followed, giving rise to the death of the patient in spite of the administration of quinine. At the autopsy, a vesical fistula was found traversing the horizontal ramus of the pubis, a true bony canal, in fact, existing, communicating with the fistulous tracts of the thigh, and with the point once occupied by the prostate, this gland being entirely destroyed. It is probable that in this case there was primary disease of the bone, the bladder becoming attached to it. The case is probably unique, although the example of balls perforating the ramus, penetrating the bladder, and thus giving rise to a fistula, bear some analogy to it.—*Union Méd.* No. 114.

MATERIA MEDICA.

ON THE RELATION OF FOOD AND RESISTANCE TO LOW TEMPERATURES

BY DR. ISAAC HAYES.

The author was Surgeon on board the *Advance*, the vessel employed in the second Grinnell Arctic Expedition. "There is," he says, "a great misapprehension in the popular mind upon the subject of Arctic life. It is, I believe, pretty generally thought that Arctic travellers are necessarily subjected to great hardships in consequence of the lowness of the atmospheric temperatures, and that almost superhuman powers are required to resist it. This is, I can but think, a great mistake. The animal economy everywhere adapts itself to surrounding circumstances, and this power of adaptation is nowhere more strikingly exhibited than in the Arctic regions. The appetite and digestive powers are, doubtless, more intimately concerned than any other animal function; and in the quantity and quality of the food consumed, we are led to look for an explanation of the cause which enables the inhabitants of Arctic countries so successfully to resist cold."

During the stay of the *Advance* at Rensselaer Harbour, on the west coast of Greenland, in 1853, the author was in frequent intercourse with a tribe of wandering Esquimaux, inhabiting the shores of the head-waters of Baffin's Bay. These people live almost

without fire, so spare is their occasional supply of wood. Their huts are often built of snow, and the temperature varying from zero to freezing point, is kept even thus elevated mainly by the radiation of heat from the bodies of the occupants. "Yet, with this seemingly unendurable temperature, they appear to live in comfort. The outside temperature varies from 30° to 70° below zero. No matter how low, provided the air is calm, they do not hesitate to shift their quarters as occasion may require, and with their families and domestic furniture upon their sledges, they travel sometime forty or fifty miles at a single march. My object in dwelling thus minutely upon the habits of this people you will readily appreciate. Living virtually without fire, most meagrely dressed, dependent upon the hunt for every necessary of life, and almost daily exposed in the pursuit of game to the very lowest temperature, we are astonished at their complete indifference to the cold. They are, too, a strong, robust, and healthy race; scurvy is unknown amongst them, and I have never known or heard of an instance of tubercular disease."

It is the quantity and quality of the food consumed which supplies this power of resistance, the daily consumption of animal food (the walrus, seal, narwhal, and bear forming the chief supply) being from 12 to 15 lbs.—about a third part being fat. In proportion as the diet of the *Advance* approached that of the Esquimaux, did impunity on exposure to a low temperature increase. A craving was felt for animal food, and especially for fatty substances, which in other latitudes would be exceedingly distasteful. "Frozen blubber became quite palatable; and during the second winter, when the temperature of the cabin was rarely above 45°, and often as low as zero, it was found necessary by Dr. Kane, in order to protect his men against the bad effects of the salt, to guard the slush barrels by the strictest orders. The process of acclimatization with us was gradual. I remember well how, in the autumn of '53, we suffered intensely from temperatures, which, a year later, produced no impression upon us; and I am satisfied that this increased power of resistance was in direct proportion to our ability to eat and digest animal food. During a later period of the cruise, some of the party lived precisely the life of the Esquimaux during three winter months, entirely without fire for the purposes of warmth, without suffering any serious inconvenience from low temperatures."

Speaking of the ill effects of salt meat, mischievous not only *per se*, but also because a sufficient quantity of it cannot be eaten, Dr. Hayes mentions a singular effect it had upon the dogs, which had never been accustomed to such diet:—"They could not eat it except in small quantities, and the salt of the meat, the cold and the darkness, operating together upon their feeble bodies, developed a singular epilepto-tetanoid disease, which ultimately destroyed nearly every animal which Dr. Kane took with him from South Greenland or afterwards procured." The same was, from time to time, observable among the men, and doubtless for the same reason.

The Esquimaux for the most part eat their meat raw, and the author strongly recommends the fact to notice, having often found the stomachs of scorbutic patients readily retain frozen, uncooked flesh, while they refused cooked meats. Freezing quite destroys the repulsiveness of raw meat; and the raw flesh of the seal and the walrus, especially if acidulated with a little vinegar or lime-juice, was very generally preferred by the sick. While fresh animal food, and especially fat, is essential in the Arctic regions, alcohol is not only useless, but positively injurious. "Circumstances may occur under which its administration seems necessary; such, for instance, as great prostration from long-continued exposure and exertion, or from getting wet; but then it should be avoided if possible, for the succeeding reaction is always to be dreaded. If given at all, it should be so in very small quantities, frequently repeated. I do not believe that it has a single useful property, not possessed in a ten-fold degree by other stimulants,—and under this head I rank tea and coffee. So valuable are both of these, that I am at a loss to say which is best. The English Arctic explorers almost invariably use tea, and so do the Russians; but Dr. Kane's party, after repeated trials, took most kindly to coffee in the morning and tea in the evening. The coffee seemed to last through the

day, and the men seemed to grow hungry less rapidly, while tea soothed them after a day's hard labour, and enabled them to sleep better. They both operated upon fatigued and over-tasked men like a charm, and their superiority over alcoholic stimulants was very marked. The virtue of coffee used under the above-named circumstances I cannot overpraise, the only drawback to its frequent administration being the difficulty of preparing it, when the atmospheric temperature is low, and the traveller is obliged to depend upon a lamp with which to melt and boil the water."—*American Journal of Medical Science*, July, pp. 114-118.

CHEMISTRY.

ON AN EASY MODE OF PREPARING METALLIC CHROMIUM.

Wohler has given a simple mode of effecting this object. The process is as follows. One part of Chloride of Chromium is to be mixed with two parts of Chloride of Potassium and Sodium. This is to be introduced into a common crucible, packed tight, two parts of granulated zinc laid on it, and covered with a layer of alkaline salt. The crucible is then heated until the mass fuses, when on removing the cover for an instant, a zinc flame is observed, accompanied by a peculiar sound; the heat is diminished by closing the draught, and the whole kept fused for about 10 minutes. The crucible is then to be removed from the fire, gently struck to collect the metal and allowed to cool. On breaking the crucible a well formed regulus of zinc will be found under a green slag. This is to be well washed with water and thrown into dilute nitric acid, and the latter is to be added until all the zinc is dissolved. The Chromium remains as a crystalline powder, which is again to be heated with Nitric Acid, and then well washed. Its characters are stated to be as follows: A bright grey, highly crystalline powder. Under the Microscope the crystals are shewn to be sharp rhombohedrons of great lustre and tin white colour. Its Sp. Gr. is 6.81 at 25° C. *It is not Magnetic.* Heated in the air it oxydises, becoming yellow and blue like steel, and gradually becomes covered with a thin layer of green oxyde. Heated in Chlorine it glows vividly, and changes into a Chloride of a violet colour. Hydro-Chloric Acid dissolves it, yielding a blue protochloride. Cold Dilute Sulphuric Acid has no action on it, but heated, a violent action sets in, and the remaining metal acquires the property of being easily dissolved after washing, even by the most diluted Sulphuric Acid. Concentrated Nitric Acid, even when boiling does not attack it in the least.—*Silliman's Journal*, Nov., 1859.

ON HÆMIN CRYSTALS.

In *Virchow's Archives*, Messrs. Buchner and Simon have contributed a valuable paper on the medico-legal importance of these crystals. Alluding to the discovery by Teichmann in 1853, of the production of rhombic coloured crystals in dried blood, which had been subject to the action of Acetic Acid, a fact so highly serviceable in determining between blood stains, and other marks upon articles of clothing, wood, iron, &c., the authors proceed to a precise description

of the external appearance of these crystals. Ho merely gives a resumé of some of the remarks on the substances with which they might be confounded. Indigo, on the addition of Acetic Acid, gives crystals resembling hæmin crystals, but their clear blue colour characterises them. The colouring matter of Sandal-wood, madder, red-ink, seed-lac, and dragon's blood, contained microscopical crystals, which to the unpractised eye might give rise to mistake; but their irregular form, at one time needle shaped, at another quadratic, their obscure outline, and their colour would serve to discriminate. The red ink stains, treated with chloride of Lime and Alum, gave rhombic shaped crystals, but they were colourless, and only here and there had a pale rose colour, which even the addition of water dispelled. The murexide, however, presented greater difficulty, and yielded crystals with or without the addition of Acetic Acid, which in form and colour were very like the hæmin crystals. The difference, however, was established by the fact, that the murexide fluid, evaporated with Acetic Acid is of a bright brick red colour, whereas the fluid of blood so treated is of a dingy brown red tint. On the addition of water, the murexide, evaporated with Acetic Acid passes into a purple red colour; on the addition of Hydro-Chloric Acid, it becomes colourless, and on the addition of an alkali blue; while hæmin crystals are insoluble in the first fluid and become dark green in alkali. In a mixture of murexide with blood and Acetic Acid, a colour less bright red than murexide and brighter than blood was produced. Water and Hydro-Chloric Acid dissolve out the murexide, leaving the hæmin crystals unchanged.—*British and Foreign Medico Chirurgical Review.*

TRANSFORMATION OF CELLULOSE INTO PARCHMENT PAPER.

By the action of concentrated Sulphuric acid on common blotting paper, the latter becomes changed into a tissue closely resembling parchment, nearly as cohesive, and superior to it as it resists the agency of boiling water which parchment is incapable of. The material was called Papyrine, and its manufacture was first reported in the *Journal de Chemie et de Pharmacie* by Messrs. Poularède & Figuier, for 1847. It is likely, no doubt, to constitute a valuable substitute for parchment in very many of the uses to which that material is put, especially for printing and writing purposes.—*Poggen. Annalen.*

ON THE EQUIVALENTS OF MANGANESE AND NICKEL.

The equivalent of Manganese was determined by Berzelius, from two analyses of the Chlorid to be 27.56. Von Hauer determined, as the mean result of nine experiments after the reduction of the Anhydrous Sulphate by Sulphuretted Hydrogen, to the condition of Sulphide, the chemical equivalent to be 27.5. Dumas fixed it at 26.0 after reducing the artificial peroxyde to protoxyde by Hydrogen. Later experiments induced him to adopt the number 27.5. The most late experiments of Schneider, and Rawack, confirm the general accuracy of the experiments and results of Berzelius, establishing 27.009 as its true equivalent. Schneider has determined the equivalent of Nickel to be 29.

THE
British American Journal.

MONTREAL, JANUARY, 1860.

TO OUR READERS.

WITH the auspicious epoch of the commencement of another year, the **BRITISH AMERICAN JOURNAL** enters upon a new phase of its existence with cheering prospects of a vigorous and healthy future. Into the causes which have conspired to interrupt its course, as well as that of every succeeding attempt of a like nature, it is not our present purpose to enquire. Nevertheless the broad fact lies before us, that the Medical Profession, one, which in the British American Provinces, may almost count its numbers by thousands, is the only one which has not supported effectually its own periodical. And when we consider the value of such a medium of communication to such a Profession—to advocate its wants, to diffuse its improvements and discoveries, to furnish from time to time, an instructive epitome of all that transpires in the medical world, we cannot doubt that this, our renewed effort, will command sufficient support to ensure prosperity and length of days, provided always that the editorial duties are discharged with fidelity and singleness of purpose.

It is scarcely necessary in such an undertaking as the present, to state at length the nature of its claims upon general support. In the case of political journals it is otherwise. The shades of political opinion which characterize the various parties into which the community is divided, demand from the journalist who enters the arena of politics, an explicit statement of his views. But the oneness of sentiment, which distinguishes scientific pursuits, renders such a proceeding on our part unnecessary. We deem it right, however, to state that we have no purpose to serve apart from the highest good of our Profession; that we desire to pursue a perfectly independent course, unfettered by any feelings of partizanship whatever; that our grand object is to diffuse among the scattered members of the Profession in these vast Provinces, as large an amount of sound practical information as we may be able to command, furnishing at the same time a permanent record for the observations and experience of every practitioner, be the *locale* of his labours ever so distant,—the sphere of his action limited or enlarged; and finally to elevate and purify, to the utmost of our ability, the character of the Profession.

Such being our purpose, such the principles which actuate us, may we not hope to contribute to the improvement of science in these British Colonies; to prove to our brethren of distant countries, that we are not laggards in the common race for distinction and usefulness; and to demonstrate, that we are especially

desirous of establishing among all the members of our noble Profession, community of thought and action, to the end that the sufferings of our common humanity may be alleviated, if not relieved.

THE UPPER CANADA MEDICAL BILL.

At the Session of the Legislative Assembly in 1858, a Bill was laid before the House No. 228, called "An Act to incorporate the Medical Profession in Upper Canada, and regulate the study, licensing and practice of the same therein." This Bill, having been objectionable in several respects, and especially as it delegated despotic powers to the Corporation, met with considerable opposition, the result being that it was withdrawn; and at the last session of last year, another was substituted for it, against which we think no reasonable objection can be brought. It is called "An Act to incorporate the Medical Profession in Upper Canada under the name of the College of Physicians and Surgeons in Upper Canada;" but it is, more properly speaking, a registration Act for the Profession of Upper Canada, and does not contain a single clause, incorporating the Profession, which is probably an accidental omission. The following are some of its most important provisions. It establishes a council to consist of one person chosen from time to time, by the following Colleges and Bodies, the U. C. Medical Board, the Universities of Toronto, Trinity College, Victoria and Queen's College, the Toronto school of Medicine, and every other College or Body in U. C., by law authorized or to be authorized to grant medical or surgical degrees, or licenses to practice medicine, surgery, and midwifery or either, and of twelve persons to be elected from among the registered practitioners of Upper Canada. All members of council must be qualified to be registered, and when elected shall serve for three years. The council, to be called "The General Council of Medical Education and Registration of Upper Canada," shall ordain the times of its own meetings, shall appoint a President, Registrar and Treasurer whose duties are obvious. Every resident practitioner in Upper Canada possessing qualifications, shall on payment of a fee not exceeding \$10 become entitled to enregister. The Council shall have power to demand, from Colleges and Bodies alluded to in the Act, information as to the course of study and examinations to be undergone by candidates for such qualification, and the requisites for obtaining the same, and at the examination, any member of the council, or person deputed, may be present. In case it shall appear to the council that the course of study, and examination undergone by the candidate, are inadequate to secure sufficient knowledge for efficiently practicing the profession, the council shall represent the same to the Governor of the Province, who is authorized to deprive the qualification so granted of its title to enregistration. This order to be withdrawn on amelioration of affairs. The Registrar, shall annually publish a list of all qualified enregistered practitioners to be called "The Medical Register of Upper Canada," and it shall be *prima facie* evidence in all Courts, that the persons therein specified are registered. Any registered practitioner convicted of felony shall forfeit his enregistration. None but registered practitioners can demand and recover in law professional accounts. None but the same can be

elected as medical officers, to the public service, Militia, or hospitals or charitable institutions receiving government assistance. Attempting to become registered by false qualifications to be a misdemeanor, to be punished by imprisonment for not less than twelve months. All persons falsely pretending that they are registered, and taking or using any name, title, addition, or description, implying that he is registered under the Act shall upon conviction pay a fine of \$100. The Act finally prescribes the election of a member of Council for each of the twelve Electoral Territorial divisions of Upper Canada, with the mode and time of such elections,—and the qualifications for registration are the following:—1st. Licenses to practice under any of the following Acts 59, Geo. 3, Chap. 13., and 8, Geo. 4, Chap. 3, of Upper Canada, 28 Geo. 3, Chap. 8., and 10, and 11 Vic. Chap. 26 of Lower Canada. 2nd. The degrees of the Universities of Upper Canada. 3rd. The Degree or Diploma of any College or University in her Majesty's dominions. 4th. Certificate of registration under the Imperial Act 21 and 22, Vic. Chap. 90, known as the "Medical Act," and lastly a commission or warrant as Physician or Surgeon in Her Majesty's naval or military services.

On carefully perusing the provisions of the Act, of which we have given an epitome, we see nothing to which any practitioner in Upper Canada can reasonably object; and we sincerely hope to see it speedily become Law. It seems to have engaged the most minute attention on the part of its framers, and its provisions are fully adequate to rescue the profession of the Upper Province from its present confusion, and place it in the position to which it is entitled, and which it justly merits. The right to depute members of the Council to attend the professional examinations of the qualifying Boards, is one to which no objection ought to be entertained by any Board which does its duty honestly: and it is a measure, and the best one to secure uniformity in the educational standard of the different Boards. We sincerely hope it will pass the Legislature without opposition of a material nature; and the only amendment, which we would suggest to the framers of it, is the introduction of a clause for the express purpose of incorporating the members of the Profession.

It is our opinion that we, of Lower Canada, might profitably take out of the Upper Canada Act such clauses as would ensure the enregistration of every member of the profession practicing in it. It is a singular fact that since that Act of Incorporation was obtained, scarcely over fifty medical practitioners have availed themselves of its membership.

AN APOTHECARY'S BILL FOR LOWER CANADA.

Twelve years have elapsed since the Act, Incorporating the Medical Profession of Lower Canada, became law. When that measure was originally introduced into the Legislative Assembly, it embodied certain clauses regulating the study of Apothecaries and the sale of poisons. On the ground of some technical objection to these clauses, an opposition was made to the Bill by the Apothecaries, and upon their deliberate pledge, made at the time to several gentlemen, who took a warm interest in the measure, and who were superintending and urging on its course through the House, these clauses were withdrawn, the

assurance having been tendered, that if withdrawn, they would propose at the ensuing session of the Legislature a Bill of their own, affecting their own interests exclusively. In sanctioning the omission of the Apothecary clauses the Profession acted then, in the most perfect good faith. Let us now see the result. Year after year elapsed, and no move was made, on the part of the Apothecaries, to secure their promised measure. Tired of their inaction, the Profession again moved in the matter; and two if not three Bills, to enact a professional qualification on the part of the Apothecaries, and to regulate the sale of poisons, a practice far too freely and incautiously pursued by many of this class, were in successive Parliaments introduced, and as often frustrated, by the determined opposition of the Apothecaries themselves. The good faith of such a procedure, especially when coupled with their pledge, can be thus duly estimated. We believe, however, that the opposition was chiefly manifested by the Apothecaries of Quebec. We know none in this town, who are opposed to the principle of such a measure.

If this question were one, in which the Medical Profession only felt an interest, we could then easily divine many reasons for opposition to the measure, on the part of those affected by it. But when we consider, that however desirous the Profession may be, to have those thoroughly educated, who are to dispense their prescriptions, however important for them it may be to be assured, that the medicines employed are genuine, a point on which their own reputation is frequently dependent, however desirous the apothecaries themselves may be, to have those who are to succeed them, well educated men, it is the public at large who should take the greatest interest in the measure, as it is their interests which are the most affected, both directly and indirectly. It is their interest, for example, to feel assured, that the apothecaries who compound their prescriptions, know the drugs which they are employing, both in their nature, their properties and their doses; that their chemical knowledge is adequate to all the emergencies to which it is applicable; that their character should be a guarantee of the purity and genuineness of the materials which they are using; and that the sale of poisons should be restricted, or if made, then under such regulations, that if purchased to be used with the intention of committing murder, there shall exist such a clue to the identity of the purchaser, as will defy his escape from detection and punishment. Are these not objects which deeply involve the best interests of the public, and if so, is not the opposition, exhibited to the Bill by the Apothecaries, one which brings them into collision with the best interests of the community, which it should be their utmost endeavour to sustain and promote.

It may possibly be that the opposition, which has rendered futile the preceding attempts at legislation, has originated from the presence in the Bill of some obnoxious clauses. This, however, is by no means a justification of the opposition to the whole Bill. We feel persuaded, that the Profession is not desirous of enforcing any especially obnoxious measure upon the Apothecaries, and we have no doubt, that all the objectionable features could be removed by a conference in which the views, wishes, and feelings of the two parties might be expressed. The interests of the Profession are too closely interwoven with those of the Apothecaries to permit of a serious antagonism. But the time has come, when for the sake of all the parties concerned, some Legislative enactment is

required. The Apothecaries owe it to themselves: the Medical Profession urge it as the safeguard of their interests; and the community at large demands it as a measure, which in whatever light viewed, affects in the strongest manner possible, their physical and moral necessities. The next session of Parliament, now almost at hand, will see a Bill introduced for the education of Apothecaries, and the sale of poisons, to which we think no reasonable objection can be urged, and which, once made law, must ameliorate the matters to which we have very briefly adverted.

THE MEDICAL SCHOOLS OF CANADA.

The attendance of students of medicine at the several medical schools in the Upper and Lower Province, appears this year to be unusually large. This is to a certain extent probably due to the fact, that a considerable number, who have hitherto sought their professional education in the medical schools of the United States, have discovered that the system of instruction pursued in their own country can compare favorably with the most favoured of the American Republic. In one respect we think our courses superior, in as much as they extend over a period of six months, those in the States seldom exceeding four months.

The following numbers indicate the attendance at the Canadian Universities and Schools:

University of Victoria College, (Rolph's School Toronto,).....	50
School of Medicine, Toronto,.....	56
University of Queen's College, Kingston,.....	77
University of McGill College, Montreal,.....	108
School of Medicine, (French Canadian), Montreal,.....	62
University of Laval, Quebec,.....	32
Total in attendance,.....	385

TO OUR EXCHANGES.

This number will be forwarded to all those Medical Periodicals, with which it was our greatest pleasure to exchange this civility in days gone by. We need not say that it will give us pleasure to welcome back again their faces once so familiar, and in requesting the respective Editors to favour us as before, it will economize time and save trouble if they would address their numbers to the Editor of this journal directly.

BOOKS, &c., RECEIVED FOR REVIEW.

- LECTURES ON SURGICAL PATHOLOGY, delivered by the Royal College of Surgeons of England, by JAMES PAGET, F. R. S., &c. Second American Edition. Philadelphia: Lindsay & Blackiston, 1860, 8vo. pp. 700. Price \$4-00.
- ARCHAIA, or Studies of the Cosmogony and Natural History of the Hebrew Scriptures, by G. W. DAWSON, L. L. D., F. G. S., &c., &c. Montreal: B. Dawson & Son. London: Samson Low, Son & Co., 1860, 12mo. pp. 400. Price \$1-25.
- REPORT OF THE MEDICAL SUPERINTENDENT OF THE PROVINCIAL LUNATIC ASYLUM, Toronto, on British and Irish Asylums. Printed by order of the Commissioners, Hamilton, 1859. Pamphlet pp. 21.

ABSTRACT OF METEOROLOGICAL OBSERVATIONS AT MONTREAL IN DECEMBER, 1859.

By Archibald Hall, M.D.

Day.	DAILY MEANS OF THE							THERMOMETER.		WIND.		RAIN AND SNOW.			GENERAL OBSERVATIONS.	
	Barometer corrected and reduced to 32° at 10 P. M.	Temperature of the Air.	Dew Point.	Relative Humidity.	Ozone.	CLOUDS.		Maximum read at 9 P. M.	Minimum read at 7 A. M.	Its general Direction and Mean Force from 0 Calm to 10 Violent Hurricane.	Rain in 24 hours read at 10 A.M.	Snow in 24 hours read at 10 A.M.	Total rain and melted snow.			
						Amount.	General Description.									
1	Inch's.	0	0	0.100	0	0										
2	29.671	42.0	37.9	.89	9.7	10.0	Cu. St. Nim.	47.12	27.0	S.S.W.	0.10					
3	30.070	18.4	11.5	.89	9.7	10.0	Cu. St. Nim.	42.5	11.3	N.N.E.	2.0	0.19	0.19			
4	30.744	0.8	-12.2	.57	4.0	4.0	Cir. St.	7.2	-4.0	N.	1.0	3.0	0.35		Lunar Halo.	
5	30.569	9.5	1.9	.81	8.5	10.0	Nim.	12.0	-2.0	N.E.	2.6	2.25	0.30			
6	30.331	23.5	19.3	.91	9.5	10.0	Nim.	27.3	10.0	N.	1.6	Inap.	3.25	0.44	Misty evening.	
7	30.010	26.3	33.2	.90	10.0	6.6	Nim.	40.3	25.6	S.S.E.	0.8				Fog, early, A. M.	
8	29.836	32.4	29.5	.95	10.0	10.0	Nim. Cu. St.	43.8	33.4	W.	1.3	0.38	0.38			
9	30.247	12.2	1.7	.73	2.5	1.0	Cu.	23.8	8.0	Calm.	0.27	0.50	0.27			
10	30.079	16.6	8.0	.78	4.0	6.0	Cu. St. Nim.	22.0	5.0	S.	0.6					
11	30.147	10.4	1.4	.82	4.5	7.0	Nim. St.	23.7	12.0	W.	1.6	3.30	0.24			
12	29.760	17.4	11.8	.87	8.0	10.0	Cu. St. Nim.	24.0	1.5	S.	1.0	0.40	0.67			
13	29.732	-2.5	-15.2	.50	4.7	0.6	St. Cu.	23.1	-7.2	W.S.W.	2.6	1.60	0.18		Auroral arch in evening.	
14	30.306	-1.4	-13.9	.52	1.0	0.3	St.	9.2	-9.3	W.S.W.	1.0				Aurora with streamers, 4 A. M.	
15	30.274	5.9	-2.1	.80	3.7	10.0	Cu. St. Nim.	12.0	-7.6	N.	2.0					
16	30.074	15.8	1.5	.70	3.0	7.0	Cu. St. St.	17.2	9.5	W.N.W.	1.0	0.30	0.63			
17	30.248	20.5	12.9	.85	6.7	6.6	Cu. St.	26.2	14.0	N.E.	0.6	Inap.	Inap.		Auroral Arch.	
18	30.243	20.2	0.4	.65	1.5	0.3	Cir.	23.5	12.2	N.E.	1.3				Auroral light.	
19	29.903	22.7	12.7	.81	9.0	10.0	Cu. St. Nim.	23.4	13.5	N.E.	3.0	3.00	0.28			
20	29.793	26.6	20.8	.87	7.0	10.0	Cu. St. Nim.	31.3	20.8	N.	1.0	6.40	0.76			
21	29.625	32.0	28.5	.89	8.5	10.0	Nim.	36.8	23.6	W.	1.0	0.40	0.65			
22	29.690	21.2	13.9	.84	7.5	10.0	Cu. St.	31.9	12.0	W.	1.6	2.40	0.34			
23	29.875	10.4	0.2	.75	4.2	3.0	Cu. St. St.	13.5	5.0	W.S.W.	1.3	0.30	0.02		Bright Zodiacal light.	
24	29.643	18.7	10.7	.83	6.2	10.0	Cu. St. Nim.	26.2	6.5	S.W.	1.0					
25	29.856	-4.4	-19.5	.60	1.2	0.3	St.	19.0	-10.2	W.	2.6	0.40	0.04		Bright Zodiacal light.	
26	29.884	-0.9	-1.1	.68	4.0	10.0	Cu. St.	5.9	-12.3	S.W.	3.3					
27	29.684	5.3	-2.3	.79	7.5	10.0	Nim.	8.0	-5.0	N.N.W.	2.0	3.70	0.26			
28	30.323	-2.3	-13.6	.57	1.7	0.0	0	11.9	-6.0	N.W.	1.6	0.50	0.13		Zodiacal light, Auroral light.	
29	30.560	-11.5	-17.1	.67	1.0	0.0	0	-6.0	-16.8	N.N.E.	1.0				Zodiacal light faint. Hazy.	
30	30.273	-12.9	-21.5	.44	0.0	3.3	Cu. St.	-9.2	-21.3	N.N.E.	1.0					
31	29.779	4.5	-2.7	.83	7.0	10.0	Nim.	9.0	-12.5	N.	2.0	7.30	0.58			
30	29.954	8.6	-0.3	.81	7.0	5.6	Cu. St.	14.8	0.0	W.N.W.	3.3	1.10	0.03			
S's												0.84	40.4	4.95		
M's	30.050	13.37	4.09	.763		6.5		20.51	3.90							

ABSTRACT OF METEOROLOGICAL OBSERVATIONS AT TORONTO IN DECEMBER, 1859.

Compiled from the Records of the Magnetic Observatory.

Day.	DAILY MEANS OF THE					THERMOMETER.		Dew Point at 3 P.M.	WIND.		RAIN AND SNOW in 24 hours, ending at 6 A.M. next day.			GENERAL REMARKS.		
	Barometer reduced to 32° Fat.	Temperature of the Air.	Relative Humidity.	Amount of Cloudiness.	Max. read at 6 A.M. of next day.	Min. read at 2 P.M. of same day.	General Direction.		Mean Velocity in Miles per hour.	Rain.	Snow.	Total rain and melted Snow.	Ozone in 24 hours ending 6 A.M. of next day.			
1	Inches.	0	0-100	0-10	0	0										
2	29.443	44.37	90	10	54.8	40.8	50.0	N. 79 W.	15.00		Inch.	Inch.	Inch.			
3	29.627	17.27	84	10	23.8	17.3	12.0	N. 37 W.	13.02	0.255	0.1	0.265				
4	30.272	6.80	81	8	17.0	0.8	4.0	N. 12 E.	14.54				0.200			
5	Sunday				28.0	8.0		N. 23 E.	12.98		2.5	2.50				
6	29.817	34.23	92	10	38.2	23.5	35.5	N. 66 E.	3.67	Inap.						
7	29.745	33.03	92	10	42.0	31.2	40.1	N. 63 W.	10.51	7.80	3.5	1.130				
8	29.745	15.83	86	10	22.0	19.3	14.0	N. 59 W.	8.59		2.5	2.50				
9	29.946	9.60	82	7	18.8	4.0	9.0	N. 70 W.	5.06							
10	29.674	22.25	87	7	27.0	6.3	23.0	N. 66 W.	18.46		0.5	0.59				
11	29.904	15.00	84	6	29.5	4.2	12.0	N. 79 W.	7.86							
12	Sunday				37.2	10.5		N. 74 W.	17.91		0.2	0.20				
13	29.544	8.35	84	4	14.4	1.0	6.5	N. 66 W.	5.70		0.1	0.10				
14	29.869	13.63	84	3	20.0	3.2	10.0	N. 5 E.	6.02		3.0	3.00				
15	29.829	15.90	90	3	19.8	15.2	13.5	N. 9 W.	7.53		0.2	0.20				
16	29.817	17.48	83	7	26.6	9.0	18.5	N. 45 W.	1.67	Inap.	Inap.					
17	29.793	26.60	82	7	32.2	10.4	25.0	N. 16 E.	4.07							
18	29.543	29.03	93	10	32.0	22.3	24.0	N. 73 E.	20.39		4.0	4.00				
19	Sunday				33.6	28.5		N. 69 E.	11.01		6.0	6.00				
20	29.425	32.07	87	10	35.0	31.0	23.0	N. 63 W.	3.05		0.4	0.40				
21	29.293	29.60	92	10	32.2	29.2	30.0	N. 40 W.	5.84		1.5	1.50				
22	29.542	21.08	85	10	24.8	19.2	15.0	N. 88 W.	13.33		0.2	0.20				
23	29.545	17.02	89	7	21.0	15.2	16.0	N. 88 W.	6.82							
24	29.408	14.12	86	6	18.3	14.0	9.5	N. 88 W.	14.82		0.3	0.30				
25	29.439	16.05	89	8	14.2	-1.9	5.0	N. 89 W.	10.19		0.2	0.20				
26	Sunday				30.3	7.3		N. 77 W.	4.59		0.2	0.20				
27	30.035	6.07	84	2	14.9	5.6	2.0	N. 48 W.	13.21		Inap.	Inap.				
28	30.073	-0.53	83	10	2.5	-3.0	3.0	N. 18 E.	12.18							
29	29.599	7.02	89	10	14.0	-1.5	2.0	N. 45 E.	18.18		3.5	3.50				
30	29.439	16.05	89	6	25.0	6.6	20.0	N. 48 E.	14.07		4.0	4.00				
31	29.785	-1.08	85	1	3.0	-6.0	-3.0	S. 73 W.	14.71							
S's											1.035	37.4	4.775			
M's	29.7093	17.89	87	7	25.26	12.94	16.12	N. 53 W.	10.76							