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OF

MEDICAL & PHYSICAL SCIENCE.

EDITED BY

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

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

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THE

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VOL. V.] MONTREAL, NOVEMBER, 1849. [No. 7

ART. XXX.—ON THE TREATMENT OF SCLEROTITIS AND SCLERO-IRITIS BY HYDRIODATE OF POTASH.

By ROBERT L. MACDONNELL, M.D.,

Physician to the Montreal General Hospital; Lecturer on Clinical Medicine, University of M'Gill College, Montreal, &c.

The treatment of some forms of sclerotitis and sclero-iritis frequently proves a source of great embarrassment not only to the physician engaged in the general practice of his profession, but also to him, who devotes himself *specially* to the cultivation of ophthalmic science. Of this statement, the writings of oculists furnish abundant illustration. Having often witnessed this difficulty in the practice of others, and encountered it in my own, I am induced to recommend strongly to the profession, a plan of treatment which I have found to succeed not only where ordinary remedies had failed, but to be eminently beneficial where those upon which practitioners place most reliance, had been completely neglected.

The remedy to which I allude, is the hydriodate of potash given in such doses as to produce a marked effect on the local disease. The class of cases in which I have found it useful were similar to those about to follow, and the manner in which the remedy should be exhibited will be described in the sequel.

Case 1.—A delicate girl, aged 14, was admitted into the Montreal General Hospital, in the winter of 1845, under my care, laboring under a severe attack of acute articular rheumatism. The shoulders, elbows and wrist, as well as the knees and ankles, were much swollen and extremely painful, and the other usual symptoms of rheumatic fever were present. A combination of nitrate of potash and opium was administered for some days, during which time a gradual and steady abatement in the severity of the symptoms took place, and all seemed progressing favorably until the sixth day after admission, when extensive sclerotitis of both eyes manifested itself. At the hour of visit, the patient lay with her head covered with the bed clothes, the intolerance of light was so excessive; she complained of a sensation of tightness, heat and pressure in the eyeballs, and of having passed a most wretched night. As she had not left the ward, or been exposed to cold or damp, we could not attribute the ophthalmic disease to any other cause than the existence of a rheumatic diathesis; and as both eyes seemed in great danger, I determined, not with hesitation, to bring the constitution under the influence of mercury, and to employ local depletion and counter-irritation.—Leeches were applied to both temples, followed by blisters to the back of the neck, calomel and opium administered, and belladonna applied to both eyebrows. In a few days the pain and swelling of the joints had completely left, but no improvement in the condition of the eyes was observed, although salivation had set in. Ptyalism was, however, maintained for the next fortnight, yet no change, except for the worse, was perceptible. The irides now became deeply involved; the corneæ, which all along were muddy and semi-transparent, now presented ulcers in different situations. On the right were two large ones, and on the left, three small *transparent* ulcers were observed.* As the mercury had been fairly tried, and the state of the patient forbad further depletion, I ordered the spirits of turpentine in the doses recommended by Mr. Hugh Carmichael; and notwithstanding that the medicine produced nausea and strangury, yet, as it seemed the only remedy entitled to confidence, in that stage of the disease, it was employed for several days. The ulcers of the corneæ became daily more extensive, the anterior chambers were occupied by a turbid fluid,† and the scle-

* Mr Wilde alludes to a dark spot always perceptible on the iris, immediately behind a transparent ulcer of the cornea, which he says is the best means of detecting such ulcers, and which sign he was the first to discover. As this dark spot is not *always* seen, and when present is not always immediately behind, but sometimes to one side of the ulcer, it is to be hoped that Mr Wilde will follow up this interesting inquiry, and explain the cause of these irregularities.

† I have purposely avoided mentioning that the chambers of the eye contained pus, for I do not believe that the fluid of a hypopion is always purulent, although this view is opposed to the express doctrines, of the best writers on ophthalmic diseases. I know it is customary to consider a hypopion, a purulent collection, and on this supposition, an operation of very doubtful value, has been recommended, for the purpose of giving exit to the collection of matter, which in the majority of cases, if not all, might have been *absorbed*. Now, the very fact of these rapid and frequent absorptions of the fluid of a hypopion is oppposed to the idea of its being purulent, for we do not see pus absorbed so frequently or so quickly from other situations. Some good pathologists, as D'Arcet, (*Recherches sur les Abcès Multiples,*) believe that the pus globule is never absorbed; while others, as Vogel, believe that it is sometimes taken into the system, but not before the globule has become disintegrated and dissolved, *i. e.*, not until it has undergone a change, whereby it has lost its peculiar anatomical and physiological properties. This latter opinion I believe to be correct. Besides, we know that the epithelial lining of the elastic cornea, is identical with that of the serous membranes, and is the principal agent in secreting the aqueous humour. It is then in accordance with analogy to presume that it deports itself similarly to serous membranes when inflamed, and exhibits a greater proneness to serous and plastic exudation than to purulent.

The "thick and lumpy secretion," and its "tough viscid nature," its being "tough and thick," and in some instances, "thick and glutinous" and "thick and tenacious," clearly point out its identity with lymph and serum, rather than with pus, for

rotic inflammation became more intense. As the constitution of the patient was suffering from the effects of protracted disease and active antiphlogistic treatment, the turpentine was at last abandoned and quinine and good diet substituted. At the end of three weeks the constitutional symptoms were much relieved, but no improvement had taken place in the ophthalmic affection. I now prescribed the iodide of potassium, although I had never seen it employed, or heard of its having been recommended in similar cases. Five grains of the salt were taken three times a-day. Two days after commencing this plan, a manifest improvement took place, and proceeded regularly for the next three weeks, when on vestige of disease remained, save the ulcers of the corneæ. These were treated in the usual way and rapidly filled up.

Encouraged by the success of the remedy in the foregoing case, I employed it subsequently on several occasions, both of acute and chronic sclerotitis and sclero-iritis, and latterly I have employed it almost exclusively in these affections. The following cases illustrate its effects in well marked instances of these diseases, and it is not too much to say, that speedier results could not have been obtained from any of the methods previously known to practitioners.

Case 2.—Mrs. ——, aged 26, was exposed to a draught of cold air on the 27th of August, 1848, and soon after complained of pain in the left eye, which, during the night, became much increased, and as she had suffered from a severe attack of inflammation of that eye some years before, which had confined her to her bed for six weeks, she became greatly alarmed and sent for me the following morning.

The sclerotic was much inflamed,—great intolerance of light, lachrymation, sense of fulness and tightness in the eye-ball, and pain around the orbit, were complained of. Fomentations and low diet were ordered, and she was recommended to remain in a dark room, to avoid reading or using the eyes on minute subjects, and to take hydriodate of potash in five grain doses, three times a-day, the bowels having been previously acted upon by aperients. On the 29th conjunctivitis had likewise appeared, and no change had taken place in the sclerotic; the pain and intolerance of light were much increased. The hydriodate was still persevered in, and nitrate of silver collyrium employed to counteract the conjunctival inflammation. Sept. 2.—The sclerotic and conjunctival inflammation were much less. She could bear strong light, and could even read with comfort. The cornea was quite clear, and she had no pain in the eye-ball or brow. The iodide was continued for some days longer.

This lady never had rheumatism, and gout and scrofula are unknown in her family. In the former attack of inflammation, which from its course, symptoms, and the appearance of the eye, the patient is quite certain was of the same nature as the present one, and not more severe, she had been confined to bed for six weeks, and had been repeatedly leeched and blistered, and underwent other active antiphlogistic treatment, yet though the same eye was again attacked, and no local bleeding or counter-irritation was employed, recovery took place in little more than a sixth of the time occupied in the cure of the first attack. Am I not justified, then, in attributing, to a certain extent at least, this rapidity of cure to the remedy employed.

Case 3.—[Reported by Mr. Brooks.]—Anne P., aged 21, of sanguine temperament, was admitted into the Montreal General Hospital, Sept. 29, 1849, laboring under severe ophthalmia of both eyes. She had been suffering for nearly three weeks under the affection, and had been under treatment previous to admission, but had not attended regularly to the directions of her medical adviser, who had prescribed calomel and quinine and local counter-irritation.

On admission, she complained of severe throbbing pain in the eye-balls and above the superciliary ridges, lachrymation and some swelling of the lids. Both eyes were affected much in the same way, but the right one to a greater extent. There was no purulent discharge. The pain was more severe at night, preventing sleep until four or five o'clock in the morning; intolerance of light was very great, and she complained of a sensation of roughness on the globes. The conjunctiva was also inflamed; its large and tortuous vessels partially obscured the small, straight, radiating, and pink colored vessels of the sclerotic. The cornea of the right eye was slightly opaque, but no vessels were visible on it by the naked eye. The pupils of both eyes were contracted, and that of the right one had assumed a square shape. The irides of both presented a dull appearance, and seemed thickened, but there was no lymph on their surface or at their edges. Pulse 104, somewhat hard and full; skin hot but moist; tongue covered with thin white fur; bowels regular. She was ordered to be cupped to both temples, and to take ten grains of hydriodate of potash in solution, three times a-day; low diet; a solution of atropia to be dropped into both eyes.

Oct. 2.—Pain at night still continues, but is less severe and does not prevent sleep; pupils much dilated from the atropia. Pulse 88. Continue medicines.

Oct. 5th.—No pain last night or to-day, in either eye; no intolerance of light or lachrymation; conjunctiva presents its usual appearance; some slight pink discoloration around the margin of the cornea of both eyes. Fifteen grains of the hydriodate to be taken three times a-day.

Oct. 13.—Discharged cured.

This patient never suffered from syphilis, scrofula or rheumatism.

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the peculiarities just enumerated, are not characteristic of pus in other situations.

This inquiry is not devoid of practical utility, for if it be proved by further observations that the fluid of hypopion, (not resulting from the bursting of an abscess of the iris or cornea) is not pus, but turbid serum having a small quantity of lymph floating through it, it will explain the rapidity with which the contents of the chambers become absorbed, and encourage us to employ such remedies as are likely to produce that effect, and will limit the frequency of operations for giving exit to the effused fluid. I am not aware if the fluid of hypopion has ever been submitted to microscopic examination,—the presence or absence of pus globules in a given number of cases would determine the question.

The evidence I have adduced in favor of the remedy is still further strengthened by that of Dr. Howard, so well known as a skilful oculist, who has extensively employed it at my suggestion, amongst the patients attending the Montreal Eye Institution. He assures me that he has rarely found it to fail in chronic sclerotitis, and that lately, having heard me speak very strongly in favor of it in acute sclerotitis, he was induced to give it a trial in the following case, in order to illustrate its effects to his class, some of whom had seen me employ it in similar cases whilst attending at the Montreal General Hospital.

Case 4.—"A laboring man presented himself at the Montreal Eye Institution, with acute sclerotitis of the left eye; the anterior chamber was half filled with an hypopion. Encouraged by your strong belief in the use of the hydriodate of potash, I gave him an eight ounce mixture of the iodureted iodide of potash, ordering him to take one table spoonful every four hours. Belladonna was applied around the eye in the usual way. In six days the disease was completely cured, the patient having, during the whole period, continued his daily labor."

Notwithstanding that analogy would seem to point out the hydriodate of potash as a remedy from which much benefit should be derived in acute or chronic inflammation of a fibrous membrane like the sclerotic, yet its use is not alluded to by any of the writers on diseases of the eye which I have had an opportunity of consulting, amongst whom I may include Mackenzie, Wardrop, Lawrence, Tyrrell, Walker, and the latest works in the English and French languages, viz.: Wharton Jones' *Ophthalmic Surgery*, and Mons. Desmarres *Traité théorique et pratique des maladies des yeux*. Dr. Jacob of Dublin, in some excellent practical papers on inflammation of the eye, published in 1846, a year after I had commenced using hydriodate of potash in ophthalmic diseases, alludes favorably to the use of iodine in iritis, when complicated with a *strumous* or *syphilitic* habit. But as Mr. Wilde, in his able reports on ophthalmic surgery, published in the fifth and tenth numbers of the *Dublin Quarterly Journal of Medicine*, makes no mention of its employment, and it is not alluded to in any of the volumes of Ranking's Digest, or of Braithwaite's Retrospect, the latter periodical being conducted by a Surgeon connected with an ophthalmic institution, I conclude that it has not been extensively employed or has been entirely neglected.

If it be conceded that syphilitic disease, attacking the eye, does not, as shown by Dr. Jacob, confine itself exclusively to the iris, but engages the sclerotic and membrane of the aqueous humor, and if, as shown by Mr. France, the class of persons who present themselves with syphilitic ophthalmia are unsuited for general or local bleeding or active depleting measures (as indeed was proved long before by Hewson) it follows, that a substitute for mercurial treatment must, in such cases, be considered a great boon. Now it is precisely in such instances that the hydriodate of potash will be found serviceable, for it not only acts on the constitutional malady, but exerts a *specific* influence on the local disease, this I think no candid observer will deny who has perused the foregoing cases. The oil of turpentine has been much extolled for the cure of iritis, but nearly all practical men are agreed that it should not be substituted for mercury, and that its efficacy is best observed where mercury has completely failed or has not fully satisfied the expectations of the practitioner. When ophthalmia is combined with constitutional syphilis, no benefit to the system will follow its use; and if we are to credit fully the statements of Professor Porter, very little is likely to take place in the eye.* Yet in these very instances I have employed, with the greatest success, the hydriodate; which not only removed the constitutional symptoms, but, unaided by general or local depletion, or counter-irritation, completely and speedily subdued the ophthalmia.

It is not alone in syphilitic or strumous sclerotitis and sclero-iritis, that I have found it useful—it has proved equally so in the idiopathic and rheumatic forms of the disease. In some cases I have employed local depletion and counter-irritation, in others these measures have been avoided, but in all the *complete* removal of the inflammation was, in my mind, due especially to the hydriodate.

How often is the practitioner reluctantly compelled to use mercury, from a conviction that no other remedy will save the eye, although the debilitated condition of his patient, or his having been frequently salivated for the same malady, strongly dissuade him from its employment; yet the remedy is resorted to as the only one capable of affording relief. In such cases the hydriodate of potash must be considered an invaluable substitute. Again, how frequently does it happen that a patient either objects to taking mercury or is unable from the nature of his pursuits to do so; in such examples the preparations of iodine will be found most serviceable, as is proved by the case furnished to me by Dr. Howard.

But it is more particularly in the chronic form of sclerotitis and sclero-iritis that iodine will be found useful. Wardrop recommended the use of bark and tonics in the chronic form of the disease, where mercury and general and local measures had proved unavailing; and Lawrence and other writers speak favorably of this plan. Since I have employed iodine, I have seen these diseases yield so rapidly to its use, that I have not found it necessary to administer bark, except in some rare forms where the inflammation assumed an intermitting character—here quinine and iodine, given at separate periods, or in combination, as in the iodide of quina, will be found extremely useful. In one case where sclerotitis assumed an intermitting form and was combined with

* "The syphilitic ophthalmia, if allowed to progress without control or check, ends in the destruction of the organ; and this it will do under any treatment but the mercurial.—I care not what the line of practice is, it may be antiphlogistic or irritating, soothing or stimulating, without mercury, all or any must be unavailing; and I wish to impress this one practical fact upon you, because it must establish the necessity of being able to form a correct diagnosis."—*Porter's Lectures on Syphilis.*

rheumatism of the head, I succeeded in curing the disease by administering ten grains of bark, with an equal quantity of saccharated carbonate of iron, three times a-day.

In the administration of hydriodate of potash in ophthalmia, particularly when the inflammation is chiefly confined to the sclerotic, the same plan should be observed as when that remedy is used in inflammation of the fibrous membranes elsewhere, viz.: *to increase the dose steadily and daily if necessary, until a decided impression is made upon the local disease.*

The pain and throbbing of the eyeball will be much relieved by the use of a weak solution of atropia (two grains to an ounce of water) which not only acts as a *local anodyne*, but is the cleanest, cheapest, and most efficacious method of dilating the pupil, and thus preventing adhesions either to the cornea or lens. For this method of employing belladonna, I am indebted to the writings of Drs. Wilde and Jacob of Dublin.

In conclusion, I would remark, that I do not claim for the hydriodate of potash, the properties of an *infallible* specific in the forms of ophthalmia alluded to, but I do believe most firmly that in the great majority of cases it will be found equally as useful as mercury, and not open to the objections which might be urged against that remedy, and much more successful than turpentine (which by-the-bye cannot always be borne by the patient) in the very cases which experience proves to be the best adapted for the employment of this latter medicine; and in addition, it recommends itself to our notice as a powerful alterative in certain states of the system, in which turpentine is useless—and in which mercury would be injurious.

Art. XXXI.—CASES OF THE ENDEMIC FEVER OF CANADA, WITH UNUSUAL COMPLICATIONS.

By John Jarron, Surgeon, Dunnville.

On Monday the 13th August, 1849, I was requested to visit the family of Thomas C. Pinkett, living in a tolerably well cleared part of the Township of Conborough, and about two miles from the Grand River.

The neighborhood of this River is malarious, yet the people in their settlement had suffered little from fever for some years back.

I was informed that two of his boys had died suddenly during the previous week; and Mr. Nellis, who had attended them, accompanied me to the house, and reported, that on Sunday the 5th of August he had visited a son of Pinkett, and found him dying, with considerable dyspnœa and struggling for breath; and blueness about the nose and mouth very marked.

The father stated that he had complained of his throat about a week,—had lost his voice for three days; but had been up and going about until that evening.

That he visited another boy on Thursday the 9th August, who, on the Monday previous, had complained of sore throat like the former; he found him walking about with a good deal of fever, throat swelled; the tonsils, uvula, and pharynx, covered with what he considered to be slough. Had little doubt of the disease being cynanche maligna, and treated it with a small bleeding, calomel, and counter irritation.

On Friday, found him free of fever, but the other symptoms not improved.

On Saturday the fever had returned, though he went about in the house:—he died that evening.

This boy was constantly moving about from bed to bed; would throw himself down in a languid and depressed manner, and bury his head and face in a pillow. He swallowed freely to the last and had no dyspnœa. His breath was exceedingly fetid for some time before death, and the blueness of the face, hands and nails, was most decidedly marked.

An affection of the throat had appeared among the children at school, where Pinkett's children were, about a fortnight before my visit, and was taken for mumps. I visited several families, in order to examine the children, and found many ill. They had no external swelling of the glands, but the tonsils, pharynx and uvula, were a good deal inflamed and swelled, but without sloughs or any fever; and they all went about as usual.

I found his daughter Charlotte, on whose account I had been sent for, to be a tall, sickly girl of 14 years of age. She was lying on the top of the bed, with her extremities extended at full length, in a languid manner; the countenance and skin were of a dark yellow dirty hue; the eyes appeared muddy and destitute of lustre, while the upper lids hung down and covered about two-thirds of the balls; her intellect was perfect, and her answers to questions correct; though she appeared like one oppressed by some bodily or mental cause, resigned to her fate, and perfectly indifferent to her own state or anything that might pass around her. The expression of the countenance, the mode of lying, and general appearance of the patient, were what I had often seen in the East Indies, and which are there looked on as indicative of an approaching attack of cholera.

Her skin was hot, but dry and husky to the feel; pulse 110—tolerably full, but irregular and easily compressed, and affected by the least motion of the patient; there was no pain or tenderness of præcordia, and her only complaint was of slight headache and the affection of the throat.

On examining the throat I found a small slough on the left tonsil; the pharynx and tonsils were red and inflamed, but there was little swelling; the tongue was foul, but moist; she could swallow freely and with little pain. Had no dyspnœa; was lying with the head very low, with an evident disposition to turn on her face and bury it in the pillow.

I found she had experienced a slight rigor or chill on the evening before, followed by the present state of fever; and upon minute enquiry, I learned that she had suffered two attacks previously, at the usual interval of 48 hours. She had taken no medicine, and the bowels were rather costive than otherwise.

The case presented the appearance of a fever of the most intense congestive variety; and as cynanche maligna and scarlatina are frequently attended by such

a fever, the state of the throat led me to conclude that Mr. Nellis had formed a correct opinion of the disease from which her brothers had died, and that hers was a case of the same nature. At the same time, I informed him that I looked on the state of the throat as a secondary object, compared with a fever of the variety before us; and as neither dyspnœa nor difficult dejection had attended any of the previous cases, they having lain with their heads low and their faces buried in the pillows almost until the last, I suspected that their deaths must be attributed more to the nature of the fever than the local affection of the throat.

Venæ sectio to ℥x, in the recumbent position, reduced the pulse to a thread; did not produce syncope, but led her to declare her head greatly relieved.

℞ Hydrarg. Submur. gr. iv.
Pulv. Jalapæ.
—— Scammon; aa gr. iv. *m.* ft. Pulv.
8 tis horis sumendus.
Emp. Lyttæ gutturi.

I then examined the throats of the other children of the family, and found the same affection in three of them: one boy with a slough on the tonsil, but they were all free of fever and the peculiar congested expression of countenance.

Ordered a calomel purge for each, and the throats to be freely rubbed with turpentine liniment.

Tuesday, 14th August. Charlotte.—Found her sitting up, and walked about the house; but the same expression of countenance and languor continued; and when lying in bed, she assumed the same position, with the head low and buried in the pillow; there was no heat of skin; pulse 95: tolerably full though irregular when lying quiet, but the least motion reduced it to a thread; no thirst or inclination to eat.

The throat appeared much the same, and the slough had not increased in size, nor had any other formed; very little difficulty in swallowing and no dyspnœa; the medicine had operated freely on the bowels, and the blister risen well.

On attempting to apply the nitra argenti to the ulcers on the tonsil, found the slough to be only a little indurated secretion that rubbed off, and no ulceration or abrasion had taken place; but I applied the caustic freely to the inflamed surface of both tonsils.

Cont. pulv. ut heri, bis die.

Boy Edwin, aged 4.—His throat rather more swelled to-day, and he seems heavy and listless, though still going about; bowels freely moved by medicine.

Rept. liniment. et dos. purgant. H.S.

Other two girls better, and making no complaint.

Wednesday, 15th Aug. Charlotte—Had a rigor and evident accession of fever to-day, but of the same irregular and undeveloped character, and without perspiration; pulse 100, small and fluttering, with the same general languor and appearance of countenance; several stools from the medicine; discharges dark but not particularly offensive; inflammation of the throat rather increased, and extended to the pharynx and uvula, but is without false membranes.

℞ Ol Ricini ℥s, Statim sumend.
℞ Hydrarg. Subm. gr. iv.
Pulv Opii gr. ss.
— Ipecac gr. iij. *m.* ft. Pulv. H. S. sumend.
Cold lotion to the Head.

Edwin.—A decided attack of fever to-day; of the same irregular and undeveloped character as that of his sister's; his eyes and countenance have assumed the peculiar appearance of cholera, and the languid position of lying in bed so marked in the previous cases; his pulse is quick, but irregular and small, even when at rest; throat worse; small specks of false membrane, like sloughs, appearing both on the tonsils and pharynx. While examining the throat, he vomited a quantity of dark matter, with a most offensive odour, and smelling exactly as the matter vomited on the day before by another patient of mine, who, having recovered from an attack of congestive fever, had relapsed, and had a fit of ague.

Emp. Lyttæ, gutturi applic.
℞ Hydrarg. Submur gr. vi.
Pulv Opii gr. ss.
— Ipecac. gr. iv.
— Rhei. gr. vi. *m.* ft. Pulv. ij. bis die sumendus.
Wine and gruel to be freely given to both patients.

The variable state of the inflammation of the throat had led me to doubt this disease being cynanche maligna or scarlatina, while the decided intermittent character of the fever, the smell of the vomited matter, and other circumstances, excited my suspicion that I had only a complicated case of common fever to deal with. The shanty and appearance of the family were indicative of poverty and wretchedness. A minute inquiry into their circumstances disclosed that they had lived in a state of destitution for years; carrying to market every thing that would bring money; using up the refuse, which, with a scanty supply of buckwheat flour, had kept them alive, and enabled them to conceal the real state of their circumstances.

The shanty was also small, old, and the lower parts rotten and extremely offensive. Altogether, they seemed in the same state as one of the Irish families that famine and dirt had rendered subject to the variety of fever that had lately prevailed in that country.

Thursday, the 16th. Charlotte.—Appeared better and free of fever to-day; but the cholera appearance, languor, and state of the pulse continued; sitting up a good deal. No alteration in the appearance of the throat, but the voice becomes soft and very weak, as it had done in the fatal cases.

Habeat Quininæ Sulph. gr. viij. Statim et Nocte.
Cont. Pulv. bis. die.
Repet. et Emp. Lyttæ gutturi.

Edwin.—Much better; walking out a little, though the peculiar appearance and languor never leave him; bowels open three times. Throat much the same; no dyspnœa or difficulty of swallowing; voice gets soft and weak.

Habeat Quininæ Sulph. gr. iij. bis. die.
Cont. Pulv. ut heri.

The other members of the family make no complaint.

Friday, 17th. Charlotte.—Fever present to-day; of the same character but evidently lessened by the quinine; bowels freely moved; stools still dark; general appearance and symptoms much the same.

Repet. Quininæ Sulph. gr. v. bis. die.
Also the gruel and wine.

Edwin.—This being his fever day it is present, but seems lessened by the quinine; the general appearance and symptoms otherwise much the same; throat cleaner.

Cont. Quininæ Sulph. bis. die.
Rept. Pulv. Hydr. Opii. & Ipecac. ut heri.

Saturday, 18th. Charlotte.—Not worse, though the symptoms of depression still continue; a good deal more false membrane in the throat; the uvula is enlarged and covered with it; voice nearly gone; slight difficulty of swallowing, but no dyspnœa, and she lies with her head low as usual. The tongue gets clean and moist at the tip and edges, and puts on the appearance of one in a patient convalescent from fever; the yellowness of the skin is also lessened, but there is no tendency to perspiration. Took a dose of oil, and passed three or four dark and offensive stools.

Cont. Quinin.
Rept. Pulv. Hydr. Sub. Opii. et Ipecac bis. die.

Takes her wine and gruel with reluctance.

Edwin.—No apparent fever to-day; depression and tendency to sleep still great, though rather less at times, and he gets up and walks through the house. His throat is clear, but his voice has become a perfect whisper; breath very offensive.

Continue Quinine and Wine.

2nd girl, Sarah Jane, aged 11.—Last night she had a rigor followed by fever of the same imperfect character as had appeared in the other members of the family, which is now present, with the cholera expression of countenance and position of lying; pulse very frequent, small and irregular.

The throat is much swollen, with large patches of false membrane back of the tonsils; there is slight difficulty of swallowing, but no dyspnœa.

She is a very slight half-starved looking girl; and as this attack had been dreaded, she had taken a calomel purge every third night.

℞. Hydrarg. Subm. gr. iv.
Pulv. Jalapæ.
— Scammoniæ aa gr. iij. *m.*
ft. pulv. bis. die. sumend.
Applicet. Emp. Lyttæ gutturi.

Sunday, 19th.—The family were this day removed from their shanty, and placed in a large airy meeting-house, about half a mile from their residence, and well furnished with every necessary.

Charlotte.—An accession of fever to-day, which seems to have been increased by the death of her brother; pulse 110, small and irregular; skin burning hot and dry; and she complains much of the burning of her feet and legs; throat clearer; spits up patches of false membrane which causes slight irritation in the throat; but is still without dyspnœa or difficulty of swallowing.

Rept. Pulv. hor. somni.
Continue the wine and gruel.

Boy Edwin.—Had been tolerably well during the night, but in the morning began to change and sink just as the others had done before death. His breath became very fœtid, and respiration apparently more difficult, though he continued to lie with his head low and swallowed freely to the last. The blueness of the face and extremities came on about four hours before death, and were decidedly marked.

Sarah Jane.—Going about the house and tolerably cheerful, and seems to make light of her complaint; but the peculiar expression of countenance and general languor are present; pulse very small and irregular; throat much the same; three stools.

℞. Hydrarg. Submur. gr. xij.
Pulv. Opii. gr. i.
— Ipecac. gr. vi. *m.* et divide in pulv. iij. Capiat unum ter die.
Wine and Gruel to be given freely.

Monday, 20th. Charlotte.—No fever to-day; general appearance improved, but the languor and depression still continue to a great extent; pulse, when she is quiet, more regular and fuller; bowels moved; stools still black.

The false membrane in the trachea is getting loose, and causing irritation; she has brought up several pieces; one a perfect tube about four inches long; voice still soft and very weak.

Rept. Pulv. Hor. Somni.
℞. Opii. gr. ss.
Camphoræ. gr. iiss.
Spirit. Gallic. ℥iij. *m.* Ft. haust. 2nda q. q. hora sumend.

Sarah Jane.—An accession of fever of the usual character; throat full of membrane, and more inflamed than any of the other cases; bowels open two or three times; stools very black.

℞. Ol. Ricini ℥ss. Statim.
Cont. Pulv. ter die.
Haust. Camphoræ, Opii. and Spirit. Gall. 4 tis q. q. horis.

Tuesday, 21st. Charlotte.—Skin very hot and dry; pulse 120, firm and rather bounding, but irritable, (denoting excitement, and evidently showing the efforts of nature to throw off the congestion, and assume a healthy action); tongue and throat rather improved than otherwise; but patches of false membrane still adhere to the uvula and pharynx: discharged a large piece of membrane of a tubular form, and appearing to have come from the bifurcation of the bronchi. Stools rather frequent but small in quantity, and consisting of a dark viscid or pitchy matter; breathing still easy. There is no tendency to delirium or coma; nor has the least approach to this state appeared in any of the cases.

℞. Ol. Ricini. ℥vi. Statim sumend.
℞. Quininæ Sulph. ℈ss.
Rept. Pulv. Hydr. Opii. et Ipec. Hor. S.
Continue the stimulants every three hours.

Sarah Jane—No fever to-day; otherwise much the same; throat not improved and full of membrane; voice almost a whisper.

Cont. Pulv. ut antea & Reptr. Emp. Lyttæ. gutturi.
Continue the stimulants.

Wednesday, 22nd. No Report.

Thursday, 22nd. Charlotte.—The medicines were given, and stimulants continued regularly during yesterday, and there was little change on her until the evening, when her breath became most offensive, and she began to assume the appearance presented by the others a short time before death. She died at midnight;—about five hours previous her face became of a dark blue, almost purple hue; her hands and arms cold and of a blue color, the nails "like what her father had seen in cholera patients in London, during the year 1832."

She seems to have had no coma or difficult deglutition, and very little change in the state of the respiration until within an hour of death.

Sarah Jane.—This is her fever day, but it is not present; pulse more steady, regular, and full; skin soft and pleasant, though dry; expression of countenance improved, and her usual position of lying in bed altered; stools dark, but less offensive; ptyalism established, and of a healthy character. Throat could not be examined from the state of the mouth.

℞ Ol. Ricini ℥ss. statim.
℞ Quininæ Sulph. gr. v. bis. die.
Continue the stimulants.

Thursday, 24th. Sarah Jane.—Very weak and languid, but the cholera expression is completely gone; stools from the oil less dark and offensive, pulse regular, skin moist and natural. Voice seems stronger, though it is difficult to form a correct opinion on account of the ptyalism, which continues rather profuse.

Rept. Quininæ Sulph. gr. iv. bis die.
Continue the stimulants.

The peculiar symptoms of the disease never showed themselves again in this case. She continued the quinine and wine for a few days, and soon rallied, notwithstanding a very sore mouth, and inflammation from the blister. In it the symptoms were as regular and more severe than in any of the fatal cases at the commencement; and were unaffected by any thing that had been done, until ptyalism came on; but this making its appearance, the fever was suppressed, and the expression of the countenance improved at once, without a grain of quinine; and the peculiar disease of the throat was not again recognized, being mixed up with the mercurial state of the mouth; the black and offensive stools also disappeared, and were rapidly succeeded by healthy secretions; contrasting strongly with the two fatal cases, where quinine, stimulants, and the tolerably free use of calomel and purgatives, but which did not produce ptyalism, had no effect in arresting the disease or even mitigating the symptoms.

On examining the body of Charlotte the day after death, we found the vessels of the pia mater exhibiting a most extensive appearance of venous congestion, both in their trunks and branches; the points of vessels in the medullary substance of the brain were also much increased in number and size, and the vessels of the choroid plexus gorged with black blood, but no effusion between the membranes or in the ventricles.

There was no false membrane or ulcers on the tonsils or pharynx; but the larynx and trachea, to the bifurcation of the bronchi, were lined by a most perfect false membrane.

The chest contained about a pint and a half of bloody serum; both the pleura and lungs were without the slightest mark of inflammation. The bronchial tubes were open, and here and there a little fluid could be pressed from them.

The abdomen and the external appearance of its viscera were normal; the gall bladder contained a considerable quantity of ochry colored fluid, which had dyed the lobes of the liver, duodenum, and stomach, where they came in contact with it.

The stomach was rather paler externally than the intestines, and distended with gas. Its internal coats were lined with a matter of the same color as the bile, but the smell issuing from it was so offensive as to oblige us to desist from pursuing our inquiries further, though most anxious to do so, and to examine minutely the appearance and nature of the secretions of the stomach, liver, and duodenum, the vitiated state of which I am inclined to look on as the primary cause of the many and various symptoms of this complicated disease.

There was no offensive odor from the trachea or lungs, so that the fetid breath preceding death in all cases must have proceeded from the state of the stomach and its secretions.

Elizabeth, aged 16.—This girl had been at service in the immediate neighborhood for about a year, but came home to assist her mother when the family were taken ill.

On my first visit, I noticed that she was stouter than the other children, and then had none of the dark and muddy complexion so peculiar to them and the parents; but, as I watched her closely, I could perceive a gradual change in the countenance and color of the skin, which had assumed the usual dingy hue a few days before she was taken ill, notwithstanding repeated doses of mercurial purgatives.

On Friday, the 24th instant, she had a cold chill, followed by fever and languor, and complained of pain and uneasiness of the throat.

I saw her in the evening of Saturday the 25th, and found that she had suffered from fever during the day, and then lay in bed with habits and symptoms exactly resembling those of her late sister Charlotte; the same expression of countenance and drooping of the eye-lids; the general languor and indifference, which contrasted strongly with her previous activity and sharpness; the same position in bed, and tendency to bury her face in the pillow.

The tonsils and pharynx had a dark red appearance, with several specks of false membrane, and she complained a good deal of her throat; pulse 110, regular and tolerably firm when quiet, but rendered less so by the slightest motion; skin hot but dry; respiration

natural. She did not complain of headache, nor could the least tenderness of abdomen be discovered on pressure.

Had taken two doses of calomel and oil during last week, and had passed some very dark offensive stools from one of them during the day.

Venæ sectio, ℥xij, produced a decided effect on the system, but no syncope. She declared "it had taken a load off her head."

℞ Hydrarg. Submur. ℈ss.
Pulv. Opii. grss.
—— Ipecac. gr. iij. *m.* ft. pulv.
8 tis horis sumend.
℞ Emp. Lyttæ. gutturi.

Sunday, 26th.—No fever to-day, and has been out of bed a good deal; countenance improved; eye-lids raised; no pain; throat clean and less red; three stools, less dark and offensive; pulse 98 soft but regular; skin pleasant and rather moist.

Cont. pulv. ut heri.
Habeat. Ol. Ricini ℥i. cras mane.

Monday, 27th.—No fever to-day; bowels freely moved by the powders and oil; stools less offensive; pulse 90; throat still red but no exudations.

Reptr. pulv. ut. antea. hor. som.

Tuesday, 28th.—The Cholera expression of countenance and habits almost gone, and her eyes assume their usual lustre; the skin is moist and more natural in color; complains little; no false membrane in the throat, though it is still red, and the uvula elongated; voice strong and natural; pulse 86, soft and regular, but not strong; tongue moist, but foul; gums puffed, and getting sore from the calomel. Takes food freely.

℞ Ol. ricini. ℥i. statim.
Wine ℥iv. during the day.

Thursday, 30th.—Going on well; peculiar appearances entirely gone; no membrane in the throat or loss of voice; bowels freely moved, ptyalism free; pulse 100, rather irritable.

℞ Hydr. Submur. gr. v.
Pulv. Opii. iss.
—— Ipecac. gr. iij. *m.* ft. pulv. H. S. S.
℞ Ol. Ricini. ℥i. cras. mane. sumend.

Friday, 31st.—Bowels freely moved by the medicine; stools natural; appetite tolerably good, with little or no complaint, though very weak.

Took quinine gr. v. twice a day for a week, with wine and proper food; and has hitherto had no relapse.

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The above cases present a combination of symptoms seldom met with in one disease, while the uniformity of their appearance and progress, in so many cases, is rarely equalled even by the exanthemata. They set nosological systems at defiance, and can scarcely be brought into any of Cullen's Genera.

The intermittent character of the fever, and the disordered and depraved state of the gastric and hepatic secretions, led me to look on them as cases of our common Canadian Endemic; the affection of the throat being only one of the many accidental occurrences with which such fevers are frequently complicated; the course and progress of this being again modified by the nature and variety of the fever, which was either of the most intense congestive variety, with strong tendency to collapse; or a combination, in the same cases, of intermittent fever with cholera. The appearance of the countenance, and the position of lying in bed, which I have attributed to cholera, might be questioned, as the profession have few opportunities of seeing and seldom look for the disease in the stage previous to the occurrence of purging, vomiting, and collapse; but the blueness of the face and hands previous to death could arise from no other cause than cholera in the system.*

The cholera, notwithstanding the extent of its sweep throughout the world, and the number of its victims, is still the opprobrium of the profession. European and American science has added little or nothing to the observations and deductions made by the profession in India, soon after its appearance there in 1817, while their mode of treatment, which was early characterized as only a system of "Rational Empiricism," is still found in every quarter of the globe to be the most successful.

The course of epidemic cholera in America during the present season, as well as the progress and termination of individual cases, differ materially from the disease as recorded by East India practitioners. There, it was generally looked on as a disease sui generis, arising from its own specific cause, and incapable of being mixed up with or modifying the usual fevers and dysenteric affections of the country; while here, the usual bowel complaints and fevers have been found to run into cholera, which either carried off the patient in the stage of collapse, or left him in what is now called typhoid remittent, being the last stage of every fatal case of the endemic of the country; and cases originating without previous bowel complaint or fever, as was usual in India, have also been found to terminate in bilious remittent fever.

Although the Indian practitioners generally looked on cholera as a disease sui generis, yet, several of them started the idea that it was only a modification of their usual bilious fevers, and quoted Dr. Armstrong's description of congestiae typhus as a proof of such a modification in common fevers.

The writer of the preface to the Bombay Report on Cholera, after this quotation states, "Those who are most intimate with the disease in question, (cholera), in all its various modes of attack, will be struck with the great similarity between the two diseases at their first appearance; the circumstances of which seem clearly to point out that changes somewhat similar, if not the same, take place in both, especially in their early stage. Experience has also proved that those morbid changes are to be best counteracted by the same remedies."

* Having carefully perused Dr. Jarron's paper, we cannot coincide with him in his conclusion. We see nothing in his description of the cases which he has given, to warrant us in believing them to have been anything else than cases of cynanche maligna. —Ed. B. A. J.

Many letters in that report bring up these opinions, in nearly the same language. Cholera, in the usual acceptation of the terms, has been confined to certain towns in America, and the published reports of the disease in all of them, seem to corroborate my statement; but if the appearances described in these cases, at their early stage, the blueness of the face and hands, in cases of other affections, previous to death, and the tendency to congestion in the usual fevers and fluxes of the country, are to be looked on as cholera, it was an every day occurrence, during the months of August and September, in my neighborhood, though we had no case of it in the usual form.

The profession can only arrive at a scientific mode of treating any disease by being fully aware of its origin, and the cause of its symptoms. The theory of cholera is still unsettled, hence the variety of practice in the disease, and the many specifics and nostrums for its cure.

I will not attempt to settle such an important and long contested point, but, if you can find room for them in your journal, may perhaps trouble our brethren with a few remarks on the origin and variety of bilious affections and conjectures on the connections of these diseases with what is now called cholera.

ART. XXXII.—THE CHOLERA IN COBOURG, C.W.

By GEO. GOLDSTONE, M.D., Cobourg, C. W.

For your information I have procured from the Secretary of the Board of Health, a list of the cholera cases reported by the medical gentlemen of this town. By this list I find 21 cases reported, of which 14 died and 7 recovered. The first case was on the 10th August, but to my own knowledge cases occurred as early as the middle of July; and I expect before that period. The last case was on the 8th September. Nearly all were among the residents, and predisposed to the disease, wanting the comforts and even the necessaries of life. As far as I can learn, all had neglected the premonitory symptoms.

In addition to the cases reported to the board, there prevailed in the town throughout the summer, a very unusual number of bad cases of common cholera, and scarcely any one passed the summer without more or less derangement of the stomach, &c. There has also been a good deal of dysentery and diarrhœa, both of which, as well as common cholera, were very manageable when attended to at an early period.

There has been nothing unusual in our treatment of cholera—large and small doses of calomel, tr. ferri mur, sulphur, &c. Stimulants internally and externally have all been tried without any benefit. In fact, in all those cases which are in a complete state of collapse, it appears to me that no treatment has any effect.

In all the severe cases of common cholera in my own practise, about 40 in number, and which I believe many physicians would have reported as Asiatic cholera, my plan was to give ten grains of calomel with two of opium in form of pill, to keep my patient quiet in bed; and apply hot flannels to the extremities and to the abdomen. I invariably found my patient much relieved within half-an hour, and within an hour completely so of all distressing symptoms, such as vomiting, purging, pain in the abdomen, cramps in the hands and feet, &c.

Five hours after the pills, one ounce of castor oil was given, and it was generally requisite to repeat the oil three hours afterwards, when an enormous quantity of the most offensive fœces was discharged. None of those cases required any particular treatment afterwards; they all recovered in a few days' time.

The advantage of giving the calomel and opium in the form of pill, is that the patient is less likely to reject it, and if he does, the pill can be seen and the dose repeated.

I send you the foregoing in compliance with your wish as expressed in the journal.

Cobourg, Oct. 16, 1849.

(We would feel obliged if some of our medical friends in the other cities of the province will report, at as early a period as possible, the progress of the disease in their several localities.—ED. B. A. Jour.)

ART. XXXIII.—*Introduction to Meteorology*, by DAVID PURDIE THOMPSON, M.D., L.R.C.S.E. Wm. Blackwood & Sons, Edinburgh and London, 1849. Royal 8vo. pp. 487.

In the foregoing work Dr. Thompson has done good service to science. The description of the various meteorological phenomena, in a single publication, was a desideratum, and well has the duty been discharged. The subject is treated of under 18 different chapters, with an appendix. The two first chapters have reference to the atmosphere, chemically and physically considered. The third and fourth to the important subject of caloric, with full remarks on the isothermal, isogeothermal, isotheral, and isochimenal lines. The fifth has reference to the color of the atmosphere, and the various subjects connected with refraction and polarization, &c. Chapters 6, 7, 8, 9, refer to evaporation, dew, rain, and hail, in all their varied forms. Chapters 10 and 11 treats of the rainbow, solar and lunar, halos, anthelia, parhelia, paraselenæ, mirages, &c. The 12th and 13th to lightning, fireballs, meteorolites, asteroids, &c. The 14th to the aurora borealis, zodiacal lights, with the various theories proposed. The 15th, 16th, and 17th to winds, and their various phenomena and theories. Chapter 18 treats of prognostications; and the Appendix describes the most important meteorological instruments now in use.

To all students of meteorology, and pursuing it in one or more of its branches, the work presents especial claims to notice. Like all the publications of the house whose name appears on the title page, it is very handsomely got up.

ART. XXXIV.—*A Manual of Auscultation and Percussion, by* M. BARTH *and* H. H. ROGER, *translated with additions by* FRANCIS G. SMITH, M.D. *Philadelphia: Lindsay and Blakiston,* 1849. 12mo. pp. 167.

This little work (as its preface states) is a translation of the *Resumé* of the second edition of Barth and Roger's excellent manual of Auscultation and Percussion, published in Paris in 1844. The original is now before us, and on comparing Dr. Smith's translation with it, we find that he has included all the essential parts of the treatise. The larger work will still be consulted by him, who wishes to become intimately familiar with the minutiæ of the science; but for the beginner, and the practitioner, whose time is much occupied, we consider the translation well adapted, and to this class of readers we have much pleasure in recommending it.

PRACTICE OF MEDICINE AND PATHOLOGY.

On the Development and Functions of the Spermatozoa. By Drs. WAGNER and LEUCKARDT.—The elaborate inquiries of the authors into the constitution of the seminal fluid of different animals, have led them to some new and valuable results, which tend to modify in several particulars the opinions formerly entertained. The account which they now give of the origin of the spermatozoa is as follows: 1. All spermatozoa originate in "formative vesicles," which appear to resemble the secreting cells of glands, in being metamorphosed epithelium-cells of the glandular tubuli or follicles. 2. From these formative vesicles, the spermatozoa are produced in one of the three following modes: *a*, by the conversion of the cell-membrane and nucleus of the formative vesicle itself into the spermatozoon, a method in which the change is the least possible, and which is only found among the Nematoid worms: *b*, by the metamorphosis of the nucleus of the formative vesicle into the spermatozoon, a method which is much more common, especially among the lower animals, in many of which (as Chilopoda, Acarina, and Entomostraca) the spermatozoa remain as solid massive corpuscles, resembling the nuclei from which they sprang, instead of having the filiform shape of ordinary spermatozoa; *c*, by the endogenous development of cells originating in the nucleus of the parent cavity, each young cell producing a spermatozoon within it. This last method is that which we find in all the higher animals; but its latter part may take place in two ways. The parent vesicle may burst and set free the young cells, before the latter have begun to form the spermatozoa, which then evidently issue from them. But it frequently happens that the development of the spermatozoa takes place, whilst the cells within which they are formed are yet within the parent vesicle; and the walls of these cells give way, so that the spermatozoa come to be associated together in bundles within the parent-cells, as formerly described by Wagner, and are finally set free by their rupture.

The authors have come to the conclusion that the spermatozoa are the essential constituent of the semen; having met with cases in which the liquor seminis is altogether absent; and being also greatly influenced by the apparent impossibiltty of the fertilization of ova by liquor seminis, when there is no copulation, and the semen is diffused through water, as in most fishes.—*Cyclop. of Anat. and Phys.*, Part xxxiv.

[The importance of every subject connected with Cholera, would plead, apart from the interest attached to the subject, an ample excuse for the republication of papers upon it. A new vein has, however, now been opened, with the probability of results of great magnitude. It is with these impressions that we submit the following excellent paper to our brethren in these Provinces, and beg to direct their attention to the various matters incident to this question.—ED. B. A. J.]

Report of a Series of Microscopical Investigations on the Pathology of Cholera, by F. BRITTAN, M.D., M.R.S.C.L., &c, Lecturer on General Anatomy and Physiology at the Bristol Medical School.—The phenomena of such a disease as cholera, a great pestilence which sweeping over the world, involves all lands and all nations in one common dread and mourning, awaken an universal interest far more deep and anxious than any ordinary curiosity in the current of passing events. The medical profession has been appealed to, but with the effect, unfortunately, rather of increasing the mystery and apprehension, than of imparting confidence. It must be honestly confessed that we know nothing of the exact nature and cause of cholera, and in the absence of any one common point on which all professional men are agreed, it would seem as if each considered himself at liberty to throw out his opinions and theories, though based on no previously recognized principle and without a single well-ascertained fact to support them,—perhaps in the vain hope that at last, in their very multiplicity and variety, some one must hit upon the true explanation. Thus it is that our daily papers and medical periodicals teem with historics, theories, remedies, and even specifics, of so directly opposite character, all eagerly devoured by the public, and all alike falling before the test of inquiry and experience, until the disease has begun to be looked upon as a hopelessly inscrutable mystery, and any thing that is put forward in regard to it as only another baseless speculation.

Influenced by these circumstances, I have been most anxious to avoid doing or saying anything that could add to the confusion, or mislead those who are really studying the disease, from the right path, and have refrained from making public my own opinions, until the facts they were based on had been submitted to the examination of those most competent to give an opinion on their validity. I have now done so. I have shown to some of the best microscopical authorities in the kingdom my own specimens prepared from cases described in Table I., and represented by the engravings. I have substantiated them on examples furnished by these gentlemen themselves, and it is with their full concurrence and assurance of their importance that I lay the following facts before the profession. It must be borne in mind that they are put forward as facts, and not mere opinions, and that the validity of my statements have been and can be demonstrated to be true or false by any one who will take the trouble. In order, however, to simplify the whole matter as much as possible, I shall confine myself to a plain historical detail of the investigations.

On Monday, July 9th, in conjunction with Mr. J. G. Swayne, as fellow-member of a sub-committee appointed by the Bristol Medico-Chirurgical Society for the microscopic investigation of choleraic evacuations, I examined two specimens of rice-water dejection (numbers 1 and 2 in both tables); and on comparing our drawings made from them, and produced before the sub-committee, we were struck with the peculiar appearance of certain bodies depicted in each. On further prosecuting this investigation, I found these bodies to be constantly present in the rice-water evacuation of cholera patients, and offering the same characteristic appearance that distinguished them from anything I had before observed. In order to ascertain if they bore in their size or quantity any relation to the severity of the symptoms, I endeavored to obtain specimens passed by the same patient at different periods, as well as to complete the observation by an account of his condition at the time. The result was, that as several cases in my table indicated, and as other cases not recorded seemed to prove, I became convinced that a certain relation does exist between the size and number of these bodies, and the time elapsed after the seizure, taken in connection with the severity of the symptoms. That is to say, they are small and clearly defined in the matter vomited; they become larger and more compound in the

dejection; and as the disease progresses favorably, where I have had the opportunity of examining, they vanish as the symptoms disappear, and the motions regain their natural appearance. I have also found that in very rapidly fatal cases these bodies are sometimes to be met with only in very small quantity, or are altogether absent, though this observation must be qualified by the remark that it is not always possible, or at all events has not been with me, to obtain portions of every motion passed, and that these bodies might have been present in those not examined.* It must also be recollected that but a small quantity is saved for investigaton, and but an infinitesimal part of that even ever comes actually on the stage of the microscope. My observations contained in Table I. were made on cases taken just as they came under my notice, and without selection; some in the cholera hospital, some through the kindness of Mr. Ralph Bernard, in the Bridewell; they extend in dates from July the 9th, to July the 30th. Whilst collecting this series, I examined and compared the specimens with others obtained from patients free from cholera. I found that in healthy solid motions these bodies did not exist, nor could I meet with them in the fluid stools of typhus and other diseases, but that they were present in the cases of severe choleraic diarrhœa so prevalent in districts where the disease abounds; and I was thus led to the necessary inference that these bodies were peculiar to the evacuations of cholera patients, and must have some essential relation to the disease.

The observations contained in table II., collected by Mr. Swayne, on cases in the cholera hospital, with the exception of Nos. 1 and 2 (the cases from the comparison of the drawings of which we were first led to notice these peculiar bodies), were made subsequently to mine, and date from August 2nd to the present time. He was prevented from continuing these first investigations with me, and as his observations were taken quite independently of my own, which they so fully confirm, I have thought it better to give them in a separate form.

Having been thus led to consider these bodies (which, from the characteristic of their appearance, I have termed annular bodies), in some manner essentially connected with cholera, I wished to ascertain whether it might be as cause and agent, or effect and product: that it could not be the latter seemed evident at once from the fact that they were unlike any of the known healthy or morbid elements of the body, or secretions, and as they were found in the vomited matters apparently in an early stage of development, it seemed probable they were introduced from without, and would be met with in the atmosphere, &c. of places where cholera was rife. Accordingly, with the view to test the truth of this supposition, on July 19th, with the kind assistance of, and an apparatus suggested by, Dr. Bernard, I condensed about 3j. of fluid from the atmosphere of a room in a house from which five patients had been removed the day previous to the cholera hospital, † and found in it bodies of a similar appearance. I soon afterwards repeated the experiment, with the aid of Mr. Ralph Bernard, in a cell in the bridewell, which had been unoccupied for some time, but adjoining cells the occupants of some of which had been seized with cholera, one of whom died the day before. Here, also, the same result was obtained. The same experiment was then tried in situations free from cholera, but with a negative result: the fluid here obtained was destitute of these bodies, and contained only small portions of hyaline structureless matter, also observed in the first. I have since repeated these experiments, aided by Dr. William Budd, several times with the same positive and negative results, and therefore feel justified in stating that the same will follow similar investigations made elsewhere, if the necessary care be taken, and a glass of sufficiently high power (I used a Ross's 1-12th) be employed. The only question remaining is, as to the identity of the annular bodies thus shown to exist in the atmosphere of cholera districts, and in the vomited matters and evacuations of cholera patients. Most of those to whom I have shown the specimens entertain no doubt on the subject, and all seem to concur in their identity of form.

This is all that is possible in respect to matters of such extreme minuteness, and we must, I imagine, be satisfied here, as in similar cases, to form our opinion on circumstantial and corroborating evidence. And when we consider that this form is in itself of too definite a character to be one of mere chance; that the sizes are progressive, accurate measurement showing those in atmosphere to average from the 10,000th to the 3,000th of an inch in diameter; those in the vomit, from the 8,000th to the 5,000th; those in the dejections, from the 6,000th to the 500th; whilst they are met with in the same specimen of dejection in all the intermediate stages of palpably the same object;—the inference is, it appears to me, conclusive, that the annular bodies of atmosphere, vomit and dejection, are but the three stages of development of one and the same body, or whatever nature it may be. I have seen some very large, occasionally entire, but more frequently broken with a sharp irregular fracture, the morsels presenting in some measure the same characteristic annulus as the parent cell did. Their form is too peculiar to need further comment, the light ring round them giving a peculiar cupped appearance, which is unmistakeable, especially to one who has seen the drawings.

Having thus given a detailed account of the mode in which I was led to the discovery of these bodies in the atmosphere and evacuations, it might be expected that I should enter more fully into a description of their nature; but, as I have stated in the commencement of this report, my object is simply to lay before the profession the facts as I have found them, that they may receive the attention and examination which I believe they deserve, and be tested and proved by a repetition of my own experiments. To this end I shall be happy to give any information to those desirous of prosecuting the research, fully satisfied that the more they are examined the more fully will they be established, and the more important will be the results that may flow from their knowledge, and with the earnest hope that we may through them obtain, if no more, at least one common ascertained fact on which the profession may be agreed, and by which our inquiries into the cause and effect of this and other allied diseases may be directed in the right path.

On this account, also, I have studiously avoided giving any opinion at all on the facts brought forward, lest I might by so doing distract attention from them, and because I would wish them to stand alone as a fixed and demonstrated truth, from which others, as well as myself, may draw their inferences.

I have necessarily formed opinions, and been led by circumstances which occur only in the actual practical investigation of such subjects, to conclusions which may or may not be approved by others, and I should therefore wish these to be considered as totally distinct from the facts stated in this report, and shall probably make them the subject of a paper in a future number.

P.S.—Since the above was placed in the printers' hands, I have been kindly furnished with the following letter from Mr. Quekett, for publication. The opinion of so high an authority will bear, I am sure, great weight.

Clifton, Sept. 21st, 1849.

Royal College of Surgeons,
Sept. 20th, 1849.

My Dear Sir,—I have carefully examined the specimens procured by you from the air of cholera districts, choleraic vomit and evacuation, submitted for my opinion on Friday, September 14th as also a specimen obtained from the atmosphere this day, and have no hesitation in stating that in my judgment they are successive stages of development of the same body, which I believe to be of a fungoid nature.

Yours very truly,

John Quekett.

Dr. F. Brittan.

* On every opportunity that I have had of examining the intestines of those who died from cholera, these bodies have been found adhering to the mucous membrane in shreds of white matter, and very abundant; and the inference is, that in these very rapid cases they are in the intestines, though not given off in the evacuations.

† No. 8 and 9 are two of these cases, and two of the others died.

TABLE No. I.

Sex.	Age	Date of Seizure.	Date of Evacuation after Seizure.	Character of Evacuation.	Granules and Granular Cells.	Annular Bodies.	Muscular and Vegetable Tissue.	Animalculæ.	Crystals, Blood, Epithelium.	Observations.
1 F	18	July 10	12 hours	Rather thick	Many	Many	Abundant	None	None	Collapse extreme, no urine, died 13th July
2 F	6	July 9	12 hours	As usual	Single and in masses	Few	Abundant	None	None	Recovered, collapse light
3 F	6	July 10	6 hours	As usual	Ditto	Few	Abundant	None	None	Died 13th
4 M	70	July 11	7 hours	Passed in bed under him, but the flocculi examined continued.	Many	Not seen	Abundant	Sarcina ventriculi.	None	Evacuations always passed under him
			24 "	Ditto	Many	Many	Abundant	Ditto	None	Hyaline, jelly-like matter, more stringy; contained large cells like ova
			36 "	Ditto	Many	Many	Abundant	Ditto	None	Last motion darker, but reaction never fairly came on: died 15th
5 M	40	July 12	28 hours	Fluid, almost without flocculi	Many	Few, very small	None	Vibriones, very many.	Few large phosphates	Convalescent 14th
6 M	30	July 17	8 hours	Very fluid	Many	Many	None	None	Crystals	Very severe and rapid case; died same day
7 F	35	July 14	5 days	Semi-opaque, without sediment.	Many	None	None	None	Crystals in abundance	No reaction; query was it urine? lingered a long time, then died
8 M	40	July 15	4 days	Yellow ever since seized, fluid, with flocculi	Many	Many dyed yellow	None	None	Phosphates	21st, severely salivated; recovered
9 F	4	July 17	2 hours	Very transparent fluid	Many	Many very clear	Vegetable	None	Crystals	Died 11 A.M. 17th
10 F	30	July 17	24 hours	Passed under her in bed	Many	Few	None	None	None	Collapse moderate from the first, but without any good reaction
			48 "	1st in pain	Ditto	Many large	None	None	None	
			72 "	Darker and thicker	Ditto	Fewer	None	None	None	Passed a little water
			96 "	Dark green, very viscid	Ditto	Fewer	None	None	Crystals	No cramp; no vomiting; had arrowroot and broth; recovered
11 M	40	July 20	8 hours	Yellow fluid, with flocculi	Many	Few	None	Many, and vibriones.	None	Died same day; evacuations yellow from the first: this man came from London the night before
12 M	—	July 19	12 hours	Alkaline, very transparent, with semi-transparent flocculi.	Many in hyaline matter	Few	Abundant	None	Epithelial scale	Acid. Acet. caused most of this matter to disappear, but did not alter the annular bodies; died same day

13	F	45	July 20	20 hours	As usual	Many	Few, small	None	None	None	Collapse not deep; passed urine all the time; recovered, after 2 weeks in Convalescent Ward
14	M	35	July 21	2 hours	Without flocculi	Few	Few	None	None	None	Collapse moderate, now subsiding; passed urine; recovered
15	M	—	July 23	9 hours	Very clear, fluid, with small hyaline flocculi	Many	Few, small	None	None	None	Vomiting and decided collapse; passed very few evacuations; that 22 hours after seizure was the last
			July 24	22 hours	Ditto	Many	Few, small	None	None	Few Crystals	Died 7 A.M.
16	F	25	July 23	24 hours	Very clear, fluid, with flocculi	Many	None	None	None	None	Decided collapse; pulse and voice-less; about 4 oz. urine drawn by catheter
				30 hours	More viscid	Many	Many, small	None	None	Crystals	Warmer; only evacuation since morning
				72 hours	Flocks like jelly	Many	None	Vegetable	None	Stellate, and dark lithic acid	No urine since above; heat fair; pulse fair; passed about 1½ pint of very thick whitish urine
17	F	25	July 30	7 days	Dark green thick fluid	Many	None	None	None	Phosphates, chlorate of potash, and irregular	Only evacuation during last 72 hours; recovered
18	F	24	July 26	12 hours	Clear, with white flocculi	Many	Only 2 or 3 observed.	Very little	None	None	Collapse extreme; not much purging, but incessant vomiting; died 28th
19	F	26	July 29	4 hours	Very fluid, scarcely any flocculi	Many	Many	Little	None	None	
				9 hours	Same	Many	Many large	None	None	Stellate	
				21 hours	Thick and viscid						Died
20	F	30	July 24	2 hours	Very liquid	Many	Many	Vegetable	None	Phosphates	Diarrhœa yesterday, with rice-water evacuations; no decided collapse; no vomiting; no cramps; heat and pulse fair; voice ordinary, but eyes rather sunk
				12 hours	Ditto	Many	Many small	Vegetable	None	Phosphates	More collapsed
				26 hours	Ditto	Many	Very many	Vegetable	None	Phosphates	Colder and more collapsed; pulse and voice not very much altered; says she passes urine with evacuations
				48 hours	Yellow, viscid like, thick gum, without flocculi	Many	Few	Vegetable	None	Phosphates, and others in stellate and irregular masses	Same
21	F	20	July 24	6 days	Very flocculent	Many	None	Vegetable	None	Ditto	Recovered

Case VII. I was unable to obtain any other specimen from this patient, and, as the observation states, there was strong reason for supposing it to be in great part, if not entirely, urine.—Case XVI. It will be remarked that in the first specimen examined no annular bodies were found; that they were plenty and small in the next, six hours afterwards, and none again in the next, forty-two hours later—the intermediate not having been obtained; that in the next passed after recovery, four days later, there were also none to be met with.

TABLE No. II.—By J. G. Swayne, Esq.

No & Sex.	Age.	Date of Admission.	Date of Evacuation	Character of Evacuation.	Mucus.	Annular Bodies.	Muscular and Vegetable Fibre.	Epithelium.	Blood.	Crystals.	Observations.
1 F	18	July 10	24 hours	Tolerably clear. Rice water, with thick white flocculent deposit	Little	Tolerably abundant; medium size.	Both	None	None	None	Died, July 13
2 F	6	July 9	12 hours	Ditto	Much	Few and small	Both	None	None	None	Recovered
3 M	25	July 31	Aug 3	Thin, serous, and reddish	Little	Few; of medium size, more or less broken	Vegetable	None	Abundant and altered in shape	Phosphates Lithate of ammonia, with lithic acid, and dum-bell crystals of oxalate of lime	Recovered, although a rather severe case
4 F	17	July 27	Aug 2	Semi-fluid, and tinged deep yellow, with bile; very large whitish flocculi.	None	Many; mostly very large; containing small cells; their walls thick and distinctly cellular in structure	Vegetable	None	None	Lithate of ammonia; black rounded granules	Recovered
5 M	26	Aug 1	Aug 2	Thin yellowish matter vomitted.	Little	Few and small, with distinct walls	Starch and oil-globules	Much	None	None	Not a very bad case. Recovered
6 M	—	Aug 3	Aug 3	Dark red, bloody; chiefly grumous blood	Little	A few large and small	None	None	Abundant	Phosphates	Recovered. This man lost the tip of his nose from gangrene, which came on during collapse.
7 M	19	Aug 3	Aug 5	Thin, with flocculi	Little	Few	Both	None	None	Large Phosphatic crystals	Recovered
8 M	42	Aug 4	Aug 5	Thin, with dirty white flocculent precipitate.	Little	Very many; some large; the greater part small, forming almost the entire precipitate, with some granular amorphous matter.	Both large cells, with transparent walls containing raphides	None	None	None	Recovered
			36 hours	Very thin and watery	Plentiful	Very few; medium	Starch granules	None	None	None	
			Aug 7	Thin, with flocculent deposit, and much colored with bile	Little with hyaline basis	Not very abundant	Both	A few scales	None	Phosphates	
			Aug 7	Thin, serous; yellow matter vomited	Little	Very few, and not distinct	None	Plenty, chiefly tesselate	None	None	

9 M	13	Aug 5	24 hours	Very thin, and serous	Little	Very few, and not very distinct	Vegetable containing raphides	None	None	None ; a plentiful deposit of black amorphous matter.	Died on the 11th
			2 days	Thick, and greyish black	Much, with hyaline basis	Abundant ; some very large and containing others	Ditto and starch	None	None	None ; black amorphous matter	
10 M	14	Aug 7	Aug 7	Thin, and slimy	Ditto	None	None	Squamous	None	None	Recovered
				Thin serous matter vomited	Very little	Very few, and not distinct	None	Ditto much	None	None	
11 F	18	Aug 9	Aug 9	Thin and serous, with hardly any deposit	Very abundant	None	None	None	None	A great number of small polyhedral crystals, common salt (?) some black amorphous grains	Unusually severe. Died in a few hours
12 M	43	Aug 11	12 hours	Thin and serous, with slimy mucous deposit	Ditto	A few, not very large	None	1 or 2 scales	None	Ditto	A very severe case. Collapse extreme. Died on the 12th
13 M	46	Aug 11	12 hours	Thin and serous	Little	Several of tolerable large size and deep brown color, some containing very distinct cells of small size ; a great number of the latter floating	None	Tolerable plentiful squamous	None	Ditto	Recovered
14 M	35	Aug 11	Aug 11	Thin and mucous	Abundant with granules	Very few or none. There were a few large granular cells, but these were by no means distinct	A few vegetable cells	Not much squamous	None	None	Recovered
15 M	30	Aug 14	Aug 14	Thin and clear, depositing transparent shreds	Very many, with hyaline basis	Hardly any, and these doubtful.	Vegetable cells and fibre	None	None	Phosphates and long prisms	Recovered
16 M	28	Aug 14	Aug 14	Thin and gelatinous	Plentiful, with granular matter	But few and much broken ; some small cells of a deep brown color, and aggregated together in form resembling annular bodies	None	None	None	Large Crystals of phosphates	Severe case, and died on the 16th
17 F	9	Aug 14	Aug 14	Thick and flaky	Not much ; hyaline matter, sprinkled with very fine granules and black amorphous matter	A few large, more or less broken	Starch, vegetable cells, and fibre	A few scales	None ; oil-globules	None	Died on the 16th
18 M	10	Aug 15	Aug 15	Thin matter vomited	Little	A few large cells, their walls very distinctly cellular ; a vast number of small cells, some oval ; mostly aggregated like torulæ	A great many vibriones, also paramœcia, exhibiting a very active movement	The squamous form plentiful	None	None ; black amorphous grains	Died in secondary fever on August 20

TABLE No. II.—*Continued.*

No. & Sex.	Age.	Date of Admission.	Date of Evacuation	Character of evacuation.	Mucus	Annular Bodies.	Muscular and Vegetable Fibre.	Epithelium.	Blood.	Crystals.	Observations.
19 M	47	Aug 20	Aug 20	Tinged with bile, with thick flocculent deposit	Not much hyaline basis	Very abundant and distinct; some very large. The flocculi chiefly composed of them.	Vegetable cells and fibre	None	None	A few prisms	A bad case. *Died same day*
20 F	28	Aug 18	Aug 23	Thin, greenish, and serous	None; granular matter	Tolerably abundant; both large and small; also large simple cells without nuclei	None	A few scales	None	A few, apparently lithic acid	One of the worst cases. Died in a few hours
21 F	35	Sept 8	Sept 8	Thin and clear, with yellow flocculent deposit	Abundant, with hyaline basis	Very abundant of all sizes	Vegetable cells	None	None	None	A very severe case; never rallied out of the cold stage. Died September 11
			" 9	Rather thin, with thick yellow deposit	Ditto	Not many, and those small	None	None	None	None	
			" 10	Thick, dark, yellow, semi fluid, and pultaceous	Little and many granules	Several, very large and irregular, and of a deep yellow color	Vegetable cells	A few scales	None	None	

—*London Medical Gazette.*

Chemical Pathology of Diarrhœa.—OESTERLIN, in *Henlé and Pfeuffer's Zietschrift, Bd. VII. Heft* 3. contributes an important papers on the Chemistry of Diarrhœa, a disorder which is exceedingly prevalent in the Baltic provinces, especially in conjunction with ague and malaria disorders.

The older chemical schools attributed extraordinary appearances to the excrements, bile, and blood of the dysenteric, but valid researches have not yet been made; so that this disease, which offers most to the chemist, has perhaps been most neglected by him. And in pursuance of these pathological errors, therapeutic singularities have obtained.—Diarrhœa has been treated with mercurials, since the bile is supposed to act some mysterious part in the tragedy; or patients already purged ten and twenty times in the hour, have been treated with laxative, on account of an alleged dependence of tenesmus on accumulation of fœces. It was only a few years ago that Masselot, and Follet, for the first time analyzed the blood in this disease; and their analyses, grouping many cases together, will allow little stress to be laid on the results.

Many circumstances had for 15 years drawn the author's attention to the evacuations in these diseases, especially in the cases seen in the Baltic epidemic of the autumn of 1846. Their appearance, the blood they contain, their physical properties, and their enormous quantity in the twenty-four hours, all indicate them as an important element of the disease. So, likewise, the often rapid collapse, the rapid wasting (especially of the face), and the manner in which persons previously in robust health are completely prostrated, all these circumstances, which are unexplained by anatomical alterations in the intestinal canal, point to the statement, that the materials set free from the body greatly preponderate over those taken into it, and that this preponderance occurs with a rapidity and intensity differing only in degree from Asiatic cholera. But though the dependence of the two sets of facts be apparently obvious enough, yet he had never seen any experiments upon either the composition or quantity of the evacuations. After long delay, a favorable opportunity presented itself in the following cases:—

The three first were of diarrhœa; the last was the diarrhœa occurring in the latter stage of Bright's disease. They seem to have been severe, but not extraordinary cases, and the examinations were not made in the earliest and most acute stage. The first and last terminated fatally; the others completely recovered. The analyses were conducted with the assistance of Dr. C. Schmidt. The method of examination, in most instances, included the urine; but the small quantity of this, and, in all but the taste, its healthy character, precluded any error of consequence.

In four cases, on an average, the quantity of evacuation in the twenty-four hours amounted to 2433 cubic centimetres, or to 721 cubic inches English.

The average of nine examinations gave the daily loss of albumen 50½ grammes, or 782⅞ grains English. The albumen was (a) albumen of serum (b) epithelial structure; on an average of three comparisons, the latter amounted to one-sixth of the former variety.

On an average of eight examinations, the quantity of fixed salts thus removed in the twenty-four hours was 14½ grammes, or 224¼ grains English.

The author compares the large quantity of albumen thus obtained with two other cases; one the flux produced by calomel and jalap, in a case of chronic disease of the brain; the other, the (loose?) stools of a typhoid patient. In the diarrhœa, the albumen amounted, in the average of eight examinations to 24,75 parts in the thousand; in the two latter instances, to about 3½ parts per thousand, the two being nearly alike, 3.3 and 3.9. This is scarcely a seventh of the preceding quantity.

Comparing the composition of the stools with that of the

blood, from which they must be derived, the following points are noticeable;—

The quantity of albumen in the whole blood-mass may be estimated at 800 or 900 grammes—about 29½ oz. English. Thus in less than three weeks, such a daily loss as the estimate above would equal the whole quantity normally present. Or, daily, a seventeenth of the whole quantity is removed. Again, taking the quantity of fixed salts present in the blood as about one-tenth of the albumen, the daily loss may be estimated at 1-170th of the whole quantity in the blood.

The *absolute daily loss* of albumen fluctuated considerably; but the *per centage* of albumen present, or its number of parts in the thousand of evacuations, had a very constant and well-marked relation to the severity and date of the disorder; subsiding as it subsided, or aggravated on its relapse.

Some blood taken by cupping was examined in two instances. In both the quantity of water was increased, the quantity of salts was nearly normal, while the remaining constituents had decreased. The impoverished blood had been able to replace the water lost, while the organic constituents were still missing.

The author goes on to apply these chemical results, to explain the condition of the different organs and functions.—The small anæmic pulse, the sunken eye, the small quantity of urine, the condition of the secretions generally, are all referred to in turn. But our readers will have heard or read most of these before. We have, therefore, only to add, that he appears inclined to regard diarrhœa as essentially a chemical process, manifested by the tendency to thickening of the mucous membrane, and exudation from it. To this we can only say, that on like grounds we must call all secretion, both healthy and morbid a *chemical* process. This we must hesitate to do. Yet, until we can state why the healthy intestine secretes healthy intestinal mucus, we cannot tell why the diseased one should seperate its diseased product, however different in appearance and quality the latter may be.—*Med. Times*, May 19, 1849.

On the Analogy and differences between Tubercle and Scrofula.—M. A. Legrand concludes an elaborate and valuable series of papers, extending through several Nos. of the *Revue Médicale*, for last year, the fruit of many years' research, he informs us, with the following summary of the results, at which he has arrived:—

1. There undoubtedly exist analogies, which we may call symptomatic, between tubercle and scrofula; that is to say, one of these two morbid principles, the tubercular, may exhibit itself by symptoms which appear to belong to the other; but this is not the case with regard to the latter. 2. Tubercle possesses, so to speak, its morbid individuality, its molecular element—the tubercular globula—which is often met within the scrofulous manifestations of tubercle. 3. Scrofula is always deficient in the morbid molecular element, and its existence is only proved by the constancy of the effects which are attributed to it. 4. The chief or even the only seat of tubercle is in the internal organs, and the external manifestations of the morbid principle irradiate from the centre to the circumference. 5. Scrofula comports itself quite otherwise, and manifesting itself on the skin or periosteum, irradiates thence towards the internal organs, which, however, it never disorganizes in the same manner as tubercle. 6. Tubercle, in spite of the impoverishment of the blood it always induces, does not destroy, at least in the early periods, the inflammatory element, the fibrine, which well explains the occurrence of the phlegmasiæ, which so often complicate it, and which always hasten its disorganizing progress. 7. Scrofula likewise impoverishes the blood, but at the same time it seems to annihilate the inflammatory element. Thus inflammations rarely complicate it, and when such complication does exist, it often favors the cure of the disease. 8. All the changes observed in the blood and urine of tuberculous and scrofulous patients, are evidently consecutive; and they cannot be considered as the cause of these two diseases, whose principle is nevertheless very probably contained in the blood. 9. Finally, tubercle is never curable, or at least such cure constitutes a rare exception, while scrofula is almost always curable.—*Revue Médicale*, Nov. 1848.

On Polydipsia.—M. Vigla took the occasion of an example of this rare form of disease being in the Hôtel-Dieu to deliver a clinical lecture upon it. It occurred in the person of a shoemaker, æt. 40, who two months before admission, suffered from severe frontal neuralgia. Shortly before he came in, he was seized with so tormenting a thirst, that he was forced to drink six or seven quarts of water a day, and two or three by night. This state continued for three weeks, during which the neuralgia entirely left him; but a week prior to admission the thirst diminished and the neuralgia returned. Blisters to the head and purgatives relieved this; but the thirst now returned as intensely as ever. On the 2d of November, he was found to have passed from eight to ten pints of urine since the prior evening, which was of a very pale citron hue, inodorous, nearly neutral, and of a density (1002) but little above that of water, &c. The tongue was nearly normal, the gums pale, mouth dry, and spitting difficult, saliva slightly acid, and so sparing that he could not swallow two mouthfuls without drinking; appetite gone, having some desire for vegetable food, and a loathing for animal. No pain in the abdomen, and stools are normal. Skin dry, and very susceptible to cold. Some emaciation; little sleep; suspension of sexual desires; pulse 56, and regular.

There are three diseases in which excessive thirst and secretion of urine are prominent symptoms; polydipsia, diabetes mellitus, and diabetes insipidus. *Polydipsia* is distinguished from *diabetes mellitus* by there being no sugar in the urine, and mere congestion or augmentation of volume of the kidney, but no organic change. Although the odour of diabetic urine is slight, it is of a more animalized nature than that of polydipsia; and if the latter be left to itself, it passes into the putrefactive fermentation, while that of diabetes passes into the alcoholic, depositing a whitish substance, which is a true ferment. The difference of *density* sufficiently distinguishes the two urines; for while that of diabetes furnishes a specific gravity of from 1026 to 1044, that of polydipsia furnishes one of but from 1000 to 1004, or at the most 1008; the density in the one affection being greater, in the other less, than in any other disease, and forming the two extremes of the scale. The urine of diabetes polarizes light, which that of polydipsia does not. In diabetes, the appetite may be much increased, while in polydipsia it is diminished; meat and gelatinous aliment are taken and digested in the former, vegetables in the latter. Nutrition is much more seriously affected in diabetes than in polydipsia; the continual emaciation, in spite of enormous alimentation, observed in the one, not taking place in the other. The diabetic patient easily takes cold, each cold becoming more and more obstinate, and usually terminating in phthisis.—All those patients who do not die of a complication of the original disease, die tuberculous, a termination not observed in polydipsia. Arrived at such a period, the diabetes may seem cured; but in fact less sugar is secreted, because the patient now takes less food whence to elaborate it. Towards the end of the case the patient becomes œdematous, which he does not in polydipsia. Polydipsia does not easily make ravages in the constitution, the patient bearing it as well for twenty years as for six months, which is very far from being

the case with diabetes. In both affections, the complication of a febrile disease may temporarily suspend their course. In one case, seen by M. Vigla, the polydipsia was suspended during an intense reaction excited by blisters, and reappeared when this had subsided.

As to *diabetes insipidus*, M. Vigla is aware of no well-ascertained example of such a disease, which, without sugar in the urine, gives rise to emaciation and eventual phthisis.

The *causes* of polydipsia are unknown. It may occur at any age, in any climate, and in either sex. Generally, its access is sudden, and it becomes fully developed in a few days. M. Vigla regards both it and bulimia as *neuroses*, deranging the health no more, or even less, than other neuroses. It obstinately resists all treatment; the only remedies which are of any occasional avail being antispasmodics.—*Brit. and For. Med.-Chir. Rev.*, April 1849, from *Gazette des Hopitaux*, 1848, No 130.

SURGERY.

Pathology and Treatment of the Deafness attendant upon Old Age.—Mr. Joseph Toynbee, in a very important paper contributed to the *Monthly Journal of Med. Science* (Feb. 1849), contends that the conclusion to which most medical men have arrived, that senile deafness depends upon a gradual and natural decay of the powers of the organ of hearing, is not well founded. He states that "the results of his experience tend to show, that this decline of the power of hearing, in old age, is dependant upon the influences to which aged persons are frequently subjected; namely; the prolonged stay in warm and close rooms; the avoidance of the open air, the cessation from bodily exertion, the want of attention to diet, and to the healthy performance of the functions of the skin; and that it does not depend upon the decline of nervous power, or upon an atrophy of the tissues which compose the organ of hearing. On the contrary, an extensive field of *post-mortem* investigation has demonstrated, that the *most frequent* pathological condition found in cases of senile deafness, is a considerable increase in the substance of the mucous membrane lining the tympanic cavities; and that the evidences of atrophy of the tissues are very rare. The pathological condition *second* in frequency in these cases, is a thickening of the *membrana tympani;* and the *third* consists in the presence of bands of adhesions, which connect together various parts contained in the tympanic cavity and these contents to the walls of the tympanum. The examination, during life, of elderly patients suffering from deafness, quite agrees with the results of the pathological researches. Thus, while the external surface of the membrana tympani remains smooth and shining, its substance is seen to be whiter than natural; upon attempting a forcible expiration with closed nostrils, air is heard by the otoscope* to enter the tympanic cavity, but it produces an unnatural sound: the hearing is generally worse during an attack of cold, and in dull weather."

Mr. Toynbee relates five cases, with dissections, illustrative of these views.

MATERIA MEDICA AND CHEMISTRY.

Sulphate of Amorphous Quinine.—As a therapeutic agent, Mr. Bullock, of London, considers this preparation in every respect equal, and for some purposes superior, to the crystalline variety of quinine. It is now some years since Mr. B. first recommended it to the profession, during which period its value as a substitute for the ordinary sulphate has been most extensively tested in all those diseases in which quinine is employed. As a periodic in intermittent fever and neuralgia, it appears to be equally energetic with the crystalline preparation, and as a stomachic and general tonic, many bear testimony to its greater efficiency, from the ease with which it is borne by the stomach. The headache, and other unpleasant effects, which frequently result from the exhibition of quinine, are rarely occasioned by the amorphous salt.

The salts of amorphous quinine being delinquescent, the sulphate is sold in solution, five minims of which contain a grain of the salt. This is very convenient in prescribing. Mr. B. recommends those who desire to employ it in combination with a vegetable acid, to order the acetate which is prepared in the same manner as the sulphate. The following are the proportions of the different acids required for the preparation of the salts of amorphous quinine.

One grain of amorphous quinine requires

4 minims dilute sulphuric acid.
3 " hydrochloric acid.
5 " nitric acid.
3 " phosphoric acid.
7 acetic acid.
2 grains citric acid } Mix with the amorphous quinine,
2 " tartaric acid } then add a few drops of water.

Rub the amorphous quinine with the acid in a mortar until it is dissolved.

The price of the sulphate of amorphous quinine, which is less than one-half that of the crystalline variety, strongly recommends it to the physicians of hospitals, dispensaries, and other charitable establishments, as well as to country practitioners, who will find it a considerable economy.

[From extensive trials, we are satisfied that the solution of the sulphate of amorphous quinine, represents all the most important physiological and therapeutic properties of cinchona bark. We found it eminently useful in improving digestion, and in restoring the normal tone to the stomach of convalescents from cholera.—In diseases of debility generally, it is an excellent tonic. Equally active with the crystalline sulphate, it is certainly less apt to disorder the stomach in full doses.—*Monthly Retrospect*, April 1849.

On the Employment of Nitrate of Silver as a Vesicant. By M. Delvaux.—The general action of nitrate of silver on the tissues seems to be to separate the hydrogen. When this salt is brought in contact with an organic body, it becomes decomposed into nitric acid, oxygen, and metallic silver, in a molecular state. Silver is deposited, and this imparts to the tissue its coloration, whilst the oxygen of the oxide of silver and of the decomposed nitric acid takes up the hydrogen to form water.

When nitrate of silver is brought in contact with the skin, the effect produced varies according to the greater or smaller quantity of salt employed. If the quantity be small, it merely acts on the epidermic cells, which it disorganizes. Metallic silver is reduced to a molecular state, and combines with their elements; the epidermic tissue assumes a blackish brown coloration, owing to the metallic silver itself, and after a time the tissue is detached and drops. Where the action of the nitrate of silver is continued for a longer period of time, the true skin itself becomes affected, the effect produced varying according to whether the disorganization is merely on the surface, or more deeply seated. In the former case, an abundant serosity raises the altered epidermic surface, and produces *vesication*. In the latter, the true skin, being disorganized in its thickness, produces an eschar.

If now, we consider that the skin varies in thickness and sensibility in different parts of the body, and according to age, sex, &c., it will be evident that a certain tact is required to regulate the quantity of nitrate of silver necessary to disorganize the epidermic layers, and procure a vesicatory effect without disorganizing the true skin. The principles by which the employment of escharotics in general is guided will suffice to prevent the occurrence of any unexpected results.

Without proceeding to enumerate all the diseases in which vesication by means of nitrate of silver may produce beneficial therapeutic effects, we will adduce a few cases in refutation of

* An elastic tube, twenty inches in length, each extremity having fixed upon it a piece of ivory or ebony; one orifice is introduced into the ear of the surgeon, and the other into that of the patient, while the latter attempts to make a forcible expiration with closed mouth and nostrils.

the objections that might be advanced against this form of application.

1. M. Claes, a patient in the hospital of des Viellards, who was recovering from an attack of adynamic, pleuro-pneumonia with parotitis, complained, on the 3d of September 1848, of severe pain in the left sub-scapular region, and in the lateral portion of the neck, along the trapezius muscle. The pains increased on the least movement. Exposure to a current of air had given origin to this rheumatic affection. The skin was cauterized in the sub-scapular region with a stick of nitrate of silver, moistened with water at the moment of its application. A bulla appeared in the course of an hour and a-half; epidermis being removed, a slight degree of suppuration was established, and the pain entirely ceased, as if by magic, at the end of about ten hours.

The cauterized spot had been dressed immediately after cauterization with cold cream, and this was continued until the occurrence of cicatrization, which took place within the fourth day.

2. A man named Boufort, came to consult M. Uytterhoeven, at the same hospital. The old man had suffered since the preceding evening from acute stitch in the side. The pains extended along the seventh rib towards the back. As auscultation did not reveal anything abnormal in the thoracic organs, the spot to which the patient referred the pain was cauterized with nitrate of silver, previously moistened with water. The pain disappeared as the operation advanced. A vesicle was produced in the course of an hour. A compress with cerate was applied to the wound. On the following day the pleurodynia was perfectly cured without the treatment being further continued.

3. The same method was immediately employed in the case of Marie Demaitre, who had been attacked by pleurodynia in the left side of the thorax. The pain was so violent as to call forth loud cries from the patient. The cure was equally prompt and unexpected, and in the course of the day the pain entirely disappeared. The vesication was treated in the manner usually adopted in the case of ordinary vesicants.

It only remains to add a word or two on the mode of operation of this vesicant. In order to avoid all chance of irregularity, it is necessary to rub the whole surface on which vesication is to be induced, lightly but equally with the point of the stick moistened with a drop of water, and to continue long enough until a gray coloration is produced. This effect is generally obtained in the course of a minute and a-half. If a deeper action be required, owing to the thickness of the epidermis, or a more strongly marked therapeutic effect be sought, the operation must be repeated over the same surface, and with the same precautions.

M. V. Uytterhoeven has always found this vesicant answer his expectations most fully, both in private practice and in the wards of the hospital des Vieilards.—*Monthly Retrospect*, June 1849, from *Nouvelliste Médicale Belge*.

On the use of the Oxide of Silver in certain forms of Menorrhagia, By J. J. Thweatt, M. D., Petersburg, Va.

The preparations of silver have recently attracted considerable attention, especially in diseases of the mucous membrane, attended with undue secretion. I was led to try the powers of the oxide of silver in menorrhagia and irregular menstruation, from the high eulogy passed upon it by Dr. Lane; and the success which followed its use was so encouraging as to induce me to direct my attention particularly to its mode of action, and the forms of menorrhagia to which it is applicable.

My experience with this medicine has now been sufficient to induce me to repose great confidence in it when properly and judiciously applied. I do not pretend to claim for it the appellation of a specific, but I am persuaded that, "*cæteris paribus*," all that is claimed for mercury in syphilis, or quinine in intermittent fever, can be claimed for the oxide of silver in menorrhagia, in its different forms. It is eminently superior to the acetate of lead and other mineral and vegetable astringents usually employed in this disease.

The oxide of silver is best adapted to those forms of menorrhagia, which depend on an undue excitation of the uterine organs, unaccompanied with high inflammatory action. Cases often present themselves where profuse hemorrhage makes its appearance at the usual menstrual period, or immediately after it has passed; in these cases there is an extraordinary excitation of the nervous system. The oxide of silver here often acts like a charm: calms the perturbation of the nervous system, and arrests the hemorrhage by its astringent qualities. It should be given in large doses, and repeated at short intervals until some effect is apparent. Women after parturition are frequently troubled with a sanguineous discharge, distinct from the lochia, which is difficult to remove by the usual remedies. The oxide of silver is an infallible remedy for this pathological condition.

There is one form of menorrhagia often met with, which often baffles the skill and experience of the ablest practitioners to remove; and I know of no form of disease which tries more the patience of both patient and physician. A remedy, therefore, in which any reliance can be put, is certainly a desideratum. I refer to the too frequent occurence of the menses. The quantity of the discharge is sometime larger and sometimes smaller than it naturally should be; the intervals are short, and, in many instances, the patients are never entirely free from some discharge; exhaustion and debility are the usual accompaniments of this morbid condition; impoverishment of the blood followed by a cachectic condition of the general system; the nervous system is deeply involved; palpitations of the heart become a great annoyance. There is likewise a general depression of the moral faculties; the digestive organs are ultimately implicated, and there is dyspepsia in its multifarious forms,—gastralgia, pyrosis, &c. &c. Spinal irritation is of frequent occurrence; the patient complains during the short intervals (when there are any) of dull pains in the pelvic region, with the sensation of weight or a bearing down motion in the uterus.

The oxide of silver is the only remedy in which any confidence can be placed to remove these symptoms. I have, under these circumstances, employed in vain the various preparations of iron and lead, together with the mineral acids: they afforded only temporary relief; but in every case in which I prescribed the oxide of silver, its action has been satisfactory.

I am aware that it is the opinion of those medical gentlemen who have experimented with this medicine, that it is inferior to the preparations of iron in those cases where the hemorrhagic tendency depends upon a general anemic condition of the system. This is the opinion of Dr. Lane; it is with all due deference to such high authority, that I express a contrary opinion. In this form of menorrhagia the true indication to be met, is the arrest of the abnormal secretion; this drainage of the general system. If we can accomplish this (under all circumstances) desirable object, we will have paved the way for the use of ferruginous preparations, and the carrying out beneficially the proper hygienic regulations for the restoration of the health of our patient.

My experience with the oxide of silver induces me to believe that its main action is upon the capillary circulation, and particularly upon the uterine capillary system; that its powers are specifically directed to the uterine system. Its operation upon the nervous system is that of a mild and unirritating tonic.

It is almost superfluous to state that this medicine is entirely nugatory, if not prejudicial, in those cases of menorrhagia which depend upon organic lesions. It never should be prescribed in cases of high inflammatory action; until after the subjugation of the inflammatory symptoms by antiphlogistic means, when it may be administered with great benefit.

I am in the habit of prescribing this medicine in larger doses than usual. The only pathological effects I have witnessed from its use, in two grain doses, two or three times a day, were uneasiness in the lower bowels, sometimes attended with slight tormina and tenesmus. These symptoms were easily removed by anodyne enema. They often, how-

ever, require no attention on the part of the physician. The usual dose, when intended to be continued for any length of time, is a half grain to one grain, twice or three times a day, according to circumstances; it should always be combined with a small quantity of opium or morphia. The oxide of silver blackens the stools.—*Journal of the Medical Sciences.*

The Mechanical Leech of MM. Alexandre & Co., of Paris.—This apparatus consists essentially of two parts—an instrument for puncturing the skin, and another for promoting the flow of blood by removing atmospheric pressure from the punctured part. The puncture is effected by a lancet, the blade of which has the form of the cutting apparatus of the leech. This lancet is fixed in the mouth of a tube, and projects about the eighth of an inch beyond the edge of the tube. It may be elevated by a small lever, so that its point shall be within the tube, in which position it is secured by a catch. Attached to the opposite end of the tube, by a piece of vulcanized India-rubber, which acts as a spring, is a piston, which is pressed down by a rod, and, on removing the pressure, is drawn back by the India-rubber spring.—The piston being pressed down, the open end of the tube in which the lancet is fixed, is placed over the part to be punctured: the pressure is now removed, when the piston is drawn back by the spring, and exhausting the air within the tube, the skin is forced up into the mouth of the tube. On loosening the lever, by which the lancet has been elevated, the latter is drawn down by a spring, also of vulcanized India-rubber, so as to effect the puncture.—The cutting instrument is now removed, and a glass tube with a piston, similar to that already described, is placed over the puncture, the air within being exhausted so that the tube adheres to the part, and the blood flows freely into it. Half-a-dozen or a dozen tubes, each of which would draw as much blood as a large leech, might be thus attached in two or three minutes. The apparatus, consisting of a cutting instrument and six or twelve suction tubes, together with sundry implements for cleaning the lancet and tubes after use, are contained in a small case. It is very neatly got up, and we understand from those who have used it, is very efficient. The idea, however, is not new: so long ago as the year 1813, the silver medal was awarded at the Society of Arts to Mr. J. Whitford, of St. Bartholomew's Hospital, for the invention of a somewhat similar apparatus for the same purpose. In Mr. Whitford's apparatus the exhaustion was effected by a syringe, which was found to be inconvenient. The use of vulcanized India-rubber springs, attached to the pistons, by which efficient suction tubes are economically formed, is a great improvement in MM. Alexandre's apparatus.—*Lon. Med. Journal*, March, from *Pharm Journal*, February 1849.

Extractum Cotyledonis Umbilici in Epilepsy.—Dr. Joseph Bullar, of Southampton, recommends *(Provincial Med. and Surg. Journ.*, May 23, 1849*)* the use of the extractum cotyledonis umbilici, for the cure of epilepsy. "Several years ago," he states, "the expressed juice of the cotyledon umbilicus, or navelwort, was recommended to a lady who had compound epilepsy, which had not yielded to medical treatment, and under its use the disease was entirely removed and has not returned. The patient was under the care of my friend Mr. Salter, of Poole, who watched the case with much interest, and mentioned the fact to me. Subsequently, my brother, Dr. W. Bullar, recommended the juice for a child in this neighborhood, where the plant grew, and the epilepsy was cured. Rather more than a year ago I requested Mr. Randall, chemist, of Southampton, to prepare an extract of the expressed juice, in order to give the remedy a trial, and from the experience I have since had, I have no doubt in my own mind of the anti-epileptic power of the medicine, although sufficient time has not yet passed to bring forward cases as perfect cures.

"From the experience Dr. B. has had in a considerable number of cases (several of which were of a very hopeless kind), long perseverance, he says, is necessary; and if the number and violence of the fits are lessened, there are good grounds for hope and further perseverance. In all the cases, there has been a marked diminution in the violence and frequency of the attacks; and as, in two cases (one of which I heard to-day), it has first increased the violence of the fit, and as, in others, there have been transient symptoms of increased nervousness and headache, requiring a short suspension, I am in hopes that it may prove a true anti-epileptic. It is certainly in many cases nervo-tonic, as the improved nervous tone is shown by quicker sleep, fewer dreams, better spirits, more ability to take exercise, and a consciousness of general improvement. It has no other action on the body that I am aware of. It certainly produces no action on the bowels, for when there has been costiveness (which is so commonly the case in epileptics) the usual medicines to keep up a natural action have been required. I have used it with the precautions quinine requires in ague, attending to the general health, and endeavoring to remove and rectify faulty secretions, or any obvious local disorder. Some of the patients to whom I have given it have been in fair bodily health; in others the nervous system has been weak and excitable; in others weak and exhausted. In children, it is advisable to begin with a few brisk purgatives, in case the epilepsy may depend on worms; and in young men, the state of the urethra should be examined; as that state of debility kept up by seminal discharges, consequent on an irritable urethra, which so disposes the system to epilepsy, counteracts the beneficial influence of the medicine. If there is habitual costiveness, a simple dinner pill [as the compound rhubarb] is necessary. When, with an excitable nervous system, there is a foul tongue, yellowish eye, turbid, acid urine, and offensive motions, the state of the blood on which this depends must be corrected by a course of aperients, which excite the gastro-intestinal mucous membrane, liver, and kidneys to throw off the impurities, without weakening the general powers [aided by diet and hygienic means]; for, unless the fluids are thus filtered and purified, no specific remedy can with any reason be expected to have a fair chance.

"The juice is prepared by bruising the leaves and left-stalks in a mortar, and expressing the juice from the bruised mass through a cloth. One tea-spoonful, twice a day, of the juice. I have prescribed five grains of the extract [which is made by evaporating this juice], twice a day, and occasionally three times. It may happen, that the disease may be much shortened by increasing the dose. This is matter for further trial."

Physiological Action of Nitrate of Potassa.—By F. Loffler.—The following account of the action of nitre, is derived from a series of experiments made by five students on their own persons, while in health. The salt was taken in solution, with the addition of a little mucilage, in quantities increasing gradually from one to five drachms daily. The proportion for each day was divided into five separate doses. Each student took in this manner, during the course of one experiment, from three to five ounces.

After from eight to twelve days' use of the medicine, the blood drawn from the veins presented the following character: 1. In color and density it resembled cherry juice. 2. The number and size of the colorless blood corpuscles were increased. 3. The blood globules were paler in color. 4. The blood coagulated very quickly. (The average time required for the coagulation of the blood taken from the five subjects of experiment, previous to the employment of the nitre, was then minutes—after its use, only five minutes and three quarters.) 5. Increased proportion of water, and corresponding diminution of the solid constituents of the blood. 6. Diminution of its fat. 7. Increased proportion of ash in serum. 8. Diminished firmness and elasticity of the crassamentum, the solid constituents of which were less in quantity than in normal blood.

The symptoms observed from the use of the nitre were general weakness, and indisposition to exertion of body or mind, increasing in intensity with the continued employment of the drug; low spirits; fatigue from the slightest exertion; the muscles and joints felt as if they had been bruised, and the knees were especially weak; constant disposition to sleep, slow and weak pulse. This last symptom began to show itself on the second or third day, and gradually became more marked; so that towards the end of the experiment the frequency of the pulse was several times reduced to twenty beats in the minute. The pulse did not

recover its normal strength and frequency for seven or eight days after the discontinuance of the medicine. Towards the end of the experiment, the face became distinctly paler and thinner. The appetite continued good, and the digestion was not disordered. The action of the bowels was for the most part healthy, at other times the drug occasioned some pain of the belly, followed by purging. On account of the great heat which prevailed while the experiments were made, no certain deductions can be drawn in reference to its action upon the kidneys. The quantity of urine, on several occasions, exceeded by as much again the amount of fluid drank, and generally there was more or less diuresis.

The author promises to repeat his experiments when the temperature is more suitable, to ascertain precisely the changes induced in the composition and quantity of the urine.—*Schmidt's Jahrb.*, 1848.

[In the *Union Med.*, of March 3, M. Vanoye reports a case, where one and a-half ounces of the nitrate of potassa were given, by mistake, to a young female, ill of typhus fever. For an hour she experienced considerable uneasiness and inclination to vomit. Her face became remarkably pale, contrasting strongly with its previous febrile flush. Repeated vomiting, alternated with fainting, soon succeeded. The vomited matter contained bile, and a large quantity of blood. She complained of acute pains in the epigastrium. From being strong and full, the pulse was now small and irregular, and fears were entertained for the patient's life. She recovered. The treatment consisted in cold emollient drinks, a little laudanum, and sinapisms. She had no desire to urinate until about four hours after taking the nitre, when she passed some clear, high-colored urine, which gave no deposit on cooling. Afterwards the quantity of urine was not greater than the normal. It is worthy of remark that, on the day following, the patient was convalescent from the typhus fever. This fact is the more surprising as, of three members of the same family who had typhus at the same time, one died, and the other two were long and seriously ill.

M. Vanoye's case is peculiar in the entire absence of diuresis, which can be accounted for only by supposing that the salt was rejected by vomiting. The action being purely local on the gastro-intestinal mucous membrane, absorption was prevented, and hence the secondary effects could not be manifested.]—*Monthly Retrospect*, April 1849.

Experiments on Senna and Argol Leaves.—According to Heberlein, spirit of wine extracts from senna leaves only chlorophylla and extractive matter, the *cathartine* of Lassaigne and Feneulle, which does not, however, possess in the slightest degree the purgative effect ascribed to it by these gentlemen; for after repeated experiments with smaller quantities, the alcoholic extract of one and a-half ounces of senna leaves were taken without any effect. The uselessness of treating senna leaves with spirit of wine, and the inefficacy of tinctura sennæ are therefore obvious. The aqueous extract of four drachms of senna leaves, which had first been exhausted by spirit of wine, effected evacuations with griping: so that the griping principle had not been removed by the spirit. The leaves used for these experiments were those of Tripoli senna, which are quite free from the leaves of *Cynanchum Arghuel*. The latter, which are found among the Alexandrian senna, are in bad favor among physicians, but without just grounds, for experiments made with the picked leaves of *Cynanchum Arghuel* showed them to be harmless. An infusion of two and a-half drachms produced no effect or inconvenience.—*Monthly Retrospect*, April 1849, from *Pharmaceutisches Central-Blatt*, No. 54.

On Sugar as an Antiphrodisiac—By M. Provencal.—Camphor has hitherto by reason of its prompt effects, been considered as the best antiphrodisiac, and as the best antidote to cantharides. But sugar is a far more powerful and useful remedy, diminishing the venereal ardor, and repairing, in some degree as an aliment, the melancholy effects of over-indulgence. The dose is a pound or more, daily, in a quart of water, wine, or milk, according to the nature of the case. In the case of general irritability, as observed in members of the religious fraternity, and in priapism, it is best given in cold water. When excitement of the genital organs is complicated with irritation of the chest, milk is the best vehicle.—*Brit. and For. Med. Chir. Rev.* from *Rev. Méd.-Chir.*, tom v.

MISCELLANEOUS.

QUERIES IN MEDICAL ETHICS.

By W. Fraser, Esq. M. R. C. S. E.

(Read before the Medico-Chirurgical Society of Aberdeen, 5th April, 1849.)

[Continued from page 156.]

Query 23.—In cases where a surgical operation is indicated, which the medical man in attendance does not feel himself warranted or inclined to undertake, what is the proper course to adopt, and what the proper etiquette to be observed between or among the medical men concerned in the treatment of the case?

Ans.—As the great majority of medical practitioners very properly eschew the performance of the more serious and capital operations in surgery, when the necessity for such an operation is clear and undoubted, or when its expediency has been agreed upon after sufficient consultation, the medical attendant should, with the acquiescence of the patient, select the person in whose judgment, experience, dexterity, and other requisite qualifications, he has most confidence. Supposing the person so selected should coincide with him as to the propriety of an operation, the mode and circumstances of its performance, as well as the preparative and the immediate after-treatment, should be mainly left to him. The surgeon, however, should not assume any charge of the case beyond what his responsibility as the operator *pro tempore* requires of him, and should no more lay himself out for continued employment or general consultation by the patient than would a dentist or cupper whose services might happen to be required in similar circumstances.

Query 24.—What is the proper frame of mind for the practitioner when engaged in the active duties of his profession?

Ans.—To lay down a specific rule on this head were almost impossible, so much will depend on the natural temperament and character of the individual, and on the varying circumstances and society in which he may be placed. But one thing is plain—that whatever these may be, kindness, firmness, self-possession, circumspection, fidelity, candor, and intelligence, ought, if possible, to form prominent features in his demeanor. The chief qualities necessary in a medical man are most accurately and beautifully symbolized in the ancient myth regarding the demi-god Esculapius, in which he is represented as accompanied by three companions—the dog, the dove, and the serpent. These seemingly incongruous associates may be supposed to indicate unshaken fidelity and devotion to the interests of his patients, and gentleness and harmlessness in his dealings with them, combined with wisdom and caution in the treatment of their maladies. But in his medical attendance generally—and more particularly in cases of difficulty and danger—every practitioner possessed of a well-constituted mind will frequently raise his soul to the great disposer of events—the ever-flowing fountain, as well as the great terminal ocean of life and health—the only source of all true wisdom and consolation. An acquired habit of this kind (and every practice of which the tendency is undoubtedly good, ought

to be fostered and encouraged till it acquire the force of a habit) will be attended with various beneficial results, even irrespectively of the avowed object of such an act of devotion. The mind will in a moment, even in the midst of the bustle and excitement of every-day life, be subdued into that calm, observant, and dispassionate state, which is so valuable and requisite amid the distractions of a sick room. The christian virtues, many of which, as faith, hope, charity, and resignation, are highly sanative in their operation, will be called into exercise in the first place in the mind of the practitioner, and then through the force of sympathy be kindled in the breast of the patient, while the opposite and more selfish feelings of ostentation or vanity, avarice, rivalry, irritability, rashness, &c., which often do irreparable mischief in the circumstances referred to, will be kept in subjection. In a mind previously disciplined, a short space of time—even a minute or two, as the practitioner is entering the house of his patient—is quite sufficient to produce the effect desired. And even when in the act of investigating disease at the bedside of the patient, I believe what might still be called a devotional frame of mind to be the best that can be assumed by the practitioner, though it should certainly not be exhibited in an observable manner, and much less in the ostentatious way followed by Doctor Daniel Rutherford, a relative of Sir Walter Scott's, who used, when prescribing for his patients, to offer up at the same time a prayer for the accompanying blessing of heaven.* Looking upon the human body as a temple (with which it is often compared in Scripture †), most wonderfully and fearfully made by the great architect of the universe, or as a machine whose exquisite mechanism and functions he should ever strive to be familiar with, and to keep distinctly before his mind's eye—viewing it, moreover, as united with the godlike faculties of soul and mind, and animated and kept in action by the recondite principle of life—the medical attendant should regard himself as the high priest of this latter mysterious power, whose indications he should carefully and reverentially watch, whose responses to the appeals made to it by the resources of his art, he should sedulously collect and decipher, and in whose service he should at all times consider it the highest honor and privilege to be employed. Such a state of mind, of course, is not to supersede, but rather to direct and regulate, the use of medical knowledge specially so called; and the practitioner should have his mind constantly replenished from the best sources with all manner of professional lore, both theoretical and practical. But he who is impressed and actuated in the manner described runs far less risk of rashly invading and injuring the sanctuary of life, or of improperly interfering with the natural and recuperative powers of the human constitution, than he who is actuated merely by scientific zeal. In the practice of medicine, science ought to be regarded in all cases as a servant or minister to a higher power, rather than as the embodiment of that power itself. I believe there is a much larger amount of evil inflicted on society than we are willing to admit, under the cloak of science, assumed, as it may be, either in simple sincerity, or from politic and unworthy motives. Science alone, particularly when accompanied by the inexperience of youth, and unbridled by the higher principles of religion and morality, is as powerful for evil as for good, and tends, moreover, to make its professors presumptuous, pedantic, and arrogant.

The medical man should not be carried away by every wind of doctrine that may pass across the surface of society or of the profession. In his mind there should be a silent ever-flowing under current of common sense, the combined result of good feeling, accurate diagnostic observation, accumulating experience, and reflection. This, though perhaps little calculated to elicit eclat, or even to excite general appreciation, should nevertheless be sufficient to bear along with it those more superficial currents or eddies of speculation and opinion, in which, to a greater or less extent, he will necessarily participate which are produced by the popular prejudices that happen to prevail either generally or locally, as well as by those periodical tides of theory, indicated by the various schools,—*quasi* floodmarks,—they give rise to, which succeed each other in the profession itself, with almost the certainty and regularity of a fixed law.

Query 25.—What allowance is to be made for mistakes committed in the course of practice; and how should these be regarded by the practitioner, both when occurring in his own and in his brethren's practice?

Ans.—As it is undeniable that in so difficult and uncertain an art as that of medicine, mistakes and errors, both of omission and commission, must occur in the practice even of the most intelligent and careful men, it is the duty of the medical man, at all times, to review his own conduct in the most dispassionate and self-searching manner. If in the secret and searching court of his own conscience, he should find himself compelled to return a verdict of such culpable ignorance or imprudence, or neglect, as may have led to injurious or even fatal effects, he should by no means try by sophistry to turn aside or efface from his mind the painful feelings which naturally follow as a punishment. These, in fact, both by the impression they make at the time, and by their seasonable recurrence as beacons (umbræ de cymbâ Charontis) in his after practice, will form a most valuable part of his experience, and impart a tone of decision and earnestness to his management of cases, which can never animate either the mere scientific enthusiast in medicine on the one hand, or the mercenary empiric on the other. In proportion as he is sensible of his own shortcomings and mistakes (though that will generally be in the inverse ratio of the number of them), will be the practitioner's indulgence towards those of others. "If," says Dr. Lee, an American professor, "there be a sight calculated to excite pity mingled with disgust, it is to see medical men judging of each other with harshness and severity,—thinking that by depressing others they do so much to elevat, themselves." * Such conduct, though it may answer its dishonorable purpose for a time, never fails in the end to recoil on the head of the guilty party. As in every other instance where an individual seeks to advance his own interest by inflicting treasonable, ungrateful, and all the more aggravated, if secret, wounds on an honorable profession to which he belongs, through the persons of his brother members, the fate of a traitor is, to a greater or less extent sure to overtake him: that is, degradation from his status in the profession, the loss of his right hand of usefulness and power, and confiscation of whatever portion he may have acquired of the general field of practice. In this, as in many of the other cases supposed in these queries, the true answer, that which embodies the practical wisdom of the subject, may be given in the words of the great Christian maxim commonly called the golden rule. The same universal rule is thus expressed in an inverted form by Shakspeare:—

> "This above all—To thine own self be true,
> And it must follow, as the night the day,
> Thou canst not then be false to any man."

Query 26.—What are the principles that should guide the medical man in his attendance on cases of a mortal character, and in his intercourse with the family and friends of the patient on these occasions?

Ans.—When called to a case which you decidedly per-

* Lockhart's Life of Scott, p. 30.
† Ps. 139, 14.

* Lancet for July 10, 1847.

ceive to be of a quickly fatal tendency, your duty is at once to apprise the friends, or at least such of them as prudence may point out, of your opinion, and likewise the patient himself, more especially if he appeal to you, unless peculiar circumstances at the time forbid it. After having discharged this most disagreeable duty in the most judicious manner that you can, and given the patient or his relatives an opportunity of calling in further advice, if they should think proper, of procuring the aid of a clergyman, and of making whatever other arrangements may be necessary in the circumstances, you should, with the utmost promptitude, and with as hope-inspiring and sympathising a manner as possible, set about taking advantage of whatever possibility of recovery nature may hold forth. The dictum of Samuel Johnson on this point requires some qualification. He says—"I deny the lawfulness of telling a lie to a sick man for fear of alarming him. You have no business with consequences: you are to tell the truth. Besides, you are not sure what effect your telling him that he is in danger may have. It may bring his distemper to a crisis, and that may cure him. Of all lying I have the greatest abhorrence of this, because I believe it has been frequently practised on myself."* A little medical experience would have induced the stern moralist to have modified his aphorism at least to the extent of allowing the medical man a discretionary power of withholding the truth, or part of it, when the character of his patient or other circumstances warranted him. Medical men are often very unfairly blamed, in cases of a hopeless character, for not at once telling their patients that they cannot recover. In cases of such an acute or unmistakeably fatal character as must in all probability terminate the patient's life in a few days or even hours, and where the shock the information would produce on the patient's feelings would not be likely to turn the balance of chance against him, it is decidedly proper that the friends or the clergyman should let him know to prepare for the worst. But in chronic cases much may be said in favor of a different course. Were the medical attendant, who is looked upon by the patient as the angel of life and health, to set the seal of *his* testimony to the poor invalid's death-warrant, his days would, in many instances, be shortened by weeks or even months. In many cases the shock would be so great that he would refuse, or rather be unable, to take food, and would give himself up to the horror of despair; so that, instead of sinking calmly into death, as nature provides, he would have to endure a fearful struggle, equally harrowing to himself and to the feelings of his friends, with the last enemy, whose approach had been so injudiciously pointed out to him. The medical man must frequently have his feelings severely tried by witnessing the distress brought upon those who are deprived or threatened to be deprived of individuals with whom their dearest affections are bound up, or upon whom their subsistence or prospects in life depend; and there is a danger, on these occasions, of his giving way to his feelings of sympathy to such an extent as to unnerve him for the important and responsible duties involved in his having the charge of the case. The following extracts from Pettigrew's "Life of Dr. Lettsom," will, I think, exhibit the true philosophy that should guide the practitioner on such occasions. The amiable Dr. Cumming, in writting to his friend Lettsom, says—"Have you not sometimes felt the humid clay-cold grasp of a respected friend's hand? Have you not seen the lack-lustre eye, the wan, perhaps the distorted features, and the convulsive pangs, of an expiring husband or father,—his bed encircled by an affectionate wife and a group of weeping children, whose *comfort* in this world—nay, perhaps, whose *subsistence*—depended upon the life of their parent? The feelings that are on such occasions excited, rend the very heart-strings, and make us deplore the *weakness*—the *impuissance*—of our art. I have been on the point of abjuring the practice of physic, have wished to inhabit a den in the desert, or have lamented that I had not been bred to the trade of a cobbler." Dr. Lettsom, who to an equally benevolent heart joined the most masculine good sense and practical wisdom, takes quite another view of the subject, and shows how the honey of comfort may be extracted from the bitter cup of affliction, and the unavailing physician of the body may become the angel of hope and consolation to the mind of the mourners. "I did not expect," he says, in reply, "I should ever have occasion to differ in sentiment from Dr. Cumming; but with respect to all those dreadful pictures he has so painfully exhibited of the *impuissance* of our art, I feel—I mean I have experienced—very different impressions. A physician is always supposed to have formed a judicious prognostic,—to have foreseen the 'convulsive pangs of an expiring husband and father,' and all the subsequent catalogue of distresses; but here, my friend, it is that when in the physician the friend, and the divine are combined, his affection, his good sense, and his sympathy, pour into the afflicted the oil of comfort. He soothes the pangs of woe; he mitigates the distresses: he finds out something in the wise dispensations of Providence that he carries home to the bosom of affliction. Here it is that he is truly a guardian angel: his assiduity makes him appear as a sufferer with the family: they view him as part of the family: sympathy unites him to them; he acquires new affections; he mourns with them, and his philosophy points out new sources of consolation: he is beloved; he is become the father of the family; he is everything that Heaven in kindness deputes to soften, to dissipate misery."* "I think," he says, on another occasion, "that a humane physician, who evinces by his conduct a tender interest in the recovery of his patient, never loses reputation by an event which no human means could prevent: on the countrary, oftentimes nearer attachments are acquired; for the sympathy of the physician makes him appear almost as one of the family, and mutual anxiety begets mutual endearment. This I have felt and seen daily; and sometimes the pleasures of rational melancholy, if I may so term it, are the most permanent and the most consolatory to a feeling heart."*

Query 27.—What amount of confidence is it prudent or proper in the medical man to bestow on his patients with respect to the nature and treatment of their complaints?

Ans.—This will depend upon a variety of circumstances,—such as the patient's own character of mind, his desire for, and his ability to appreciate information on the subject of his disease, as well as upon the psychical effect that such information is, in the circumstances, likely to produce. But in general, and where the practitioner is what he ought to be, the best guarantee for the successful, and, both as regards practitioner and patient, satisfactory treatment of a case, is implicit trust in his integrity and skill on the part of the patient, though such confidence, of course, is not to be expected in every instance.†

* Boswell's Life of Johnson, p, 576.

* Vol. i. p. 27.

* Vol. ii. p. 56.

† I do not know if it comport with the experience of others but I have generally observed that *cæteris paribus*, Roman Catholics and Episcopalians prove more manageable and confiding *as patients*, and consequently more curable, than Presbyterians and the multifarious body of nonconformists. It would, however, be no fair argument, supposing the correctness of this observation to be admitted, to infer that the value of different systems of religion as regards the salvation of the soul, is to be measured by the influence they appear to have upon that of the body; although there can be no doubt that the circumstances in question might

1. A general opinion as to the probable progress and termination of a case is usually expected from the practitioner in attendance; and, when he has had sufficient opportunity of forming one, and the nature of the diagnosis is such that anything like a distinct and certain prognosis of the disease can be formed, the patient or his friends are entitled to be made acquainted with it by the medical attendant. Knowing, however, that this part of his conduct of a case is generally and justly looked upon as the chief test of his ability to treat it, he should use the utmost caution and discrimination in forming his prognosis, and, if necessary, communicate it in as guarded a manner as he may think expedient.

2. As a general rule it is advisable to let the patients remain in ignorance of the composition of the medicines they are taking. Their prejudices and, by consequence, their equanimity, will thus have far less chance of being ruffled, and the practitioner's hands will not run the risk of being tied up, as respects his future prescriptions, by his patient telling him that such a thing does not agree with him, and begging him not to give it him again. Moreover, upon the well-known principle (here less objectionably applied than in theology), of ignorance being the mother of devotion or faith, the medicine will, in all probability, be held in higher estimation, and consequently be more efficient for its intended purpose. The young practitioner labors under a disadvantage in reference to this subject, compared to the old, as many patients consider that they have a right to know the composition of what they are receiving at *his* hands. The very request, however, argues a want of confidence, which will only be encouraged by compliance; so that in general (being guided by his own judgment as to the cases that should be made exceptions to the rule) he should be firm in his refusal to tell what he is giving: saying, for example, if urged on the subject, "It is something that will do you good; take it, and if you are anxious afterwards, I can tell you what it is."

3. In certain complaints, more particularly those of a nervous and hypochondriacal character, caution should be observed with respect to what exposition is given to the patient of his disease and its treatment. Under the subject of Epilepsy, in his Dictionary of Practical Medicine, Dr. Copland makes the following excellent remarks on the subject, the force and propriety of which must strike every practitioner of the most ordinary experience. After having analysed the case, and carefully disentangled the essential from the adventitious and accidental features of it and so referred it to the class to which it belongs, he says—"The physician should calmly and decidedly direct the means of cure with reference to the disposition, the feelings, the weaknesses, and the irresolution of his patient, and in a manner calculated to gain his confidence and inspire hope. In this, as well as in all nervous diseases, the communications of the physician should be brief, clear, and forcible, without descending to any explanation whatever, either as to the cause or intimate nature of the disease, and the operation of the remedies he recommends, or as to his reasons for adopting them in preference to others; for these are matters respecting which no one but a well-educated medical man can think aright, or should even attempt to think. All endeavors to explain abstract matters connected with disease, and the means of removing it, to unprofessional persons, however well informed they may be, is to place ourselves at the mercy of the pragmatical objector, or self-sufficient volunteer in the professed cause of humanity. That ignorant empirics are sometimes apparently more successful in the cure of nervous diseases than scientific practitioners, chiefly arises from the circumstance of the former being incapable of stating their views, or assigning reasons for their procedures; whilst the latter, as justly remarked by Dr. Cheyne, are generally very much too ready, as respects both their own reputation and the confidence of their patients, to explain every thing. The empiric is fully convinced of the justice of the apothegm—"*Omne ignotum pro magnifico*"—and acts conformably with it; the man of science is candid, and ready to impart to others the views he entertains. The silence of the one, although generally the cloak of ignorance, imposes more on the public than the open deductions of the other, however confirmed by science and enlightened experience."*

be accounted for by the different habitudes of mind imposed upon patients by the peculiar genius of the religion to which they belong. Scarcely more essential, in fact, to the soul's salvation, in the Christian dispensation, is religious faith, than is the other variety of this great virtue now referred to, towards recovery from many species of disease. But it is equally true of medicine as of religion, that the more genial and faith-inspiring a nature it is of, so much the more powerful will it be for safety or destruction, according to the true value or worthlessness for the end proposed, of the object towards which the faith is directed.

Advice for the Ailing.—1. Never send for a medical man until you have tried every recipe in Buchan, or, under the plea of economy, subjected yourself to be nearly drugged to death by some neighboring druggist. 2. Never convenience your medical attendant by sending for him early in the morning; but always send your message late on in the day, especially after he has been three or four times past your door. He will then have to come solely on your account. 3. Always, after taking the first dose of medicine, send for your medical man to come again immediately, to inform him that you are no better, and that the medicine has done you no good. 4. Never, in the night time, send your medical man word what is the nature of your complaint; lest he, instead of turning out of bed to visit you should only send you some medicine. 5. Always take, at the same time with the medicine of your medical attendant, some quack medicines, or other old woman's remedies; and, if you recover, of course give the said quack medicines the praise. 6. Always, in a dangerous case, when having got a change for the better, call in the aid of a physician, lest your old medical attendant should receive the credit of curing you. 7. Never recommend or speak flatteringly of the services of your medical attendant, lest, by so doing, you increase his practice, and thereby run the risk of his visiting you less frequently. 8. Never think your medical man has any other patient to see than yourself; always keep him waiting a long time; and detain him, at least half an hour, to listen to the recital of symptoms which are of no importance, and which he has heard some fifty times before. 9. Always, in case of accident, send for five or six medical men to come in immediately; and let each, on his arrival, be informed that you have been taken to the infirmary. 10. Never pay your medical man's bill until you again require his services; and then think him amply repaid, with great profit, if you return him his own bottles.—*Medical Times.*

Medical Fees in Sardinia.—The fees of physicians and surgeons were fixed by a tariff on the 28th November, 1841. The price of a visit is 9d. increasing, according to the time of night, distance, &c, to about 8s. In surgery, the fees vary, according to the degree of the surgeon, as well as the time, distance, and operation, from 6d. to 8s.; and in the Bassa Chirurgia degree (the phlebotomists and dentists), the extent of whose operations is defined by law, petty distinctions are actually made between bleeding the arm, hand, or foot, the prices being 2½d. 3d. and 4½d. respectively; and it also costs 2½d. to have a tooth extracted, and 4½d. to have a root or fang of it removed, according to the imperial laws of the King of Sardinia.—*Tyndall's Sardinia.*

Fire Engines Superseded.—We observe that a book is advertised under the title of "Homœopathy in Acute Diseases." If homœopathic globules will cure inflammation, perhaps an infinitesimal drop of water will put out a fire.—*Punch.*

* Vol. i p. 800.

British American Journal.

MONTREAL, NOVEMBER 1, 1849.

BEAUPORT LUNATIC ASYLUM.

While on a visit lately to Quebec, we had the pleasure, in company with Dr. Douglas, of visiting the Beauport Lunatic Asylum. It is under the professional charge of Drs. Douglas, Morrin, and Fremont, three of the most eminent of the Faculty of Quebec, and while our desire has ever been to award no credit where none was due, a sense of duty compels us to become a willing tribute-bearer to the activity, zeal, and careful discharge of professional duty on the part of these gentlemen. We found the building, in which the insane patients are at present confined, as well adapted to the purpose as its inconvenient structure permitted. It must be recollected that it was originally built to be used as stabling, and at the time of the transfer of the insane, was the only and most suitable place to be had in the environs of Quebec for their accommodation. By a considerable outlay of capital, it was, *pro tempore*, adapted for their reception. Cleanliness pervaded the whole establishment, and ventilation appears to have been properly attended to. At present there are about 120 patients, male and female, but we found them, a result of limited accommodation unclassified.

By the energy of the three medical gentlemen alluded to, property has been purchased about a mile nearer to the city, and a building is now all but completed, which will accommodate 300 patients. Having inspected this new establishment, we find it admirably adapted to its intended application. Situated about one hundred yards from the Beauport road, with its front towards it, it presents the appearance of an enormous block of building, but an examination of the plan discloses it, as forming three sides of a quadrangle, projecting backward about 150 feet, with a frontage of about 200 feet. The depth of the building from the outside walls is about 40 feet. It comprises two stories, and it is intended to have one wing occupied by the male patients and the other by the female patients; separated in front by the main building, in which the apartments of the principal officers are intended to be. Ample accommodation is afforded for private patients, whom it was almost impossible to receive in the old building. The Asylum is to be heated by hot air flues, opening into the various wards and rooms; and is to be lit by gas, which it is in contemplation to prepare in a small building behind the main one, which is intended also to serve as work house, &c. There is an abundant supply of water, a great desideratum in the old place, and to procure which in the quantity required was attended with an annual expense of about £100. The elevation of the building is exceedingly neat; presenting no pretensions to ornament, in its design it meets every possible requirement, and its cost when completed will fall not far short of about £12,000, an amount advanced by the professional gentlemen alluded to from their own private resources.

We would wish to see this Institution properly fostered by the Government; the whole establishment is a credit to the Province, and we hope that no parsimonious spirit will mar its usefulness. The new Asylum will be ready for occupancy in the course of a month or two, although we believe the patients will not be removed until next spring.

We missed our old friend Dr. Von Iffland, whose retirement from the post of Resident Physician we had not heard of until our visit. His place is supplied by a gentleman of the name of Payne, in whose judgment the medical officers have, we doubt not, every reason to place confidence.

THE CHAIR OF MATERIA MEDICA, McGILL COLLEGE.

The following correspondence occurred at the time Dr. Sewell left this city for Lennoxville, where he now holds an official appointment connected with Bishops' College. In the new sphere of action to which our esteemed friend has transferred himself, we sincerely wish him prosperity and happiness:

Montreal, 27th April, 1849.

Sir,—It being my intention to remove my residence from this city, it will be no longer in my power to retain the situation I at present hold in the Medical Faculty of the University of M'Gill College. Will you, therefore, be pleased to communicate the fact of my resignation to the Governors of the University. To yourself and my other confreres I am indebted for many acts of kindness and urbanity, and shall ever look with pleasure to the period I have had the honor of being enrolled in your honorable band. With much respect I remain,

Your obedient servant and friend,

S. C. Sewell, M.D.,
Lecturer on Materia Medica and Pharmacy,
University M'Gill College.

A. F. Holmes, Esq., M.D.,
Professor and Secretary Med. Fac.
University M'Gill College.

Montreal, 3rd May 1849.

Sir,— Your letter communicating your intention of leaving the city, and consequently your inability to retain your situation as Lecturer on Materia Medica, was laid before the Faculty of Medicine yesterday. The feelings of the Faculty are expressed in the following unanimous resolution:—

"*Resolved*,—That the Faculty of Medicine, sensible of the high attainments of their colleague, Dr. S. C. Sewell, deeply regret the loss which the Institution sustains by his retirement from the

office he now holds, the duties of which he has so zealously and efficiently performed, and beg to assure him that he carries with him, in his retirement, their high respect and their earnest desires for his future success and prosperity."

In conveying to you the above, allow me to say, that the recollection of your urbane and gentlemanly deportment as a professional man must ever remain in the minds of those who have had the pleasure of calling you their colleague.

I remain yours sincerely,

A. F. HOLMES, M.D.

S. C. SEWELL, Esq., M D.

MEETING OF THE BOARD OF GOVERNORS.

The Semi-Annual Meeting of the Board of Governors of the College of Physicians and Surgeons of Lower Canada, was held this day, at the Parliament Buildings, when were present,—

Drs. Nelson,	Drs. Hall,
Morrin,	Gilmor,
Painchaud,	Campbell,
Johnston,	Valois,
Sewell,	Robitaille,
Tavernier,	Sutherland,
Fowler,	Arnoldi,
Bouthillier,	Bibaud,
Von Iffland,	Badgley,
Kimber,	McCulloch,
Chamberlin,	David.

Dr. Nelson, vice-president, in the Chair.

The minutes of the last semi-annual meeting were read.

Dr. Morrin moved, seconded by Dr. Sewell, and it was unanimously resolved, "That the Board of Governors of the College of "Physicians and Surgeons avails itself of its first meeting after "the lamented death of its venerable president, the late Dr. Ar- "noldi, Senr. to express its deep regret at the loss sustained by "the profession in general, and the College in particular, and that "a committee of three be now named to draft a fit biographical "sketch of the said Dr. Arnoldi, for the next semi-annual meet- "ing of the College, to be then placed on the records of the Col- "lege."

Drs. Holmes, Hall, and Sutherland were named as the Committee. Excuses for non-attendance were read and accepted from Drs. Landry and Nault both of the district of Quebec.

The Board then proceeded to ballot for a President in the room of the late Dr. Arnoldi. Drs. Hall and Von Iffland were named scrutineers. Dr. Nelson having received a majority of votes was declared duly elected President of the College. Dr Nelson's election to the office of President having caused a vacancy in that of vice-president, for the district of Montreal, the Board proceeded to ballot for that office, when Dr. Holmes was declared duly elected Vice-president for the district of Montreal, he having received the majority of votes; the scrutineers being Drs. Von Iffland and Hall.

The President named Drs. Morrin, Gilmor and Tavernier, a committee to examine the treasurer's books and accounts.

Dr. Hall, seconded by Dr. David, gave notice of some amendments to the By-Laws. (Which we will publish in our next number).

The following gentlemen possessing American Degrees and having been at least ten years practising in Canada were sworn and granted their Licenses to practise in conformity with the amended act 12, Vict. Chap. 52, viz :

Antoine P. L. Consigny, M. D., Sherman P. Barnum, M. D. Oliver Newell, Norman Cleaveland, M. D., John Meigs, M. D. and François X. Perrault.

Æneas McDonnell, M. D., McGill College, was also sworn and granted his License.

The Board then adjourned for an hour.

3 P. M., Met conformable to adjournment.

The same governors present.

The committee reported the treasurer's accounts correct.

The Board then divided into committees and proceeded to examine candidates.

When Messrs. Chs. A. Brown, François Dusault, Guill. J. A. Vallée, Pierre Lafarge, having been found qualified, were granted their Licenses and seven gentlemen remanded to their studies.

The following were admitted to practise as Chemists and Druggists.

Mr. William Benning, Joseph Drake and W. H. Hingston; and the following having passed their preliminary examination, were allowed to enter upon the study of medicine, viz :

Messrs. Alexis Charbonneau, William Wilson, Stephen Duckett, William Gilmor, Victor Ed. Perrault, Pierre H. Danserau, Léon A. Beaubien, Alfred Cypiot, Edouard Amiot, Joseph Ed. Ferté, Alfred Bissonet. Two other gentlemen were admitted Licentiates, and 3 students admitted, but their names are omitted, as they have not complied with the By-Laws.

The board then adjourned.

A. H. DAVID, M. D.
S. D. M.

Montreal, 9th October, 1849.

LICENTIATES OF THE COLLEGE OF PHYSICIANS AND SURGEONS, CANADA EAST.

The following gentlemen were admitted :—

Joseph Jules Julien Marion,	June	2nd.	1849.
Antoine P. L. Consigny, M.D.,	October	9,	1849.
Sherman P. Barnum, M.D.	"	"	"
Norman Cleaveland, M.D.	"	"	"
John Meigs, M. D.	"	"	"
Æneas M'Donell, M. D.	"	"	"
Oliver Newell, ...	"	"	"
Charles A. Brown, ...	"	"	"
François Dusault, ...	"	"	"
Guillaume J. A. Valleé, ...	"	"	"
Pierre Lafarge, ...	"	"	"

LICENTIATES OF MEDICAL BOARD, CANADA WEST

James Bates, L.R.C.S.L.,	July	7,	1849.
George Calachan Cotter,	July	14,	1849.
William Markland Lyon,	"	"	"
Augustus Jukes,	"	"	"
Thomas Halliday Watt,	July	21,	1849.
James George Curlett,	"	"	"

LICENTIATE OF MEDICAL BOARD, CANADA EAST.

Name omitted in its proper place.

James F. Wolff, ...January 4, 1841.

MIDWIVES ENREGISTERED.

The following midwives have been duly licensed by the College of Physicians and Surgeons of Canada East, in addition to those previously Gazetted :—

Mrs. Hannah Murray, ...	Montreal.
" James Gibson, ...	"
" Margaret Reid, ...	Chambly.
" Eteinne Bellinge, ...	Montreal.
" Jean B. Beauchamp, ...	"
" Francois Bellaire, ...	"
" Xavier B. Tessier dit Lavigne,	"
" Olivie Gagné, ...	"
" Jane Christie, ...	"
" Martha Bower, ...	"
" Mey Donaldson, ...	Quebec.

The Cholera in Canada.—This epidemic has now ceased, no new cases having occurred since the 15th of last month. In consequence, the Central Board of

Health, by proclamation in the *Official Gazette*, has been discontinued. In our next, we will endeavor to lay before the Profession a summary of the progress of the disease in the Province. It is also declining in the United States and Europe.

TO SUBSCRIBERS.

Mr. R. D. Wadsworth is now on a tour in the Gore, Talbot, and Niagara Districts, and we hope our friends in these places will avail themselves of his visit to send us long lists of names as Subscribers to the *Journal*, and that those who may be in arrears for the past or present volume will, at the same time, hand him the amount.

Mr. Grafton will wait on our friends in a portion of the Eastern Province, for the same purpose, and we have no doubt will be well received.

OBITUARY.

At his residence in Picton, C.W., on the 17th ultimo, Dr. Andrew Austin, after an illness of 10 days, aged 61 years.

In this city, on Wednesday, 10th ultimo, Dr. Regnault, of Cholera. Dr. Regnault formerly practised at St. Pierre les Bequets.

On Thursday last, at Guelph, Mathew Campbell, Esq., M.D., late of the Township of Binbrook.

NOTICE TO CORRESPONDENTS.

Letters have been received from Dr. Marsden.—Dr. W.'s enclosed letter has been handed to Dr. A.—From Dr. Barrett, Sorel. The paper will receive insertion next month.—Dr. Gilbert, Hatley, request complied with, ad hoc.

Dr. Carter, Atlanta, Georgia. We have received a letter from this gentleman. We have forwarded a specimen number, and will be happy to number him on our list. Dr. C. will notice the terms of Subscription on our title page.

ERRATA IN DR. MARSDEN'S PAPER IN OUR LAST.

At page 143, line 29—for Loudon read "Gordon."
" 144, " 9—for Loudon's read "Gordon's."
" " " 15—for Conleyn read "Corbyn."
" " " 22—for Peruov read "Seroor."
" " " 32—for Outon read "Orton."
" " " 33—for Betlary read "Bellary."
" " " 44—for Shooty read "Ghooty."
" " " 59—for Sir S. read "Sir T." And for K. J. read "K. T."
" " " 67—for Lecunderabad read "Secunderabad."
" " " 73—for Travancove read "Travancore."
" " " 79—for Nagricoil read "Nagracoil."
" 145, " 19—for Nonneaux read "Nouveaux."

MONTHLY METEOROLOGICAL REGISTER AT MONTREAL FOR SEPTEMBER, 1849.

Date.	Thermometer.				Barometer.				Winds.			Weather.		
	7 A.M.	3 P.M.	10 P.M.	Mean.	7 A.M.	3 P.M.	10 P.M.	Mean	7 A.M.	Noon.	6 P.M.	7 A.M.	3 P.M.	10 P.M
1,	+ 58	+71	+52	+64.5	29.67	29.69	29.73	29.70	W	W	W N W	Fair	Fair	Fair
2,	" 51	" 66	" 58	" 58.5	29.81	29.80	29.86	29.82	N W	N W	N W	Fair	Fair	Fair
3,	" 56	" 70	" 58	" 63.-	29.94	29.90	29.92	29.92	W by W	S	S	Fair	Fair	o'erc'st
4,	" 50	" 74	" 60	" 62.-	29.97	29.91	29.88	29.92	S	S by W	S	Fair	Fair	Cloudy
5,	" 66	" 79	" 67	" 72.5	29.87	29.78	29.69	29.78	S	S	S	Fair	Fair	Fair
6,	" 70	" 78	" 70	" 74.-	29.69	29.59	29.52	29.60	S by E	S S E	S S E	Fair	o'erc'st	Rain
7,	" 71	" 63	" 49	" 67.-	29.37	29.55	29.75	29.56	S	W	W	Rain	Fair	Fair
8,	" 49	" 62	" 52	" 55.5	29.83	29.88	29.89	29 87	N	N	N	Fair	Fair	Fair
9,	" 51	" 66	" 55	" 58.5	29.94	29.92	29.99	29.95	N	N	W	Fair	Fair	Fair
10,	" 56	" 71	" 59	" 63.-	30.05	30.07	30.10	30.07	W	W	W	Fair	Fair	Fair
11,	" 57	" 75	" 61	" 66 -	30.12	30.08	30.04	30.04	W	W	W	Fair	Fair	Fair
12,	" 60	" 76	" 64	" 68.-	30.05	29.94	29.92	29.97	S S W	S S W	S S W	Fair	Fair	Fair
13,	" 61	" 59	" 55	" 60.-	30.01	30.04	30.05	30.03	S W	S W	S W	Rain	Rain	Cloudy
14,	" 56	" 73	" 64	" 64.5	30.05	29.93	29 80	29.93	N	S W	S	Fair	Fair	Fair
15,	" 58	" 63	" 51	" 60.5	29.78	29.84	29.88	29.83	N W	E	E	Rain	Fair	Fair
16,	" 56	" 67	" 58	" 61.5	29.74	29.53	29.44	29.57	E	E by S	E	Rain	th.&rn	th &rn
17,	" 63	" 72	" 59	" 67.5	29.52	29.57	29.64	29.58	S	S	S	Fair	Fair	Fair
18,	" 54	" 60	" 46	" 57.-	29.76	29.83	29.93	29.84	S	S	S	Fair	Fair	Fair
19,	" 44	" 62	" 43	" 53.-	29.99	30 00	30.04	30.01	S E	S E	W	Fair	Fair	Fair
20,	" 43	" 61	" 49	" 52.-	30.01	29.96	29.85	29.94	N W	N W	N	Fair	Fair	Cloudy
21,	" 45	" 56	" 57	" 50.5	29 83	29.74	29.69	29.75	N W	N W	N W	Fair	Fair	o'erc'st
22,	" 58	" 59	" 77	" 58.5	29.58	29.39	29.25	29.41	W	S	S	Rain	Rain	Rain
23,	" 56	" 58	" 50	" 57.-	29.21	29.18	29.30	29.23	S	S	S W	o'erc'st	Rain	Rain
24,	" 47	" 51	" 51	" 49.-	29.40	29.38	29.36	29.38	W	W N W	W	Cloudy	Show's	Cloudy
25,	" 49	" 63	" 56	" 56.-	29.45	29.42	29.23	29.37	W	S W	S	Fair	Fair	Cloudy
26,	" 57	" 58	" 48	" 57.5	29.14	29.34	29.46	29.31	S W	S W	S W	Rain	Cloudy	Fair
27,	" 42	" 50	" 44	" 46.-	29.55	29.60	29.56	29.57	E S E	E S E	S E	Fair	Fair	o'erc'st
28,	" 53	" 53	" 56	" 53.-	29.53	29.57	29.63	29.58	E	E	E	Rain	Fair	Rain
29,	" 47	" 53	" 43	" 50.-	29.74	29.71	29.69	29.71	S E	E	E	Cloudy	Rain	Fair
30.	" 40	" 54	" 42	" 47.-	29.71	29.62	29.57	29.63	N W	N W	N W	Fair	Fair	Fair

Therm. { Max. Temp., +79° on the 5th
Min. " +40° " 30th
Mean of the Month, 59.1

Barometer, { Maximum, 30.12 In. on the 11th
Minimum, 29.14 " 26th
Mean of Month, 29.73 Inches.

MONTHLY METEOROLOGICAL REGISTER AT H. M. MAGNETICAL OBSERVATORY, TORONTO, C. W.,—SEPTEMBER, 1849.

Latitude 43°. 39′.4. *N. Longitude* 79°. 21′.5. *W. Elevation above Lake Ontario*, 108 *Feet.*—(*For the Brit. Amer. Jour. of Med. and Phys. Science.*)

Day.	Barometer at Temp. of 32°.				Tension of Vapour.				Temp. of the Air.				Humidity of the Air.				Wind.			Inches of Rain.	Weather.
	7 A.M.	3 P.M.	10 P.M.	Mean	7 A.M.	3 P.M.	10P.M	Mean	7A M	3 P.M	10P.M	Mean	7A.M	3P.M	10P.M	Mean	7 A.M.	3 P.M.	10 P. M.		
1,	29.739	29.723	29.766	29.742	.253°	.266°	.271°	.265	51.0	62.6	50.6	53.8	.69	.48	.75	.67	Calm.	N. W.	N. N. W.	—	Gen clear and uncl'ded; very fine day
2,	29.876	29.826	—	—	.293	.471	—	—	60.5	62.8	—	—	.57	.81	—	—	Calm.	S.	——	—	Unclouded; hazy rnd horizon; fine day
3,	29.843	29.782	29.761	29.796	.321	.462	.439	.398	50.2	67.9	59.4	58.4	.90	.70	.88	.82	Calm.	S. E. by S.	Calm.	—	Zenith cl'r; lt cl'ds and haze rnd hor
4,	29.742	29.721	29.712	29.729	.471	.549	.527	.515	62.8	71.4	63.4	65.6	.84	.73	.93	.84	S.	S.	Calm.	—	Mostly cl'd; a few cl'r spc's occas'n'ly
5,	29.691	29.536	29.510	29.602	.546	.636	.551	.569	66.8	74.6	66.0	68.4	.85	.77	.89	.84	S. by W.	S. by W.	Calm.	—	Mostly cl'd; sheet lightning at 10 pm
6,	29.529	29.466	29.460	29.486	.545	.408	.346	.436	65.0	56.3	51.4	57.7	.91	.92	.93	.92	N. N. W.	N.	N N W	0.270	Densely overcast; slight rain all day; ceased about 9.40 pm
7,	29.530	29.640	29.745	29.635	.310	.262	.260	.273	49.0	58.8	42.6	49.6	.90	.51	.97	.80	Calm.	N. W.	Calm.	0.450	Gen o'erc'st; faint auroral light at 9 pm
8,	29.802	29.891	29.956	29.881	.290	.361	.273	.303	47.8	57.6	46.8	50.4	.89	.77	.90	.84	N.W.by W	N.W.byN.	Calm.	inappl	Am mostly clouded; pm clear and fine; faint aur lt with streamers 9 to 10 pm
9,	30.084	29.924	—	—	.291	.340	—	—	55.4	60.0	—	—	.67	.67	—	—	Calm.	S. S. W.	——	—	Am clear; pm lightly overcast
10,	30.014	30.075	30.047	30.062	.348	.418	.352	.358	51.6	61.4	52.1	55.7	.83	.71	.92	.82	Calm.	S. S. E.	Calm.	—	Uncl'ded; hazy rnd hor; very fine day
11,	30.035	29.983	29.959	29.990	.374	.501	.390	.414	53.4	67.4	54.8	57.8	.93	.77	.92	.88	Calm.	E. by S.	Calm.	—	Uncl'ded; hazy rnd hor; very fine day
12,	29.952	29.889	29.885	29.910	.346	.521	.443	.431	51.4	71.2	57.0	59.3	.93	.71	.97	.87	Calm.	S. by E.	Calm.	—	Gen clear; aurora light 10 pm to 1 am; arch and patches 10.30 pm
13,	29.907	29.901	29.926	29.912	.377	.533	.487	.466	59.0	67.3	59.7	61.0	.77	.82	.97	.88	Calm.	E. S. E.	Calm.	—	Densely cl'd; dis thndr in N W at 3 pm
14,	29.953	29.859	29.811	29.879	.504	.546	.460	.498	61.1	68.3	58.8	62.6	.96	.81	.94	.90	Calm.	E. S. E.	Calm.	—	Am densely cl'ded; pm partially cl'ded; dense fog 9 pm
15,	29.794	29.766	29.754	29.766	.480	.534	.492	.508	60.0	67.6	61.8	63.5	.95	.81	.91	.89	Calm.	E. S. E.	Calm.	0.005	Densely cl'ded all day; slt rn 6 to 9 am
16,	29.630	29.551	—	—	.643	.619	—	—	71.6	80.1	—	—	.85	.65	—	—	S.W. by S.	W. by N.	——	—	Partly cl'd; thunderstorm, lightning and rain 9 pm to midnight.
17,	29.588	29.587	29.712	29.631	.448	.415	.311	.409	61.7	71.6	51.0	62.1	.83	.53	.76	.74	N. N. W.	N.W.byN.	Calm.	0.145	Generally cl'd am; cl'r & uncl'd fr 9 pm
18,	29.841	29.859	29.898	29.864	.338	.494	.272	.339	53.0	62.7	47.2	53.9	.86	.89	.83	.81	Calm.	S S W	Calm.	—	Clr save a few lt clouds; faint aur light 9 to 11 pm
19,	29.984	29.917	29.866	29.923	.232	.306	.305	.278	48.2	56.2	52.3	51.8	.69	.68	.79	.73	N. N. E.	E. by S.	E. N. E.	—	Am mostly clear; pm densely o'ercast
20,	29.797	29.695	29.616	29.710	.315	.410	.366	.366	52.0	66.0	55.6	56.8	.82	.66	.85	.79	N. E.	E. by S.	E. by S.	—	Mostly o'erc'st; dropping rain at 11 pm
21,	29.646	29.570	29.517	29 578	.328	.506	.478	.436	53.8	64.4	59.5	59.7	.81	.80	.96	.86	N. N. E.	S. E. byE.	Calm.	inappl	O'erc'st lt haze; lightning in N & N W at 10 and 11 pm
22,	29.434	29.215	29.189	29.283	.499	.382	.309	.412	60.3	71.1	54.9	62.0	.97	.51	.73	.77	Calm.	W. by N.	N. W.	0.070	Slt rn fr 6 to 8 am; gen o'rc't; l'tning 6 to 10 pm
23,	29.339	29.474	—	—	.384	.275	—	—	57.0	52.0	—	—	.84	.72	—	—	N. N. W.	N. N. W.	——	0.160	Rn fr 1 to 4 am; densely o'rc't all day;
24,	29.541	29.419	29.386	29.449	.204	.345	.338	.293	39.8	63.8	53.8	51.8	.84	.59	.83	.76	Calm.	W. S. W.	Calm.	—	patches of auroral light 10 and 11 pm
25,	29.421	29.230	29.024	29.226	.341	.492	.477	.428	50.8	65.2	62.8	59.3	.93	.82	.85	.85	Calm.	S.	S. W. by S.	—	Lt detached clds; aur lt fr 10 to 11 pm
26,	29.292	29.378	29.531	29.399	.263	.269	.211	.246	49.9	54.5	41.8	48.6	.74	.64	.81	.73	W. by N.	N. by W.	Calm.	0.055	Light clouds am; densely clouded pm; sheet lightning from 9 to 11 pm
27,	29.627	29.515	29.463	29.539	.173	.298	.319	.259	34.8	49.3	50.8	45.2	.86	.86	.87	.85	Calm.	S.W.by W.	Calm.	—	Th'rstorm from midnight to 3 am; day mostly cloudy
28,	29.558	—	29.596	29.557	.312	—	.367	.365	54.9	—	53.4	57.7	.73	—	.91	.77	W. by S.	Calm.	Calm.	0.015	Day clouded; slight rain 1 and 2 pm
29,	29.610	29.539	29.515	29.554	.351	.418	.358	.365	51.1	57.0	51.6	53.4	.96	.92	.96	.91	Calm.	Calm.	Calm.	—	Generally clear; hazy round horizon
30,	29.501	29.399	—	—	.251	.284	—	—	49.6	51.8	—	—	.72	.74	—	—	E.	E. by S.	——	0.310	Lightly overcast; raining fr 4 to 10 pm Densely overcast all day
Mean	29.715	29.675	29.664	29.6840	0.359	0.430	0.376	0.385	53.7	64·1	54.5	57.04	.86	.73	.88	.82	2.75 miles.	6.84 miles.	2.70 miles.	1.480	Hoar frost on the morning of the 9th (1st of the season), also of the 24th & 27th

Highest Barometer, 30.124 on 10th, at 9 a.m. } Monthly
Lowest do. 28.999 on 25th, at 11 p.m } Range 1.125
Highest Temperature observed, 80°.1 on 16th, at 3 p.m. } Monthly
Lowest do 32°.7, on 27th, at a.m. } Range 47.4
Mean Max. Therm., 65°.38 } Mean Daily Range, 16°.04
Mean Min. do 49°.34 }
Extreme Daily Range, 27°.9 from 3 pm of 17th to am of 18th
Mean Temperature, at 2 pm, 64.37 } Differ., 13.26
Do do at 6 am, 51,11 }
Warmest Day, 5th; mean temperature, 68°.37.
Coldest Day, 27th; " 45°.18.

The means are deduced from six observations daily, viz., 6, am, and 2 and 10 pm, and 7 am, and 3 and 11 pm.
Further explanatory notes will be found at the foot of all the Registers for 1845, 1846 and 1847.
Magnetic Disturbances on 12th, from 16th to 20th, G. M. Time. Range of Declination, 1°.0.

Sum of the Atmospheric Currents in miles resolved into the four Cardinal directions.

North	West	South	East
1060,1	1165,2	928,3	683.5

Mean velocity of the wind, 4.23 miles per hour.
Maximum velocity, 18.0 miles from 11 pm to midnight 25th
Most Windy Day, 22d.—Mean veloc per hour, 8.02 miles
Least do. 12th, " " 1.19
Most Windy Hour, noon; mean veloc, 6.99 miles per hour
Least Windy Hour, 6 am; " 2.51 " "
Mean Diurnal Variation, 4.45 miles per hour.

	Temperature.				Rain.		Wind.		Snow.
Year.	Mean.	Max.	Min.	Range.	No. Days.	Inches.	Winds.	Calms	Mean force.	Days.	inch
1840, ..	51.40°	73.6°	30.2°	43.4°	4	1.380			0	—
1841, ..	61.50	80.2	37.7	42.5	9	3.340	195	117	0.26	0	—
1842, ..	55.60	82.6	27.9	54.7	12	6.160	402	222	0.45	0	—
1843, ..	58.98	89.0	32.2	56 8	10	9.760	420	204	0.67	0	—
1844, ..	58.47	81.8	23.2	53.6	4	0.230	283	317	0.26	0	—
1845, ..	55.91	79.6	34.0	45.6	16	6.245	395	225	0.34	0	—
1846, ..	63.41	84.3	37.3	47.0	11	4.595	381	243	0.33	0	—
1847, ..	54.91	74.5	35.0	39.5	15	6.665	442	182	0.33	0	—
1848, ..	53.39	80.4	23.1	52.3	11	3.115	192	63	0.46	0	—
1849, ..	57.04	89.1	32.7	47.4	9	1.480	181	119	0.21	0	—

THE ANATOMY, PHYSIOLOGY, AND PATHOLOGY OF THE EYE,

BY HENRY HOWARD, M. R. C. S. L.,

Surgeon to the Montreal Eye and Ear Institution.

THE SUBSCRIPTION LIST to the above work is still open; and Members of the Profession desirous of subscribing to the same, are requested to furnish their names without delay. The work will be put to press as soon as one hundred subscribers are obtained, thirty-five being now on the list, to whom the price will be $4—and to non-subscribers $5.

Montreal, September 25, 1849.

SCHOOL OF MEDICINE AND SURGERY.

THE LECTURES at the SCHOOL will commence on Monday, the 1st of November, and will be continued till the last day of April, 1850. During the Session, Lectures on the following Departments of Medical Education will be delivered, viz:—

Anatomy,	Practice of Medicine,
Chemistry,	Midwifery,
Materia Medica,	Institutes of Medicine,
Surgery,	Medical Jurisprudence.

The Lectures are given in the French Language.

L. BOYER, M.D.,
Secretary.

Montreal, October 1, 1849.

MASSACHUSETTS MEDICAL COLLEGE.

THE MEDICAL LECTURES of HARVARD UNIVERSITY will commence at the MASSACHUSETTS MEDICAL COLLEGE in BOSTON, on the first WEDNESDAY in NOVEMBER.

Obstetrics and Medical Jurisprudence by	WALTER CHANNING, M.D.
Materia Medica and Clinical Medicine by	JACOB BIGELOW, M.D.
Theory and Practice of Medicine by	JOHN WARE, M.D.
Chemistry by	JOHN W. WEBSTER, M.D.
Pathological Anatomy by	JOHN B. S. JACKSON, M.D.
Anatomy and Physiology by	OLIVER W. HOLMES, M.D.
Principles and Operations of Surgery by	HENRY J. BIGELOW, M.D.

Clinical lectures at the Hospital three times a week by the professors of Clinical Medicine and of Surgery. Surgical operations are very numerous. The safe and effectual practice of etherization is taught in this School. Practical Anatomy is amply provided for by new and liberal arrangements.

Fees for the whole Course, $80. Matriculation, $3. Dissecting Ticket, $5. Graduation, $20. Hospital and Library gratuitous.

A descriptive pamphlet may be had by application, post paid, to David Clapp, Printer, corner of Washington and Franklin streets, Boston.

July 4, 1849,

TORONTO SCHOOL OF MEDICINE.

THE next session will commence on the LAST MONDAY in OCTOBER, and terminate on the LAST MONDAY in APRIL; under the following Lectures:

On Anatomy and Physiology	Dr. ROLPH.
Midwifery and Diseases of Women and Children	Dr. WORKMAN.
Principles and Practice of Surgery	Dr. PARK.
Theory and Practice of Medicine	Dr. MORRISON.
Practical Anatomy	Dr. AIKEN.
Materia Medica and Therapeutics	Dr. LANGSTAFF.
Chemistry	Mr. HURLBURT, A.M.

This school is recognised by the Faculty of Medicine of the University of McGill College, Montreal, and qualifies for graduation, in accordance with its rules.

Toronto, July 16, 1849.