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# THE MEDICAL CHRONICLE.

VOL. II.]

NOVEMBER, 1854.

[No. 6.

## ORIGINAL COMMUNICATIONS.

ART. XX.—*Report on Malignant Cholera amongst the Troops in Canada, in the summer of 1854, made to Dr. ANDREW SMITH, Director-General Army and Ordnance Medical Departments. By W. HENRY, M.D., Inspector General of Hospitals.*

It would, perhaps, have been desirable, that the London College of Physicians, when appointing a committee of their body, two years ago, to collect facts and report on cholera, should have instructed them to consult whether another name ought not to be given to the disease. Every medical man knows that its present appellation is a gross misnomer. The Romans, copying the Greeks, as they servilely did in therapeutics and other things, adopted the word, and we have borrowed it from them; all three attaching to it the idea that redundant bile is the cause of the disease. We know not only is the secretion of bile suspended, but that also what had been collected in the gall bladder cannot pass into the duodenum; all the ducts being paralyzed. The thickening of the blood is the prominent and proximate cause of death; and consequently some term denoting this should be devised, and ought to supersede the present inappropriate name. The Greek term for blood has already been incorporated into not a few medical words, generally recognized, and furnished them with an euphonious termination; and to designate the fatal malady in which that fluid is so vitally changed, there appears to be no good reason why it should not assist in forming another; *Paxemia*, for instance.

Cholera arrived in Quebec, with the emigrants, about the middle of last June. This is, I believe, the sixth time that it has crossed the Atlantic in their train, and ascended the St. Lawrence, since 1832, notwithstanding the quarantine arrangements to prevent it. This alone appears to afford *prima facie* evidence of one, or perhaps the whole of

three things—the inutility of the quarantine, its defective arrangements, or their careless execution. As seems now to be generally admitted, the Grosse Isle Station is too far from Quebec; and the rocky and marshy islet itself is unfit to be a quarantine depôt.

The first case of cholera amongst the military in Quebec occurred on the 25th June. The patient was a soldier of the 66th, on guard over a store in Champlain Street, in the Lower Town. This is a confined and dirty street, running close along the base of the huge, perpendicular rock on which the Upper Town is built; by this position deprived of proper ventilation, and heated much by reflected sunshine besides. It contains a depraved population; is full of low taverns, to which soldiers and sailors resort; and has usually been an early and favorite *nidus* of epidemic diseases. The man was carried to the Regimental Hospital immediately, ran quickly into collapse, and died in a few hours.

It may here be added, that, as had been done on former occasions, the guard was immediately reduced from six to four, by order of the Lieutenant-General Commanding, and would have been withdrawn altogether, but that the contents of the store were valuable, and could not be left unprotected.

The 71st, quartered in the lofty citadel of Quebec, suffered very little from the epidemic. There were only three cases of cholera, of which one man died. The troops are quartered here in casemate barracks, which in spring, when the snow melts, leak a good deal at the roof; but it has always been a healthy spot, although very cold in winter. When quartered there, many years ago, I have observed Fahrenheit—36 deg., on going to the mess at 6 p.m.

The disease appeared soon in the villages near Quebec, and gradually spread through the Province, following, as usual, the course of the river, and other great lines of human intercourse. At Montreal, it attacked the 26th Regiment, and an officer, several men, and a few women and children, became its victims. The Regiment was moved to Quebec, with much sanitary improvement, although another officer died there of cholera.

The 66th relieved the 26th at Montreal; but instead of occupying the Barracks at once, where several instances of the disease had recently occurred, it was thought better that they should be encamped in the Island of St. Helen's, opposite the city, until the Barracks were well cleaned out, whitewashed, and purified by chloride of lime and chloride of zinc.

The encampment of troops, in fine weather, is always favorable to health, especially when some epidemic disease is prevalent. On several occasions in Canada I have witnessed this, particularly during cholera

invasions. Yet, as I conceive, very unfairly and illogically, the cholera that soon appeared in the camp of the 65th was attributed by some to the encamping of the corps, instead of lodging them in the infected Barracks. This was a gross instance of confounding the *post hoc* with the *propter hoc*. According to all fair reasoning, founded on large experience, the probability is, in that case the 65th would have suffered twice as much.

There can be no more healthy, cheerful, nor beautiful site for a camp than on the Island of St. Helens. The ground is dry, with abundant grass, sufficiently elevated, shaded by large, umbrageous trees, and well ventilated by the prevalent south-west wind. The St. Lawrence runs on both sides in a strong current, and from almost every point there is a fine view of Montreal, its guardian Mountain, the banks of the river, and the shipping and smaller craft.

Immediately after the arrival of the 66th, cholera, choleraic diarrhœa, common diarrhœa, and colic, broke out. Eleven cases of collapsed cholera occurred amongst the men, and one case amongst the women; of which nine ended fatally. More than a hundred cases of diarrhœa were admitted, comprising a large proportion of what I have called choleraic diarrhœa, which had every appearance of soon merging into cholera, if not arrested by proper treatment. A good deal of this mischief, during the two first days, was caused by eating largely of the wild cherries that abounded in the island; but they were all gathered and destroyed in a day or two, by order of the officer in command.

Two companies Royal Artillery at Montreal had several cases of cholera, of which three died; there were also a considerable number of instances of colic and diarrhœa. They were encamped, and immediately after their health was perfectly restored.

The 54th Regiment at Kingston had seven bad cases of cholera, and lost four men. They had also, in common with every Regiment in the Province, double the usual number of colics and diarrhœa. The Royal Artillery at Kingston lost one woman from cholera.

A large detachment of the Royal Canadian Rifles at Port Henry, near Kingston, suffered severely from the epidemic, under the following circumstances. Well behaved men of this corps are permitted to work for farmers and others, and earn a good deal in this way. A party was employed in making rats at Garden Island in the middle of July, when the weather was very hot. This was unhealthy employment; for the feet and legs were usually in the water, and the upper part of the body was often in hot sunshine. Seventeen of the men were attacked with cholera of the worst form, and twelve died. The party was immediately withdrawn.

Head quarters and two companies of the same Regiment at Toronto escaped the disease ten weeks, although it was prevalent amongst the civil population of the town. At last one case of bad cholera and several cases of choleraic diarrhoea appeared. One man died.

The detachments of the Rifles at Niagara and Prescott escaped entirely, and the party at Isle aux Noix would, probably, have been equally lucky but for the accident of a man coming into Montreal, who caught cholera here and died.

The following table has been prepared from the Returns of the Medical Officers.

CORPS.	Strength of Men, Women, Children and followers.	Cases of				Total.	Died.
		Collapsed Cholera.	Choleraic Diarrhoea.	Common Diarrhoea.	Colic.		
Royal Artillery, .....	6132	7	20	19	2	48	5
26th Regiment, .....		30	23	39	1	83	14
51th do., .....		7	20	30	5	62	4
66th do., .....		14	33	56	16	131	12
71st do., .....		3	3	4	2	12	1
Royal Canadian Rifles, .....		19	27	28	4	78	14
<b>TOTAL.</b>	6132	70	123	176	30	204	50

Only three of the bodies were opened, *post mortem* examinations having been left to the discretion of the medical officers; for it appeared to me, that making this point of ordinary duty imperative on contagionists in cholera would have been wrong.

In the bodies opened, there was nothing seen but what has been observed often before. The blood was viscid and uncoagulated; the gastro-intestinal mucus membrane reddish and congested, and the white part of the brain thickly studded with red points.

Six of the deaths arose from secondary fever, with marked head symptoms, after apparent convalescence.

*Treatment of Diarrhoea.*—During the epidemic of this year, I have seen no case of cholera in the military hospitals, nor has any been reported.

ed, which had not been preceded by diarrhœa of mild or severe type, and of longer or shorter duration. It is now generally allowed to be the first stage of the disease, in which it may be cut short without difficulty.

The medical officers here have effected this in different ways, each employing his favorite medicines. Indeed, the secret of success seems to have been the early administration of the remedy. Calomel, followed by an o'leaginous purgative, occupies the first place, and has been most generally used; next, calomel and opium; then rhubarb and magnesia, diluted sulphuric acid, rhubarb and ginger, &c. &c. A few trusted to acetate of lead and other astringents; but this appears to have been the least successful practice. Some gentlemen gave calomel and opium in a pill; but pills have always appeared to me objectionable where time is valuable.

As I had done in four previous epidemics of this kind, I recommended the following treatment:—Patient to lie down on bed on the right side; if an adult, two tablespoonfuls of castor oil, and fifteen or twenty minims of tincture of opium are to be beaten up well in a cupful of hot milk, or milk and water into an emulsion, and administered. The milk must be very hot. If the oil is rejected, which, when thus prepared, is rarely the case, it is to be repeated in half an hour.

The position is intended to facilitate the gravitation of the fluid, that it may pass quickly into the intestines.

With this medicine only, assisted by tepid demulcent drinks, I have treated successfully several hundred cases of diarrhœa during cholera epidemics since 1832; and on various occasions, when attacked myself with choleraic diarrhœa, in these trying seasons, or when members of my family have been ill, we have trusted to this alone.

The oil and laudanum appear to glide soothingly through the small intestines in contact with the mucous membrane, where congestion may be commencing. This the oil appears to dissipate, by gently exciting the normal peristaltic action, and thus eliminating the morbid and irritating secretions. This theory may be wrong, and the *modus operandi* here glanced at defective, in some important particulars, yet I am certain as to the value of the practice.

In their Cholera Reports the medical officers under my command give testimony in support of this.

*Treatment of Collapsed Cholera*—The London College of Physicians have published this year a valuable Report on Cholera, which was drawn up by Drs. Baly and Gull. The pathology and treatment were entrusted to Dr. Gull; and he has illustrated the subject in various ways, amongst others, by giving the result of modern researches into the chemistry of healthy and choleraic blood. The authors, who have most ably inves-

gated this point, are represented to be Dr. Garrod, of London, and Dr. Schmidt, of Dorpat; and the latter attempted to calculate exactly the loss the blood sustains in a given time, by the transudation of its serum on the skin, and in the intestines, and of a part of the fibrine that is washed away. But it is manifest that this process must vary according to the respective idiosyncrasies of cholera patients, the violence of the attack, and other causes; and it is not strange that, in this arduous attempt to measure accurately the crassitude and quality of choleraic blood, Dr. Schmidt should have failed, as his reviewers say he has.

And even if he had succeeded, *an bono?* The most elaborate chemical experiments on the distinctive characteristics of choleraic and normal blood neither shew the cause of the transudation—the great *arcana* minor lead to a knowledge of the proper treatment of the disease.

It appears that a great effort is made in the system to compensate the serious loss the blood is sustaining, by sucking fluid from all the tissues, and pouring it into the heart or large vessels; and some have imagined, that muscular spasms are owing to this sudden abstraction of moisture, which was necessary to the muscles, either at rest or in action.

The blood having lost most of its watery constituents, becomes of the consistence of tar or treacle, and is rendered uncirculeble in the smaller vessels. It cannot be acrified and heated in the lungs, nor penetrate the capillaries of the brain, and excite its proper and mystic functions. How, then, is life to be supported under these circumstances? The most obvious method to re-invigorate the vital powers is to restore the blood to its normal consistency, by the injection of an artificial serum of proper temperature; and no doubt when this was first practised in Edinburgh, in 1832, the operator believed he had in reality discovered the *elixir vitæ*, though not given by the mouth. But his triumph was only for an hour; an element of the blood could not thus be created—the forced mixture which had momentarily exercised electric influence soon separated, probably in the brain, for all the patients died with symptoms of cerebral congestion.

In 1832, at Kingston, in this Province, my friend Dr. Sampson and myself injected a quasi-serum into the veins of twenty poor emigrants in the collapse of cholera. The immediate restorative effects were wonderful, but they all died with symptoms of effusion on the brain.

During the last summer, Dr. Sutherland, Professor of Chemistry in the McGill University here, prepared, with the greatest care, an exact imitation of the serum of the blood, and injected the fluid, of blood heat, in three cases of collapsed cholera, but with the same result.

When collapse has taken place for some hours, all attempts at recovery appear to me hopeless, although it is doubtless our duty to persist as long

as a spark of life remains. But within a shorter period experience proves that a stimulus introduced into the stomach, which shall support the expiring powers, and enable the veins of that organ, and other channels, to convey fluid to dilute the blood, appears the grand *desideratum*. In the military hospitals, besides the ordinary calefactive external applications, calomel, in small doses, frequently repeated, has been chiefly relied on; to this have been added camphor, capsicum, ammonia, champagne, and a host of other medicines. These remedies, and some scores besides, have been either given by myself or under my immediate observation, during twenty years' experience, in cholera; but I regret to say with little effect.

But there is one powerful stimulant, which I have never employed, although I had read of its use in the Parisian hospitals, namely, strychnine; and this really appears the best of all. In the late epidemic, Dr. Fraser, a Professor of the McGill University, gave it in doses of 1-48 of a grain, dissolved in acetic acid and alcohol, every fifteen minutes, or in very severe cases, every ten minutes, to twenty-two patients under collapsed cholera, in the Montreal General Hospital, without selection. The result was more favorable than I have ever observed, or than any recorded instances of which I have read or heard; fifteen of the twenty-two recovered.

Dr. Fraser has given the names of his patients, and a few other particulars, in the September number of the Montreal Medical Chronicle; and this statement is therein corroborated by two medical officers of the hospital. Another physician of that institution, Dr. Campbell, says in the same number, he has used strychnine in cholera, in doses of 1-32 of a grain in three bad cases, with considerable benefit; and adds that he thinks it the best stimulant hitherto employed in the disease. I am of the same opinion, but would recommend iced champagne and water as an accompanying drink during its use.

The military cases of cholera this year have been almost universally asthenic and typhoid, and consequently most dangerous. They have differed essentially from those in 1832, when the disease was first seen in this country. I was then surgeon of the 66th Regiment; and the first eleven men that were attacked labored under very severe spasms, with flushed faces, hot skins, and strong action of the heart and arteries. They were all bled from the arm, and recovered.

The castor oil treatment of King's College, London, does not appear to me likely to continue in favor in that institution. However valuable in the first stage of cholera, this medicine, I think, is useless in the collapse.

*The labors of the medical officers in this command, during the late*



emergency, have been most praiseworthy. Half of them had threatening diarrhœa; but in no instance did it end in cholera. And it has been gratifying to see them, vying with their civil brethren throughout the Province in yielding gratuitous aid to the poor. One of the leading medical gentlemen in this city is said thus to have lost his life, when predisposed to cholera, by severe professional work. The clergy of all persuasions exerted themselves in visiting the sick. And as we know that under the direction of a beneficent Providence good often springs from evil, there is ground for hope that much softening of religious and political acerbities may result from the late infliction.

MONTREAL, 18th Oct., 1854.

**ART. XXI.**—*Small Calculi (Phlebotites?) taken from between the Walls of the Vagina, in a colored woman who died of chronic tubercular peritonitis.* By GEORGE D. GIBB, M.D., Physician to the West London Free Dispensary; Fellow of the Medical Society of London; Member of the Provincial Medical and Surgical Association of England.

If the many valuable monographs of the present day which especially treat upon the diseases of the female organs of generation, whether in connection with gestation, or exclusively distinct from that process, be carefully consulted, we shall find almost every imaginable pathological condition, every possible state in fact, even slightly deviating from health, in relation to uterine or vaginal disease, have been therein described. Should any rare condition, however, have escaped notice in these standard works, its description is to be met with in some one of the periodicals of the day.

Many years ago, when holding office in the Montreal General Hospital, a case came under my notice which, from its extreme rarity, excited considerable interest, but which I have only lately brought before the profession here, and now publish it more in detail in the pages of the Medical Chronicle, as it may most probably be within the recollection of many of your readers to have witnessed it.

Calculi have been found in almost every organ of the body. According to their seat, and according to their composition, have they been denominated concretions, isolated or extraneous growths, deposits, &c. If we specially consider the urinary organs, they have been found in the kidneys, the ureters, the bladder, the prostate gland in the male, and in the urethra of the male and female. On the other hand, if we turn to

the generative organs, we discover their rarity to be the rule. Calculi have been found in the uterus, and have been classed under the head of uterine molts. Dr. Waller mentions an instance in the second volume of the *Lancet* for 1839-40. My friend Dr. Edward Crisp has shown me a specimen from the uterus, resembling in its characters solid bone. Dr. Ashwell dwells upon them, and supposes them to be the *womb stones* of the older pathologists. And Rokitansky speaks of osteoid growths occurring in this organ. The vagina has been lined with calcareous substances, adhering to its mucous surfaces, but has never been found to contain calculous concretions. Foreign bodies do not come within this category. No writer has noticed the occurrence of these concretions in the walls of the vagina, and the case here recorded is most evidently unique, as no similar one, nor one possessing any of its features, can I find on searching several hundred volumes.

In the summer of 1845, a married colored woman, aged 45, who had borne children, was admitted into the General Hospital at Montreal, suffering from scrofulous disease of the mesenteric glands. There was a good deal of obscurity in the general symptoms, which were at times those of chronic peritonitis, accompanied with great debility and general wasting, from which she died on the 25th September following. At the *post mortem* examination, all the abdominal viscera were found agglutinated together by old adhesions, in numerous parts of which were deposits resembling tubercle. The peritonæum was much thickened and rough from chronic inflammation. The tubercular deposits were very conspicuous on the omentum and between the layers of the mesentery; and the small intestines were much congested, and covered with mixed deposits of lymph and tubercle. The uterus was enlarged to the size of a fetal head, and appeared to be disorganized by the infiltration of tubercle; it adhered posteriorly to the rectum, communicating with, and engaging that viscus in the disease; anteriorly it adhered to the bladder, and the fallopian tubes and ovaries could not be distinguished. The os-uteri was swollen, but presented nothing remarkable. The coats of the vagina were very much thickened, and on cutting into them, the knife grated upon some hard substances. This led to a careful dissection, when thirty-one small white calculi, in size from a pin's head to a very small pea, were removed from between the external and the middle coats of the vagina; they were not confined to any particular spot, but were chiefly scattered over the anterior surface of the coats, and were enveloped in cellular tissue. They were white in color, and of the hardness of bone, but their chemical composition had not been ascertained.

The report of the above case, together with the calculi, were brought before the Pathological Society of London, on the 16th May last, through the kindness of my friend Dr. Sibson, physician to St. Mary's Hospital. I mentioned in the report that I believed no calculi had heretofore been found in the same situation. In the course of the discussion, Mr. Partidge enquired if careful examination had been made at the *post mortem* to ascertain whether the concretions were within the cavities of veins, and if so, they were phlebolites. Dr. Peacock concurred in Mr. Partidge's opinion, that the little bodies were probably phlebolites. As I was not present at this meeting, the question could not be answered by the secretary, Dr. Quain; but in a subsequent letter to him, I informed him they were *not* found in the cavities of veins; there were no traces of vessels near them, and that they were enveloped in cellular tissue.

At the request of the Society, Dr. Lionel Beale made an examination of them, in order to determine their real nature. The following was his report on the specimens which, together with the details of the case, and several drawings, have just been published in the fifth volume of the Transactions of the Pathological Society:—

One of the smaller of the round bodies was ground down upon either side, in order to make a thin section. Upon subjecting this section to examination, with a quarter-inch glass, it was seen to consist of a clear, transparent material, exhibiting an indistinct arrangement of concentric lamellæ arranged round the central portion of the body. Scattered through this matrix were a number of irregularly stellate dark spots. These were more abundant in some localities than in others, but everywhere were characterized by the same general characters, irregularity of form and size, highly refractive nature, and hard, dense structure, as was determined by endeavoring to crush them between glasses.

Acetic acid did not act upon the sections in the cold, but upon applying a gentle heat; slight action ensued, and was accompanied with the development of a few bubbles of gas.

Nitric acid acted energetically, with brisk effervescence, leaving behind organic matter colored yellow by the action of the acid. Upon subjecting this matrix to microscopical examination, it was seen to consist of fibrous laminae, arranged parallel to each other, and forming a somewhat loose and irregularly fibrous mesh-work (plate X., fig. 8), much disposed to break in the transverse direction. In fig. 9, the appearance of one of the fibres, represented in the lower part of fig. 8, is shown under a power of 220 diameters.

Upon the addition of excess of ammonia to the nitric acid solution, a

\* See Med. Times and Gazette 10th June, 1854, p. 608.

precipitate occurred, which, upon examination, was found to consist of amorphous phosphate of lime, with numerous well-formed crystals of the triple or ammoniaco-magnesian phosphate. Oxalate of ammonia gave an abundant precipitate of oxalate of lime in an acetic acid solution of the salts,—insoluble.

Hence the mass subjected to examination consisted of an organic matrix, in which were deposited inorganic salts, consisting of carbonate and phosphate of lime, with phosphate of magnesia. The organic material protected the inorganic matter from the action of acetic acid; while the strong nitric acid readily permeated the animal matter, and dissolved the salts, as above mentioned.

It will be seen from this examination that the bodies agree in general character with phlebolites. That they were found in cellular tissue cannot, I think, be urged as an argument against their being looked upon as of this nature, for “large phlebolites often lie in saccular pouches on the side of the vein. . . . When the lining and the circular fibrous coats of the capsule are gradually destroyed, the phlebolite finally lies in a capsule of cellular tissue; and this appearance may have given rise to the opinion that the phlebolite is originally developed in the *cellular tissue outside the vein.*” “Rokitansky’s Pathological Anatomy;” Transl. Sydenham Society, vol. iv., page 356.

From the preceding report of Dr. Beale, it will appear that these calculi possess the general character of phlebolites, and although they were not found in the interior of veins, nor yet even in contact with any of these vessels, it is possible they may have become so completely atrophied as to escape notice. What further confirms this, is the explanation quoted by Dr. Beale from Rokitansky, as to the manner in which they do become isolated. Furthermore, if phlebolites have been found in the uterine and pelvic veins, as mentioned by Dr. Ashwell, it is reasonable to suppose the possibility of their occurrence in the walls of the vagina; more particularly, as the plexuses of veins, both from the vagina and uterus, unite, with others, for the purpose of joining the internal iliac vein; and Wilson states the veins forming the vesical and uterine plexus are very subject to the production of phlebolites.\*

LONDON, 29th September, 1854.

ART XXII.—*Remarks on Vomiting as a sign of Cholera.* By HECTOR PELTIER, M.D., Edinburgh; Physician Hotel Dieu; Lecturer Inst. Med. Montreal School of Medicine.

Numerous observations have been made on that fatal scourge, Cholera; therefore I hasten to inform my readers that it is not an ex-Professor's treatise which I am undertaking to write.

I wish simply to call the attention of the profession to a symptom which, according to popular belief and medical knowledge, in connection with rice water stools, contributed to establish a true case of cholera. I mean vomiting.

I shall advert to it presently. Of the causes of cholera, we know nothing, besides its being a poison contaminating the atmosphere; how? where from? and by what means? we are truly at a loss.

The symptoms are perfectly well known.

The treatment, the true one, is yet wanting. I am aware of the innumerable drugs which have been, each in its turn, proclaimed as the best. Take up the London Lancet and the Gazette des Hôpitaux for the past twelve months, and there you will find so much about the different treatments recommended, that an honest and well-educated practitioner will not cling to one treatment in particular, but will try every one, after giving each a fair trial. There are respectable physicians in this city who, for what motive no one can tell, boast of their complete success with one particular medicine. Now, I have, like all other practitioners, had unfortunately a very great number of fellow-beings under my care during the epidemic of 1849, and during its last visit this summer. As a medical journal, according to my views, is not got up purposely to insert the successes of its contributors, but also the unsuccessful cases which happen in practice, I consider it my duty to give here the conclusion I have come to, and I believe that every true physician will be convinced. In my practice I have lost more than half of my cholera cases, and that after a diversified treatment. The other half have cured themselves alone, for the same treatment had been employed in both.

It would take too much place were I to give you all the different prescriptions used.

Most of physicians can tell that there were cases cured without any aid. I must be well understood; I am speaking only of genuine cases. As for promonitory symptoms, here physicians render a most unequivocal service in giving proper treatment. But I repudiate, as an evil and as a commercial speculation, in common with most of physicians, those preventatives which were sold in such quantities by druggists, and, I regret to say, by a few well-known physicians.

After these cursory remarks, I will bring my readers to the symptoms

vomiting, which is, and ought to be, the only object of this communication.

Vomiting is a symptom which, in cholera, is always expected. Strange to say, from my own experience, I have lost more patients who had not vomited at all. I do not wish to establish an aphorism, for many that died had vomited; but I say, that, on the whole, I lost more who had not vomited. All of those who recovered had vomited plentifully, and what?—bile. If it is an admitted fact that there is always engorgement of the liver in cholera (I am always only speaking of genuine cases), we can then easily understand why those who had vomited were saved, and even without any treatment. If then we find such a beneficial effect, such a good result after vomiting, we shall be induced to follow a treatment which has some advocates in Paris and in the States, without assigning any reason for its adoption. That is: Ipecacuanha in small doses, in the beginning, and even in collapse, if there had been no treatment employed and no vomiting. I have not tried the treatment, because when I read about it, I found no reason given for its use, and my conclusions were not yet drawn as they are now. If we had again the misfortune, which I fear, of being visited with the epidemic, I shall give it a fair trial, and report its results.

I have extremely to the profession to complete my views by their own observations, and they will, I have no doubt, approve of my remarks.

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ART. XXIII.—*Case of diseased Alveolæ.* By FRANCIS CAMERON, M. D.,  
Springwood, C. W.

What I conceive to be a rather rare case of disease, and one interesting to the profession, occurred in my practice some years ago. Daniel Young, aged about 70 years, consulted my medical preceptor for a disease (as he called it) of the roots of his teeth. The doctor finding it likely to prove tedious, committed it to my charge to manage under his advice. Our patient stated that he first experienced a soreness at the roots of one or two of his upper molar teeth, which shortly after became quite loose, and concurrently with the supervention of the dental looseness, a purulent discharge set in from the gums around them. The affected teeth were removed, a feat which was very easily performed, and a lotion of myrrh and borax applied to the affected gums. After the separation and removal of the diseased alveolar processes, the soft parts under this application soon healed. No sooner, however, had one place healed than the disease broke out in another. It thus spread from tooth to tooth in both

jaws until all the teeth were lost and their sockets destroyed. After this he got well, and lived for several years in comfortable health. Perhaps some of the readers of the Chronicle would inquire, Had he taken mercurials previously? I believe not, as his health was good for a long time before. The entire period that the disease took to travel round his masticatories and disappear, was three weeks.

## REVIEWS AND BIBLIOGRAPHICAL NOTICES.

XVII.—*Principles of Comparative Physiology.* By WILLIAM B. CARPENTER M. D., F. R. S., F. G. S., Examiner in Physiology and Comparative Anatomy in the University of London; Professor of Medical Jurisprudence in University College; President of the Microscopical Society of London, &c. &c. With Three Hundred and Nine Wood Engravings. A new American, from the fourth and revised London Edition. 1854. Pp. 752. Philadelphia: Blanchard & Lea. Montreal: B. Dawson. 24s.

As it is clearly impossible for us, with our limited space, to give anything like a fair review of Dr. Carpenter's elaborate and philosophical work on comparative physiology, we shall merely inform our readers of the caption of the different chapters into which the book is divided, and then pass on to a consideration of a new theory of the relations of Forces that has recently been propounded by modern philosophers, and that bids fair to obtain a wide-spread recognition among the literati of the day. Another reason why we do so is: in works such as the one before us, frequent allusion is made to this theory, and if the reader has not already met something bearing on the subject, he will be at loss to comprehend the meaning of those portions of the work where reference is made to the "cor-relation theory." Chapter 1 treats, then, "Of the general plan of organic structure and development." Chap. 2, "General view of the vital operations of living beings, and of their mutual relations." Chap. 3, "Of aliment, its ingestion, and preparation." Chap. 4, "Of absorption and imbibition." Chap. 5, "Of the circulation of nutritive fluid." Chap. 6, "Of respiration." Chap. 7, "Of the exhalation of aqueous vapor." Chap. 8, "Of nutrition." Chap. 9, "Of secretion." Chap. 10, "Evolution of light, heat, and electricity." Chap. 11, "Of generation and development." Chap. 12, "Of the sensible motions of living beings." Chap. 13, "Of the functions of the nervous system." Chap. 14, "Of sensation and the organs of the senses." Chap. 15, "Of the production of sounds by animals."

Look where we will throughout the universe we perceive phenomena no less varied than wonderful in their character. Deep in the interior of the earth we inhabit—on its wide surface, and in the atmospheric stratum that surrounds it—in the systems of worlds whirling through illimitable space, even to those nebulous masses that mark the present boundary of human inquiry in that direction,—results are constantly occurring, which man has been led to refer to operating causes. Whenever these results are constant and invariable, certain determinate circumstances being present, the cause is termed a *force*. Force, then, is an abstract idea, and the term stands the representative of that *something* which the mind recognizes as the active agent in the production of phenomena already familiar to it. Nature has ever been a favorite study with man. He could not, as he increased in years and the powers of his mind became evolved, remain insensible to the endless manifestations of the beautiful that exist throughout nature's wide domain. Nor could he view unmoved many of the startling changes that were ever taking place around him. For ages, however, the causes of these beauties and harmonies which delighted his senses, and the changes which filled his mind with astonishment, and frequently inspired him with awe or terror, were a sealed book to him. It was not until facts had been accumulated by the patient and persevering searchers into the more interior arcana of nature, and by a process of inductive reasoning from the knowledge thus accumulated, that he arrived at those more enlarged views of natural phenomena which obtain at the present day. And even now the study progresses. New views relating to matter and the forces which operate through matter are being worked out by the philosophic mind of the nineteenth century. Truly has it been said, by Baron Humboldt, the scientific Nestor of the day, that, "In considering the study of physical phenomena, not merely in its bearings on the material wants of life, but in its general influence on the intellectual advancement of mankind, we find its noblest and most important result to be a knowledge of the chain of connection by which all natural forces are linked together, and made mutually dependent upon each other; and it is the perception of these relations that exalts our views and ennobles our enjoyments."

Up to the present, as our readers are aware, the phenomena of heat, light, electricity, &c., have been treated of by writers on natural philosophy under the designation of "Imponderable elements and Immaterial matter;" whilst chemical affinity, gravitation, attraction of cohesion, &c., were acknowledged as forces inherent in, and acting on, ponderable matter; and motion was looked upon as the resultant of some force overcoming the *inertia* of matter. Now, however, there is a tendency, exhibited by philosophers, to regard all these, motion not excepted, as so



many forces, either the manifestations of one and the same power, or, at least, having mutual relations, and capable of reciprocally giving origin to each other. Among the first to enunciate this opinion, was Professor Paraday, one of the most profound thinkers and successful scientific investigators of the age; and Baron Humboldt, in his "Cosmos," thus distinctly adverts to it:—"The history of the recognition of the universe is wholly different from the history of the natural sciences, as given in our elementary works on physics, and on the morphology of plants and animals. This is our conception of the history of the *unity of phenomena, and of the reciprocal connection existing amongst the natural forces of the universe.*" Other physicists, English as well as Continental, spoke in terms no less decided in support of the same views; but, until the appearance, in 1846, of a pamphlet entitled, "Cor-relation of Physical Forces," by Prof. Grove, comparatively little had been done to systematise the subject. In this work the writer combats for the indestructibility of force, showing that when it ceases to be manifested in one form, it is developed in one or more different forms; he expatiates at some length upon the nature of the reciprocal relations which forces maintain each to the other, and satisfactorily substantiates the correctness of that view which regards motion as a force, cor-relative with all other physical forces; a view, indeed, of which he is the originator. We shall now exhibit, as briefly as possible, the cor-relation of the physical forces, taking the phenomena of motion and heat to illustrate it.

That motion arrested, and ceasing to exist as such, is capable of producing heat, and that the amount of heat developed is in a direct ratio to the obstruction presented to motion, are facts made familiar to us from the frequency of their occurrence in our daily experience. Every untutored savage knows full well that forcible friction of two dry sticks (for friction is nothing more than retarded motion), if long enough continued, will set one or both on fire. Every machinist is aware of the necessity that exists for oiling the opposed surfaces of heavy machinery while in motion. He knows that if motion be not facilitated in this way, heat is generated to such an extent as to place any combustible substance, or even the wooden material in the vicinity, in considerable danger of ignition. Count Rumford states that in boring a brass cannon, the borer making thirty-two revolutions in a minute, with a pressure of 10,000 pounds, sufficient heat was excited to boil eighteen pounds of water, in which it was immersed in two-and-a-half hours; and his experiments go to prove that bodies never cease to give out heat so long as friction be continued. According to Berthollet, in the act of percussion heat diminishes as a diminution of bulk takes place in the body struck. He submitted a piece of copper to the stroke of a coining press, and found that

at the first stroke 17 degrees Fahrenheit of heat were evolved, at the second 7 degrees, whilst the third produced but 2 degrees; thus proving the truth of that which we have already stated, viz.: the amount of heat generated bears a certain proportion to the amount of resistance offered to motion.

Excitation of electricity may be readily produced by rubbing a stick of sealing-wax with a silk cloth, or a dry glass tube with brown paper, or woollen cloth covered with an amalgam of tin and zinc; but, as yet there has been no determination of the ratio in which electricity has been developed in different bodies by retarded motion. "As a general rule," says Prof. Grove, "it may be said that the development of electricity is greater when the substances employed are broadly distinct in their physical and chemical qualities, and more particularly in their conducting powers; but up to the present time, the laws governing such development have not been even approximately determined."

The electric spark; the flame produced by the rapid and forcible friction of two sticks, are examples of light produced by the retardation of motion.

The manner in which the force motion is succeeded by chemical affinity is exemplified in the lighting of a match and the explosion of a gun cap. The former is prepared with phosphorus, and the latter contains fulminate of mercury; and the ignition of the one, and the explosion of the other, are owing to the destruction of the existing chemical combinations and the formation of new ones. The ammoniacal oxide of silver, and the chloride of nitrogen, violently explode upon the slightest touch.

Thus we see that motion, when it ceases to exist as such, originates, according to various determining circumstances, one or more of the physical forces; and the "cor-relation" existing between them may be easily established, by shewing that the different physical forces are capable of reciprocally exciting the force of motion. Thus, then, the vibration of the pendulum; the divergence of the electrometer; the propulsion of a cannon ball, and the deflection of the magnetic needle, are all movements produced by the operation of physical forces.

According to Dr. Black's theory of latent caloric, which has too often been looked upon as an important truth in thermotics, instead of a mere hypothesis, all bodies contain a certain amount of heat existing within them in a dormant or latent condition; that is, independently of the heat by which the senses are affected, and which is detectable by the thermometer in its passage from one substance to another, there is heat in all bodies inappreciable to the senses, undetectable by the thermometer, and supposed to be chemically combined with them. Thus, if equal

weights or equal bulks of *similar* substances varying in temperature be mixed together, the heat of the resulting substance will be the arithmetical mean of the temperatures of the substances mixed; but, if the substances employed *differ* in their nature, the result will be different. If, for instance, two equal portions of water, one standing at 60, the other at 40 degrees Fahrenheit, be mixed together, the temperature of the mixture will be the mean, or 50 degrees; but, if one pound of mercury at 160 degrees be mixed with a pound of water at 40 degrees, the mixture will exhibit a temperature of 45; so that the 115 degrees lost by the former, increase the heat of the latter by 5 degrees only. Again, to convert any given quantity of water at 212 degs. into steam at 212 degs. an amount of heat is required sufficient to raise the temperature of the water, did it remain in the liquid form, 950 degrees; and in the reduction of vapour at 212 degrees to water at 212, the 950 degrees employed in its production are given out again. On facts such as these was based the theory of latent heat. All the phenomena, however, are quite as explicable by the "cor-relation" doctrine, as by that view which imposes on us the necessity of admitting the unmanifested existence in matter of something whose presence is known to us only through its manifestations. In the vaporization of water, according to the "cor-relation theory," there is a conversion of heat into mechanical force; and conversely, in the reduction of steam to a fluid condition, the mechanical force is changed into heat. The disappearance of caloric when heated mercury and water are mixed together, may be accounted for by the generation of mechanical force, and possibly by the excitation likewise of electricity and chemical affinity. In the phenomena of the conversion of a solid into a liquid, and a liquid into an æriform body, a change produced by the separation of the particles of matter through the agency of heat, we have ample evidence of the power of force-heat to originate motion.

That heat produces light is a fact so obvious to all, it would be merely superfluous to adduce anything in proof. Indeed, there is so marked an analogy between them, it becomes a question whether they are not different modifications of the same force, rather than two distinct forces cor-relative to each other.

The operation of heat in the excitation of electricity, was first noticed in such minerals as tourmaline and boracite, in which the electrical equilibrium is disturbed by the application of heat; but Prof. Seebeck, of Berlin, discovered, in the year 1821, that when two different metals, as bismuth and antimony—platina and iron, or copper and mercury, are soldered together, and heat applied at the point of junction, a current of electricity is immediately developed. Prof. Cumming, of Cambridge,

Prideaux, Becquerel, and other philosophers, have followed Seebeck in his investigations, and we now know, that for the production of thermo-electric currents it is not requisite that the metals should be dissimilar; and that the intensity of the current is greatly augmented by combining, as in the Voltaic pile, a series of **alternations** of two metals, as platina and zinc, or bismuth and copper. **The most delicate thermoscope known**, consists of a bundle of 36 short and slender bars of bismuth and antimony, having their alternate ends soldered together. The mere approximation of the hand to such a bundle, if one of the faces be blackened, excites a very perceptible current of electricity.

Heat, either directly or indirectly, plays a very important part in the production of chemical affinity. Many substances will remain in close contact to each other without evincing the slightest disposition to unite, so long as their affinities be not brought into operation by the intervention of heat, or some other force. Thus, the two gases, hydrogen and oxygen, will remain diffused through each other in the same vessel, maintaining a perfect distinctness at ordinary temperatures; but, if any substance in a state of ignition be introduced, their affinities are at once brought into play, chemical union takes place, and the formation of water is the result. In a communication to the Royal Society, Prof. Grove has shewn that water may be resolved into its constituent gases, by plunging into it an intensely ignited piece of platinum, iridium or silica; and Mr. Robertson has found that the temperature at which this is effected is —2386 degrees.

That heat is cor-relatively excited by the other forces can be easily shewn. We have already adduced sufficient proof of the power of motion to originate heat. Chemical affinity, when excited, is invariably attended by the evolution of caloric; or, in other words, is succeeded by the force heat; as when sulphuric acid and water are mixed together, and whilst coal or wood is burning. By transmitting a sufficiently powerful discharge of electricity through a piece of fine wire, it will undergo combustion; and, according to the experiments of Sir Snow Harris, metals are heated by the electric discharge, in a distinct ratio to their conducting powers. Light commonly produces heat, and so forth.

We might thus take up the phenomena of magnetism, light, electricity, &c., and point out instances in which these forces operate in producing, or are succeeded by, the several other physical forces. Enough, however, has been said to give our readers an insight into the nature of the relations of different modes of force, and the peculiarities of the views propounded by the originators of the Cor-relation Theory.

We shall now examine into the relations existing between the physical and vital forces. **Vital forces may be defined, simply:—Force**

which operate in producing the various phenomena peculiar to organized or living beings, and which cannot be referred solely to the agency of the physical forces. These phenomena are growth, development, assimilation, sensation, voluntary motion, &c. All organized bodies, no matter how complex soever they may be in their structure, have their origin in nucleated cells. There is no appreciable difference between the germ of the lowest vegetable and that of the highest animal. The simple cell may be regarded as the type of organization; and in the development and multiplication of cells, we have an exhibition of vital action in its simplest and least complicated form. In the development of a cell, the germ, by the exercise of that power to which the term vital has been applied, attracts to itself the nutrient particles of the substances by which it is surrounded, elaborates them into certain proximate principles, by the incorporation of which into its own structure, it increases in size. Shortly, the cell wall, a transparent, homogeneous membrane; and the cavity, containing a fluid either limpid and transparent, or varying in tint as the case may be, become apparent. The process of assimilation goes on—the cell enlarges, and the fluid in its interior, heretofore apparently homogeneous, now exhibits a finely granular appearance. The minute granules aggregate and form molecules of a larger size, which adhere to the side of the cell wall, from which, however, they soon become separated. After a time, rupture of the cell-wall takes place, the numerous molecules are set free, and become in their turn the elaborators of new cells. In some instances, however, complete development of cells occurs within the parent cell.

If we look now to the vegetable germ, we find that, to exhibit the series of phenomena which we have mentioned, certain conditions are absolutely demanded. These are, that the germ be exposed to the influences of Heat, Light and Moisture. The flowerless plants belonging to the fresh water Algæ, being composed of cells which have an independent existence, afford the best study of cell-life, and the effects of extraneous influences in determining and continuing such life. The germ of the *Hematococcus binalis*, or any other of the Algæ, when exposed to light, at a certain temperature, manifests vital activity by absorbing from the water in which it is situated carbon, nitrogen, hydrogen and oxygen; and by the arrangement of these constituents into combinations, which it assimilates into its own structure, and which serve, not only for its own sustentation, but also, for the production of new cells. The carbon is obtained from carbonic acid, and the nitrogen from ammonia; which chemical compounds are destroyed by the vital power operating through the material of the germ, and subsequently of

the entire cell. Here, then, we have in the conditions necessary to the germination and growth of a vegetable, an exhibition of the very important part which physical forces have in the production or origination of the vital force. Omit the stimuli, as they have been heretofore called, of light and heat, and no manifestation of vitality will take place; or, as the advocates of the correlation theory would say, the forces, light and heat, are succeeded in the germ by vital force, and in the absence of the former there can be no manifestation of the latter. Heat and light received the name of stimuli from the supposition that in seeds of various kinds, vitality existed in a *latent* or *dormant* condition. This supposition being based on the fact, that seeds may be kept for an indefinite period, even for ages, without evincing any signs of vitality, and yet germinate when placed in favorable circumstances, and acted on by light and heat. In the *Jardin des Plantes*, of Paris, seeds obtained from the cerements of Egyptian mummies, which must have lain there for thousands of years, germinated when placed in the soil, and ultimately yielded increase. And after the great fire in London, in 1666, so luxuriant was the growth of a cruciferous plant, the *Sisymbrium Iris*, of Linnæus, that almost the entire surface of the burnt district was covered with them.

According to the new ideas, however, there can be no such thing as "dormant life," or "latent vitality." As we can judge of the presence of life only by observing *changes* to ensue in the body observed, *change* becomes an essential in our idea of life. To talk, then, of *dormant life* in a seed, is to say, that changes are going on in a body, where no change is taking place, which to say the least, is a very palpable contradiction. For the manifestation of vital action in seeds or plants, certain determinate physical conditions are required. So long as these conditions remained unaltered, there will exist *the proper and necessary substance* for vital force to manifest itself through, when originated by the operation of the forces, heat and light; and the *only* form of matter in which these forces can be succeeded by vital force. In the seeds, then, which have germinated after lying inactive during the lapse of some centuries, there is not a waking up of something already existing in the seed; but there is the development of vital force, by the action of heat, light, and so forth, the necessary physical conditions having remained undisturbed for so long a period in the seed.

(Conclusion in our next.)

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VIII.—*On the Surgical Treatment of Morbid Growths within the Larynx, illustrated by an original case, and statistical observations, elucidating their nature and form* By GURDON BUCK, M.D., Surgeon to the New York Hospital. Pp. 28.

The contents of this pamphlet formed the subject of a communication presented to the American Medical Association, at its session of 1853. The case, that of a female, aged 51, which forms the basis of Dr. Buck's remarks, exhibited the following symptoms:—"She was suffering from obstruction of the larynx, attended with great dyspnœa and complete loss of voice. Her aspect, as she was seated in her chair, was that of a person in perfect health, with a florid countenance and rather corpulent condition of body. Her breathing was sonorous and labored; inspiration evidently requiring greater effort than expiration; her voice could not be raised above a whisper. She was unable to perform the act of snuffling or to expel air through the nostrils, which was a source of very great annoyance to her. Deglutition was easy, except when she attempted to swallow liquids rapidly, and then the dyspnœa was increased. The larynx was the seat to which all her trouble was referred. Sometimes she described her sensations as if a lump obstructed her throat; sometimes as if a ruffle rose and fell alternately in the larynx; at other times the account she gave of her sensations was vague. The dyspnœa was aggravated by whatever tended to produce excitement, and the approach of evening exerted a marked influence in causing an exacerbation of the symptoms. In the recumbent position she always required her head to be raised by extra pillows. Hoarseness, which was the earliest symptom observed on the onset of this ailment, had gradually resulted in complete extinction of the voice. For more than a year the aphonia had persisted, unaccompanied by dyspnœa.

"On inspection, the epiglottis was ascertained to be free from swelling, and in a healthy condition.

"Exploration with the finger could detect no swelling or other morbid change at the orifice of the larynx. The fauces and pharynx were red and congested, but not swollen. Compression of the larynx externally augmented the dyspnœa, and produced a very disagreeable feeling. The patient had always enjoyed good health previously, and still continued to do so, with the exception of her local ailment.

"A strong solution of nitrate of silver had been applied to the larynx, and irritants externally to the front of the neck, in conjunction with other treatment, but without any benefit."

Dr. Buck, having diagnosed morbid growths within the larynx, proposed an operation for their removal. This was at first declined, but the dyspnœa increasing in intensity and suffocation becoming imminent,

the patient finally consented. The operation was performed, April 30th, 1851, in the following manner:—"The patient was seated before a window in a low arm-chair, with the head thrown back, and the front legs of the chair raised about three inches upon blocks. The neck being short and fleshy, the notch of the thyroid cartilage could only be obscurely distinguished by the touch. From this point an incision of four inches in length was made, along the median line downwards, dividing the skin and subjacent tissues, till the cartilages of the larynx and the three upper rings of the trachea were laid bare—the latter being effected partly by lacerating, and partly by pushing downwards the isthmus of the thyroid body with the handle of the scalpel. After the hemorrhage had entirely ceased, the crico-thyroid membrane was incised, and the incision continued upwards in the mesian line with the utmost precision through the whole extent of the thyroid cartilage; at the moment of penetrating the larynx, air rushed in with a whizzing sound, and the voice became extinct. The thyroid cartilage being ossified, the division was made with strong scissors, curved edgewise. The section was then continued downwards through the cricoid cartilage, and the exposed rings of the trachea. The sides of the larynx were stretched apart with retractors, and brought into view its cavity, lined by growths attached to its lateral walls.

"On the left side, two or three granules, half the size of grains of rice, hung pendulous from thread-like stalks. The remainder of the tumour was attached by a broad base, partly concealing the ventricle, and extending higher up upon the wall of the laryngeal cavity. The entire extent of the growth could not be traced, owing to the deep situation of the larynx, and the limited extent to which the sides could be separated from each other. Several portions of the tumour were snipped away, and, in cutting them, their substance appeared to be of a firm consistence, not unlike condylomata.

"The hemorrhage from these incisions was of short duration, and was mostly prevented from flowing into the trachea by stuffing pieces of sponge, held by the forceps, into the open larynx, and keeping them there for a short time. A good deal of time was necessarily consumed in accomplishing this partial removal of the tumours, and the patient was much fatigued by the coughing excited by the flow of blood into the trachea. The flattened form of the tumours, and the breadth of their attachment, together with the depth of their situations, and the narrowness of the space within which the manipulations had to be performed, proved to be insurmountable difficulties, rendering the entire removal of the disease impracticable. It was therefore decided to suspend farther attempts for the present. A portion of the two upper rings of the trā-



chea was removed on either side, in order to lodge the trachea-tube, which was introduced and secured in place by a tape passed round the neck. By this arrangement, respiration was rendered perfectly easy and comfortable. The patient displayed the most remarkable courage and firmness throughout the whole of this very difficult and protracted operation. When visited the same evening, considerable oozing of blood was found to have taken place from the lower angle of the wound, and the viscid secretion, expectorated through the tube, was also stained with blood. Her respiration continued easy."

The relief obtained from the operation was great, but not permanent. A second and third operation were performed, and the patient died on the 3d August, 1852.

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XIX.—*The Principles of Animal and Vegetable Physiology*: a popular Treatise on the functions, and phenomena of organic life. By J. STEVENSON BUSHNAN, M.D., Physician to the Metropolitan Free Hospital, &c. With One Hundred and Two Illustrations on Wood. Philadelphia: Blanchard & Lea. Montreal: B. Dawson. Pp. 234.

This book ends with these words—"Truly did Galen say—'The study of physiology is a hymn in honor of the Deity.'" This is assigning to Galen what he never thought of: this man—who, for 1300 years, held back medical opinion; on a memorable occasion, after having brought to a close an undertaking in which he had been engaged, and while reflecting over what he had observed, burst out into a most truthful strain, in which his feelings were well expressed—an anatomical description was the most fitting hymn man could utter in adoration of his Creator. However, perhaps, the author thinks about that time there was so little difference between the two sciences, that when one was mentioned the other might be understood to be meant! We are not to be supposed as by any means objecting to the study of physiology being considered as equally fitting to incite our veneration, humility, and thankfulness, as the description of anatomy, but we only wish to set the author right concerning a matter of history. We most fully feel the truth of the character given to the Science in the above quotation, and we think it ought to be a sufficient inducement for persons generally to make themselves masters of it. Our lay friends can have no better little guide than Dr. B.'s principles.

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## CLINICAL LECTURE.

*Clinical Lecture on Fever-Hepatic Complications.* By Dr. GORDON,  
Physician to Hardwicke Fever Hospital.

(*Dublin Hospital Gazette.*)

All writers on hepatitis seem agreed in enumerating it as among the consequences of fever, intermittent or continued.

Perhaps the most frequent affection of the liver met with, as a concomitant or consequence of fever, is general congestion of the organ. Its immediate cause most usually is, some grievous error of diet, and frequently both of quantity and quality. The regulation of a patient's diet, when recovering from fever, is a matter of the greatest importance: the cravings for food are often most inordinate, and people otherwise most rational are often unable to control them. As a general rule, some form of farinaceous food may be given early in the morning, and repeated every four hours through the day. When meat is allowed, it ought to be given not later than one or two o'clock, and the interval between it and the next meal should be somewhat longer than usual. Whatever exercise the patient is allowed to take, should not be taken soon after this meal; he should rather be encouraged to absolute rest or repose. Undue exercise after a hearty meal, as well as over-distention or stimulation of the stomach, induces a congested state of the liver, which is recognized by the following symptoms:—great weight and fullness in the right hypochondriac and epigastric region, with some tenderness or pressure; alternations of nausea and desire for food; thirst, yet a feeling of oppression or fulness produced even by a drink of water, but much more by wine or malt liquors, particularly if in a state of effervescence; another symptom almost invariably present is, enlargement and distention of the hæmorrhoidal veins. Of course we seldom have an opportunity of witnessing the actual condition of the liver in this affection, but we have no reason to suppose it to be different from what we observe in the ordinary forms of congestion of the liver, from disease of the heart, or other cause, preventing or delaying the return of its venous blood.

Great relief is usually obtained from the recumbent posture, and the application of a few leeches to the enlarged hæmorrhoidal veins, which may be repeated as often as is necessary. The bowels are usually constipated, and are best relieved by a few grains of blue pill and dried soda at night, followed by small doses of sulphate of magnesia in the morning, dissolved in a large quantity of boiling water. A wine glass full of bitter infusion, as quassia or columba, with orange-peel, about half an hour before dinner, will generally be found of great advantage. Hepatic congestion, if neglected, is very likely to terminate in chronic hepatitis.

Organic lesions of the liver are a very rare complication of the fever in this country. We have seen abscesses of the liver in this hospital sufficiently often to require its enumeration among these complications or sequela. They occur under three different circumstances:—

First.—As an immediate consequence of phlebotic inflammation

Sophia West, aged 28, a servant, was admitted into the Hardwicke Hospital, January 18th. After washing the clothes of a fever patient, and the room in which he had slept, she was attacked with rigors, and the usual premonitory symptoms of fever. She became maculated, and the general febrile symptoms were of a very low type. On the fourteenth day she complained of diarrhœa and great debility. On the fifteenth, pains through all her body, referred principally to the joints.

Sixteenth day.—Diarrhœa continues; tongue brown and dry; pulse 120, small.

Eighteenth day.—Pain on moving her arms or legs greatly increased.

Nineteenth day.—Inflammatory patches of a darkish red hue have appeared on the occiput, right elbow, wrist, and hand; pulse irregular, very weak; diarrhœa has ceased.

Twentieth day.—Patient delirious through the night; the inflammatory patches appear of a paler red; additional ones have appeared on the left elbow and wrist, and on the sacrum; tongue and teeth black with sordes. Patient lies apparently insensible, with her eyes closed.

Twenty-first day.—Pulse 132, very weak, not so irregular; excessive insensibility.

Twenty-second day.—Died at 10 A.M.

In the several inflamed joints was found thin sero-purulent matter, which existed also in the sheaths of the extensor tendons of both fore-arms. The synovial membrane of the different joints was inflamed; the lower lobe of the left lung was solidified, it was of a very dark colour, apparently from sanguineous engorgement, but was hepatized, and a section of it sunk in water. The liver was somewhat enlarged and congested; numerous small abscesses were found in its surface and in its interior, they were very minute, surrounded by a hardened base, and not unlike softening tubercles; in several of them pus could be distinctly traced into a communicating vein. Abscesses in the liver, as a consequence of suppurative phlebitis, are of very frequent occurrence; when arising in the course of fever, they seem to differ from the ordinary traumatic form only in being more rapid in their progress, and the patient being less sensible of pain or any other annoyance in this viscus.

Secondly.—With regard to abscess of the liver as a consequence of the typhoid inflammation and ulceration of follicular enteritis, we must agree with Chomel, who observes upon it, as an extraordinary fact, how rarely abscesses of the liver are met with in fever, considering the great frequency of intestinal ulcerations. Budd also remarks:—"I have never seen abscess of the liver noticed in conjunction with ulcerated intestine in fatal cases of typhoid fever. This fact is very striking, when we consider how prevalent and fatal typhoid fever is; how generally it is attended with extensive ulceration of the bowels; and how attentively all the morbid appearances in this disease have been observed and recorded of late years in this country and in France."

One such case, however, occurred in this hospital not very long since. Mary Ryan, a servant, æt. 29, was sent from Jervis-street Hospital to the Hardwicke, on the 11th of March, 1853, the fourteenth day of her fever. The chest and abdomen were covered with a raised lenticular eruption; she was greatly prostrated; pulse 124; respiration 30; slight

abdominal tenderness, confined to right iliac fossa; great thirst. The fever was complicated with bronchitis of the smaller bronchial tubes. On the twenty-eighth day some diarrhoea set in, her tongue became dry and black; she lost all appetite for drink; the diarrhoea was controlled, but returned. She continued to sink, and died on April 3rd, the thirty-seventh day of her illness.

The lungs presented the usual anatomical evidences of capillary bronchitis; they were not otherwise diseased.

The heart, spleen, and kidneys were in the normal state of health.

The liver appeared large; it was greatly softened, particularly the right lobe, which contained a large abscess, filled with sero-purulent matter, not encysted; it might have held a hen egg; the hepatic substance around it was almost in a state of putrilage. The stomach, upper part of the intestinal canal, and the large intestine, were not diseased, but the ilium showed general vascularity and extensive ulceration. Both orders of glands were greatly developed, and there were several oblong patches of ulceration, all, however, more or less superficial.

There is no morbid condition of the liver more frequently found in post mortem examinations of patients who have died of fever than softening or remollissement of this organ. It can scarcely be called a complication, for it does not seem to possess any peculiar symptoms. Louis found it in nearly one-half of his recorded examinations. Its termination in abscess is, however, exceedingly rare. What influence the glandular ulceration of the small intestine may have on it, we are not prepared to say; but it is beyond doubt, that abscess of the liver is produced by a dysenteric inflammation of the small intestine, as well as of the large. A well-marked case of this kind is recorded in the London Pathological Transactions, by Dr. Hare.—(Vide Lon. Path. Trans., vol. iii., p. 349.)

But while we acknowledge abscess of the liver to be a rare complication of follicular enteritis, we have not unfrequently seen it among the sequelæ of our ordinary typhus or maculated fever. So that we may reckon—

Thirdly—Abscess of the liver as a complication of typhus fever, when there is no ulceration of the intestine to cause it, and unconnected with phlebitic inflammation.

Margaret Bradley, æt. 18, was admitted into the Hardwicke Hospital, April 23rd, 1853, in an advanced state of typhus fever. She was extensively maculated; her pulse 124, very feeble; tongue brown and dry; complained much of cough and weight on the chest. She had the usual evidences of bronchitis of the large bronchial tubes.

On the fifteenth day the maculæ had almost disappeared, the bronchitis had altogether subsided, and the usual signs of amendment were progressing, when she suddenly began to complain of chilliness, rigors, pain in the abdomen, nausea, and loss of appetite; refused beef-tea, wine, and other nutriment which she had been taking, and of course became rapidly debilitated.

On the 5th of May, she was suddenly attacked with pain in the abdomen, referred to the umbilicus, and followed by diarrhoea. The discharges were frequent, consisted of purulent matter mixed with blood, and were passed without any pain.

**Turpentine fomentations to the abdomen.**

**Pills of acetate of lead and opium; one every three hours.**

May 7th, diarrhœa controlled; pain in the abdomen increased; nausea, occasional vomiting, alternations of chills and heat, followed by perspiration.

**Sulphuric acid. min. xv. ter in die.**

8th.—Perspired profusely last night.

9th.—Diarrhœa returned; comes on in paroxysms, without any pain; four or five stools in rapid succession, then a long interval, with frequent fainting sensations, and cold clammy feel of skin.

10th.—Frequent chills, followed by great flushing of the face, and general morbid heat.

11th.—Oedema of lower extremities; profuse cold perspiration; patient is daily becoming weaker. She gradually sunk, and died on May 12th.

A careful post mortem examination showed that all the morbid phenomena were confined to the abdominal viscera. The liver was large, of a bright red colour; a section of it showed the right lobe to be extensively studded with abscesses of various sizes. The largest was two inches long, with a diameter of one inch: there were four or five about this size, the remainder were very small. They all contained reddish purulent matter, but several seemed only half filled; there were many of them close to the convex surface, yet the capsule was scarcely even rendered opaque; there were none of the anatomical evidences of inflammation of the serous membrane. One or two abscesses appeared on the point of giving way; they were gradually acuminating by a small yellow pustule, and the hepatic surface around was exceedingly dark, forming a remarkable contrast with the general bright red appearance of the liver; these were not encysted, but the edges of many of them were very sharp and defined. The colon was exceedingly vascular, but not ulcerated; there were one or two abrasions of the mucous membrane, but there was no thickening or elevation of the mucous membrane around them, nor was the submucous cellular tissue anywhere exposed. There was matter lying in the colon similar to what was found in the abscesses of the liver, and similar also to the diarrhœal discharges of the patient.—(Museum, Richmond Hospital.)

The constitutional symptoms in this case left no room for doubt as to the existence of an internal abscess; and the strong presumption was that the liver was the seat of its existence, although some very decided symptoms were absent. The abdominal pain and tenderness were general, not confined to the hepatic region; there was no pain in the shoulder—no tension or rigidity of either or both of the recti abdominal muscles; there was no jaundice—no fullness or projecting tumour in any part of the abdomen; in fact, there was not such a collection of symptoms as to warrant making any preliminary incision or eschar of any kind over the liver. The degree of inflammation of the colon which existed is worthy of observation. We cannot imagine, for a moment, that the enteric complication was the first organic mischief which occurred in this case. The patient was, for several days, complaining of nausea, rigors, and other symptoms of internal suppuration, when, on the 5th of May, diarrhœa suddenly set in. The character of this diarrhœa was very pecu-

diar, and it preserved these peculiarities throughout :—it came on suddenly after nausea, or an increased sense of fullness in the abdomen; it consisted of four or five evacuations passed in rapid succession, and then a perfect interval of rest, with great increase of debility, but relief to all the other symptoms; it was, in fact, a true enteric catarrh, and was analogous to the paroxysmal cough, which occurs in the same disease, or in empyema, when a vicarious secretion of purulent matter is effected by means of the bronchial mucous membrane. The nature of the discharges was also peculiar: with these paroxysmal evacuations, there was seldom any feculent matter passed, but a quantity of reddish, seropurulent matter, of a horribly offensive odour. The case, then, was clearly one of typhus fever, immediately succeeded by abscesses of the liver, in which, as in the cases detailed by Dr. Mount, in the Report of the Regimental Hospital, Bangalore,\* there was a vicarious discharge of purulent matter from the mucous surface of the colon; the irritating nature of the matter thus discharged caused the superficial ulceration of the mucous membrane which was observed.

## THERAPEUTICAL RECORD.

(*Nashville Journal of Medicine and Surgery.*)

**Prevention of Cholera.**—Forewarned, forearmed! Observe cleanliness! Unhealthy articles of diet, unripe fruit, exposure to the weather, and immoderate labor should be avoided at all times, but more particularly when cholera prevails. Take no nostrums—take a doctor. Medicines, mis-called cholera preventives! are cholera incentives!—*N. O. Med. and Sur. Jour.*

**Chronic Urticaria.**—A severe case of this eruptive disease was lately successfully treated by Mr. Startin, at the Hospital for Skin Diseases, London, in the following manner. R. Quin. disulph., gr. xij.; am. sesquicarb., ʒj.; magnes. carb. ʒss.; aq. pur. ʒviiij.—Ft. mist. A table-spoonful to be taken thrice daily.

The quinine in this formula is undissolved, and is held in suspension by the magnesia. Mr. Startin advises the use of dilute nitric acid to relieve the itching as being equally efficacious as the hydrocyanic acid, and much less expensive.—*Virg. Med. and Surg. Jour.*

**Lepus—treated with Mercury and Cod Liver Oil.**—This obstinate disease has been treated successfully by the London medical profession, with combinations of mercury and cod liver oil in small doses often repeated.

The plan of counteracting the depressing effects of a mercurial course for the cure of syphilis in cachectic constitutions, by combining the cod liver oil in moderate quantities, is worthy of notice.—*Ib.*

**Scrofula—Iodide of Potash combined with Carb. Ammoniac.**—An opinion prevails at Guy's Hospital, that the efficiency of iodide of potas-

sium is much increased by combining it with the carbonate of ammonia. The proportions usually observed are two to three grains of the iodide, with four or five of the ammonia.

The ammonia acts as a gentle stimulant to the stomach, preventing the iodide from disintegrating; also, by the chemical decomposition itself being changed to nitric acid, and then by combination with the base of the salt, liberating the iodide in its free form.—*Ib.*

*Treatment of Vascular Opacity of the Cornea.*—Mr. Critchett, of the Royal Ophthalmic Hospital, recommends the use of setons and other permanent issues in vascular opacity of the cornea of long standing, and in subjects of cachectic condition. He declares the use of mercurials, depressants, frequent leeching, &c., only aggravates the disease.

His treatment consists in making an issue in each temple and keeping it open for some months, at the same time allowing a generous diet, and even exhibiting tonics.—*Ib.*

*Transparent Cement.*—According to Leuher's *Belgique Industrielle*, this may be prepared by dissolving 75 parts of caoutchouc in 60 parts of chloroform, and adding to the solution 15 parts of mastic.—*Ib.*

*Erysipelas—its best External Application.*—The *Boston Med. and Surg. Journal* thinks that Cyanuret of Potassium in from half to two drachms, to one pint of water, is a most useful, if not the very best, local application for erysipelas.

*To Remove Lunar Caustic Stains on the Skin, Linen, &c.*—Take 1 drachm of cyanuret of potash to 1 ounce of water, and wet the spots. They will be removed in a few minutes by this solution.

## The Medical Chronicle.

LICET OMNIBUS, LICET NOBIS DIGNITATEM ARTIS MEDICÆ TUEM.

### THE LAST MEDICAL SCHOOL BILL.

Shortly after the incorporation of the "Montreal School of Medicine and Surgery," that body saw fit to present their students, for the sum of fifteen dollars, with a parchment document, which they were pleased to term "a diploma." This procedure, if not in direct contravention to the requirements of the act of incorporation, was certainly not provided for in the bill as it eventually passed both Houses of the Legislature. The power, however, to grant diplomas, was sought by the framers of the original bill; and had not the Legislative Council arrested it in its passage, and modified a clause which very modestly *assumed* the right of the corporation to issue "diplomas, certificates or testimonials," they would have had, even from the commencement, a legal right to do so. During the present session of Parliament, they have made another effort

to obtain this privilege. The following bill, entitled—"An act to amend the act incorporating the Montreal School of Medicine and Surgery," was recently brought before the House by Dr. Valois, and ordered to be read a second time:—

Whereas in consideration of the great usefulness and high character of the Montreal School of Medicine and Surgery, it is expedient to amend the Act passed in the eighth year of Her Majesty's reign, and intitled, "An Act to incorporate the Montreal School of Medicine and Surgery;" be it enacted, &c., as follows:—

I. For and notwithstanding anything in the said act, no member of the Corporation by the said act established, shall be considered as having ceased to be a member thereof by reason of his having become a permanent resident out of the city of Montreal, nor shall it be necessary to appoint another person in the stead of such member; and the said corporation may appoint so many professors for instruction in the different branches of medical science in the said school, not being at any time less than eight in number, as they shall deem expedient.

II. The sixth section of the said act shall be and the same is hereby repealed; and any student in medicine who shall have attended courses of lectures in the said School of Medicine and Surgery, on the various branches of medical science mentioned in the twelfth section of the act passed in the session held in the tenth and eleventh years of Her Majesty's reign, and intitled: "An act to incorporate the members of the Medical Profession in Lower Canada, and to regulate the study and practice of physic therein," shall, after an examination, which shall be public before the professors of the said School of Medicine and Surgery (five of whom shall form a quorum for holding the said examination) receive, if he be deemed duly qualified, a diploma from the said School of Medicine and Surgery, and thereupon be entitled to receive a license from the Provincial Medical Board without being required to undergo any examination before the said Board; anything in the act last above mentioned, or in any other act or law to the contrary notwithstanding.

The objections to the above bill are so well set forth in a petition, numerously signed by the profession in Montreal, and presented in opposition, we give it in preference to any additional remarks of our own:—

#### PETITION.

We, the undersigned Physicians, practising in the City of Montreal, interested in the standing of the medical profession, beg leave to draw the attention of your Honorable House to a bill, recently introduced by Dr. Valois, entitled an act to amend the act incorporating the School of Medicine and Surgery of Montreal; and against which we earnestly urge the following reasons for the consideration of your Honorable House.

1st, That the effect of the passing of such a bill would be to confer on the School of Medicine, and all others that are or may be similarly established and incorporated, privileges restricted to universities whose curriculum is invariably far superior.

2nd, That while the privilege of conferring degrees ad practicum



is guarded against abuse in universities by the supervision of a governing body, no such responsibility and check exists in ordinary incorporated schools.

3rd, That such a measure would inevitably tend to lower the standard of medical education, by unduly increasing the number of licensing bodies.

4th, That the only ostensible reason for obtaining this power to be specially granted to that school, on the plea of its being a French Canadian school no longer exists, inasmuch as the Laval University now affords to students speaking the French language all the privileges of University degrees.

5th, That the practical effect of second clause of proposed bill would be to enable a student to obtain a diploma to practise after two sessions attendance on lectures. That these sessions may be completed in 18 months, and that the law regulating the practice of medicine, 10 and 11 Victoria, chap. 26, which renders four years' study compulsory, would thereby be evaded.

Wherefore your petitioners humbly pray that your Honorable House will not sanction this bill, &c. &c.

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#### MEDICAL HEROISM.

Men have long been accustomed to associate all ideas of heroism with exhibitions of mere animal courage. To plunge recklessly into the melee of deadly strife, and, amid the maddening excitements of roar of cannon, charge of cavalry, shouts of contention, and groans of the dying, to perform prodigies of valor by freely destroying human life, is to manifest qualities which nations and individuals delight to honor in their possessor. Thanks from the associated wisdom of a "grateful nation"—the highest titles and positions in the land—public ovations and a name in history, wait upon the successful military hero, the legalized, highly lauded, and intensely admired life-destroyer of the nineteenth century. War—war—"our voice," in the present day, "is still for war." And so will it ever be, as long as civilized nations, recreant to that Christianity which inculcates "peace on earth and good will to men," unite in placing the laurel on the blood-stained brow of him who wades deepest in the life-current of his fellows. The causes of this blind worship of glory, falsely called, are to be found in that innate covetousness, greed of gain, and desire for pre-eminence, which impel men, individually and collectively as nations, to wage destruction each on the other. Essentially barbaric in their nature, these influences are most potent among savage and semi-civilized communities. And there is no more certain evidence of a nation's advance in all that is ennobling to humanity, than a popular and earnest exhibition of a wish to live peaceably with all men.

Philosophers and philanthropists—the men of mind and men of heart—have, at all ages, however, recognized a species of heroism of vastly

higher character; but which the public generally have held in light esteem, and which has been scorned and laughed at by the mere mob, the *canaille* of the day. This heroism is not demonstrative—it has no bold and glaring points to arrest the attention of the beholder—it does not dazzle his eyes by its brilliancy—it is not accompanied by pomp and parade, the sound of the trumpet, the martial roll of the drum, the neighing of the war-horse—it is not clamorous for distinction, is not heard afar off, nor does it boldly intrude on the notice. Quietly, unobtrusively and perseveringly it pursues its course. Of such nature is that which we call Medical Heroism. When death stalks abroad in the land—when the pestilential breath of an epidemic breathes destruction in every household—when the wail of bereaved ones strikes fearfully on the ear—when the hearts of strong men, who would in time of excitement rush even to the cannon's mouth, fail them, and terror is depicted in every countenance, who is it that remains calm and unmoved amid all the dread and turmoil—that speaks words of encouragement and comfort to the fearful and downcast—that cheerfully toils day and night to relieve suffering humanity—who is it, in a word, that takes his life in his hand, and when friends forsake the couch of the plague-stricken one, fearlessly attends to his every want? Who? THE MEDICAL HERO. Oh! it is a noble sight, one that might engage the attention and command the admiration of beings superior to man, that of a physician engaged in the duties of his profession during the prevalence of a fatal epidemic. How the people, leaning on his every word, eagerly scan his countenance, and bless him for his unwearied care. Danger past, however, his arduous and benevolent efforts are all forgotten; and if, perchance, he should fall a victim to over-exertion, a martyr to a conscientious discharge of his duties, his very memory fades in a few brief days, from the recollection of those persons whose lives he has saved. No monumental marble is reared to stand the record of a people's sorrow for his death; no "storied urn" tells of his acts of bravery and untimely end; the historian's pen hands not his name down to posterity. Such is the ingratitude of man, and such the estimate he holds of *true heroism*.

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#### SEMI-ANNUAL MEETING OF THE COLLEGE OF PHYSICIANS AND SURGEONS, L.C.

Quebec, October 19, 1854.

The semi-annual meeting of the Board of Governors of the College of Physicians and Surgeons of Lower Canada was held this day in the City of Quebec. The following members were present:—

Dr. Holmes, President, in the chair; Drs. Frémont, Morrin, Valois, Peltier, Marmette, Boudreau, Weillbrenner, Michaud, Marsden, Sabou-

rin, Munro, Bibaud, Foster, Jones, Sewell, Campbell, Russell, Jackson and Landry.

The minutes of the last meeting held in Montreal were read and approved.

The Secretary read a letter from Dr. Von Iffland, begging to be excused for non-attendance on account of professional duties keeping him at Grosse Isle.

The Secretary placed before the Board the Diplomas of Messrs. Sharpe, Martin, Payne and Scott.

Licenses were granted to — Sharpe, M. D., of Edinburgh, and to S. A. Scott, M. D. of McGill College.

A License was also granted to Mr. Payne, after an examination upon surgery, ; he having diplomas of medicine, pharmacy and midwifery.

Mr. Martin of Quebec petitioned the board for a license without examination. The Board was ready to grant the license if Mr. M. would conform with the requirements.

The Board proceeded to the election of two Governors, one for the District of Quebec, and one for the City of Montreal. Dr. Charest was elected for the District of Quebec, in the place of Dr. G. Miville De Chêne, deceased. Dr. Boyer was elected for the City of Montreal, in the place of Dr. Tavernier, who has left the Province.

The different Committees for examination were formed, and examinations proceeded with.

The following gentlemen, after giving satisfactory proofs of their medical education, received their licenses.

Messrs. Payne, A. M. P. Pepin, Ch. Buckley, J. B. O. Lanctot, Jacques Franchère.

The following were admitted to the study of medicine:—A. Petry, Ch. Faribault, A. Tétu, Drainville, D. Fontaine, Joseph Thérberge, A. Givois, M. Turcot, Plamondon.

Dr. J. F. Wolff of Quebec, leaving for Europe, petitioned the Board for a certificate to prove that he had received a diploma as member of the College, which he has lost. The certificate was immediately granted. The Board then adjourned.

J. E. J. LANDRY, Secretary, District of Quebec.

*Observations on Cholera.*—Dr. Carroll has published a pamphlet of 76 pages, in which he enters very fully on the subject of cholera, as it appeared in Cincinnati in 1849-50. In different parts he takes up various disputed questions, and argues his views with considerable ability. He is a contagionist, and trusts almost solely to calomel in the treatment of the disease.

*Circular of the Montreal School of Medicine and Surgery.*—From this circular we learn that the number of students who have attended lectures at the School since its incorporation in 1815, is 238. "Cette Ecole," says the corporation, offre à l'étudiant des avantages égaux, pour le moins, à ceux des autres institutions du même genre en ce pays; ce sont:—

"1o. L'Hôtel-Dieu, Hôpital qui contient deux cents lits. On y reçoit les maladies les plus variées. Le service Chirurgical y est très riche en cas de toute nature et les étudiants ont occasion souvent d'y voir des opérations faites avec toute l'habilité désirable. Tous les Médecins de l'Ecole y font un service régulier pendant trois mois à tour de rôle.

"2o. L'Hospice Ste. Thérèse, où les étudiants, pour une faible retribution en faveur du dit Hospice, sont instruits dans les manœuvres des Accouchements, et où tous les Médecins de l'Ecole sont, de droit, Médecins consultants.

"3o. La Prison de Montréal, où, grâce à notre dévoué Président, le Dr. Beaubien, Médecin de la Prison les élèves reçoivent ses instructions nombreuses et savantes. C'est un champ rarement offert, surtout dans ce pays, pour s'instruire sur la médecine légale, la folie, et enfin sur toutes les maladies auxquelles l'homme dépravé est exposé.

"Cette Ecole possède en outre un Musée contenant un grand nombre de pièces pathologiques et de préparations anatomiques d'une grande valeur et acquises à un prix élevé, expressément pour l'usage des élèves de l'Ecole.

"La Bibliothèque contient quelques ouvrages d'un grand prix."

*Sulphur in Rain.*—A correspondent of the St. Lawrence Republican, signing himself "Z. T. H.," gives the following views of the causation of this phenomenon:—

"It is well known that Sulphur is supplied to the atmosphere in a variety of ways, and floats there free, from its comparative levity in a state of minute division, or from its cohesive attraction with the particles of the atmosphere or other floating substances, or in a state of chemical affinity, in the form of certain gasses. In this last state it is abundantly supplied in the well known sulphuretted hydrogen. This gas is decomposable by electricity without change of volume, but the sulphur is thrown down. This is one way of accounting for the fall of sulphur during an electric storm. There is another way. The hydrogen gas having, in some manner, the sulphur in its embrace, mixes with oxygen gas, which is abundantly supplied by vegetation, in certain proportions, is struck by an electric current, and explosion is the result; the sulphur is thrown down, the concussion of the explosion makes the thunder, and the bases of the gasses, chemically united, re-appear in the form of falling rain."

*Incapable Officials.*—It would appear that the authorities in Dublin are as much given to talking, and as little capable of acting during an epidemic, as are those of Montreal. "We have had enough," says the

Dublin Medical Press, "of spouting, pamphleteering and reporting, and it is now high time for action; what that action should be, it is not now our object to suggest; all we urge is the necessity of immediate effectual operations. It is not by sending round policemen with blundering notices, threatening law, or circulating common-place exhortations to observe cleanly habits, or even by furnishing receipts for remedies to cure cholera, that official people are to be exonerated from responsibility." One would imagine that Dr. Jacob was speaking of Montreal, so exactly does he hit what was done in this city during the late epidemic of cholera.

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#### TO CORRESPONDENTS.

T. S., St. John's, New Brunswick. We consider his suggestions valuable. Editors, however, must allow a little latitude to their contributors; if they did not, they might divert the "disparaging remarks" to themselves.—Dr. Johnston. It is almost impossible to get at the exact ratio of mortality. Many physicians say they have saved 75 per cent. of the cases which fell into their hands. A few even report more favorably. The number of deaths was, we should think, on the average, fully 60 in every 100 seized. The treatment in most favor was that which included calomel along with other medicaments.—Dr. Dumouchelle will perceive that we have complied with his request.—Dr. Codd was the first medical gentleman, out of Montreal, who paid his subscription to our first volume. The Journal, we are happy to inform him, is to be a permanent publication.—Dr. Evans will receive our thanks for the warm interest he takes in the success of the Chronicle.—Dr. Billington. We should be surprised if our old friend and bench-mate were to act otherwise. We have despatched the missing numbers to his address.—Dr. Moore. The fault lies with the binder. We have sent another copy.—Dr. Vincent, Malbaie. We are obliged to him for his flattering opinion. It is our object to establish a Journal which shall represent the profession in Canada, without distinction.—Dr. H. Ridley. Five or ten of you can. The more the better.—Dr. Brinton. The current journalistic year commenced on June 1st, 1854, and will terminate on June 1st, 1855.—Mr. A. E. Ford will accept our thanks. A new subscriber is very acceptable.

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#### BOOKS RECEIVED FOR REVIEW.

Meigs on Childbed Fevers. 1854. Messrs. Blanchard & Lea.  
 Physician's Visiting List for 1855. Messrs. Lindsay & Blakiston.  
 Gibb on Hooping Cough. Henry Renshaw, London. From the Author.

Lee's Lectures on Syphilitic Infection and Syphilisation. From Dr. Gibb, London.

Smith's Oration, "the Improvements in modern Surgery," delivered before the Medical Society of London, at the eighty-first anniversary. From the Author.

Circular of the Montreal School of Medicine and Surgery.

Transactions of the Medical Society of the State of Pennsylvania. 1854.

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*Catalogues of Books.*—We have received Messrs. Blanchard & Lea's Illustrated Catalogue, for 1854. It contains samples of the illustrations to be found in many of the medical works recently issued by that celebrated publishing house. Highley's Student's Guide to the Class Books used at the London Schools of Medicine is also at hand. We shall be happy to lend them to any of our readers desirous of obtaining such information as they are designed to afford.

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### LONDON CORRESPONDENCE.—No. 3.

(Continued.)

*Spina Bifida*, a new plan of treatment by Mr. Paget.—From the peculiar nature of this affection, owing to the almost invariable implication of the spinal cord, or its nervous branches, as have been satisfactorily shown by Cruveilhier, Stafford, Prescott Hewitt and other writers, we cannot expect that any surgical operation will ever prove successful, unless in certain cases in which the nerves of the cord have no connection with the sac of the tumor, or where very few branches are in connection with it, or where the tumor may be so small that its opening of communication with the spinal canal is in accordance with the size of the tumor itself. Of 20 cases examined by Mr. Hewitt in various collections, only one was free from contact with the spinal nerves, and Cruveilhier again believes, from his dissections, that the connection between the tumor and the nerves is constant. This testimony, of course, invalidates very much against operative procedure. We shall find, however, on reference to the medical journals, that cases are occasionally cured, and many modes of treatment have been adopted with or without success; I may mention, for instance, pressure by means of a hollow pad or truss, puncturing the sac, ligature around the tumor, injections of iodine, removal, or any of these combined. Dr. Brainerd, of Chicago; U. S., cured 1 out of 4 cases by the iodine injections, and Velpeau and Chassaig-

nac have treated cases with perfect success by the same treatment, on the testimony of the *Gazette des Hôpitaux*. Puncture and pressure in certain cases offer the best, and, in fact, the only means of cure.

The following case presents some points of interest in being operated upon in a totally different manner from any case hitherto recorded, by Mr. Paget, on the 15th July, at Bartholomew's Hospital. The patient was a stout healthy child, 3 months old, with a tumor the size of a large foetal head, situated over the lower dorsal and upper lumbar vertebrae. A sub-cutaneous ligature was passed around the base of the tumor, with its two ends emerging from the superior margin of its base; these were fastened to two India rubber straps, which crossed the shoulders, and which were kept in position by a wide and long band of adhesive plaster passed around the chest. It appears that pressure upon the tumor does not in any way affect the cerebral function of the child, and Mr. Paget concludes from this and other reasons, that the opening of communication between the cyst and spinal cord most probably is very small, and therefore favorable to the operation. His object in applying the ligature under the skin, and fastening the ends to the India rubber straps, is to permit of the thread cutting its way out, and thus isolating the cyst, a result likely to happen in about 14 days. Should this succeed, he will be prepared to perform another operation for the removal of the cyst. Under any circumstances, this disease is almost always fatal, and the present operation is merely an experiment which suggested itself to his mind, and he believes it may prove successful. Should it not, we are still at liberty, he says, to try something else. The child was not put under the influence of chloroform, which I candidly think was a great omission.

Since the foregoing was written, the irritation and pain from the ligature became so great as to cause the child much suffering, which ended in death four days after the operation.

*The Cholera.*—Two months have elapsed since my last letter, and that time has been quite ample enough to develop the presence and progress of this fearful disease. The deaths for the last seven weeks, ending Saturday the 26th August, have been respectively 5, 26, 133, 399, 644, 729 and 847. Now these numbers may appear to be high, and to have rapidly increased; but they are less, comparatively, than those of 1843, and the per centage in the ratio of the population is very small. In comparison with Montreal, the disease has raged with greater virulence in that city than in London. Of the total number of 2783 deaths for the 7 weeks from cholera, 893 have occurred under 15 years of age, and as many as 1706 on the southern banks of the Thames, and low grounds of London. The deaths from diarrhœa and dysentery for the 7 weeks have been 968, which, added to the number from cholera, makes a total of 3751:

Now, without going into the treatment specially of either, I shall mention one or two plans which have been prominently brought before the public and profession, to arrest the premonitory symptoms particularly. *Sulphuric acid* has been recommended by Dr. Fuller, of St. George's Hospital, in cholera and choleraic diarrhoea; it has been successful in upwards of 1000 cases in his own and the practice of others. One ounce of dilute sulphuric acid of the Lond. Pharm. is added to eleven ounces of water, and of this mixture three tablespoonfuls should be given as a dose. Sometimes he adds a drachm or half a drachm of chloric ether to every alternate dose of the medicine; and occasionally at the outset of the attack, two grs. of opium in a pill, combined, it may be, with five grs. of calomel. After the first stage he never gives opium. In the ordinary choleraic diarrhoea three or four doses of the acid mixture, at intervals of half an hour, will generally be sufficient for a cure. In the confirmed cholera, a dose of the acid mixture is given every twenty minutes, until warmth returns to the extremities and color to the lips. The chloric ether added to each dose of the mixture is extremely serviceable, if tolerated by the stomach, and, as the symptoms subside, the medicine should be given at longer and longer intervals. Conjoined with the treatment, is a mustard poultice to the pit of the stomach, frictions to the extremities, and immediately after each act of vomiting a dose of the mixture. In cases of collapse, he commences the treatment by a brisk mustard emetic. Within Dr. Fuller's experience six doses have always proved sufficient to effect a cure, but he would not continue it beyond the eighth dose. This plan of treatment, I may observe, has been extensively used in the Baltic with success,

Mr. Henry Wakefield, Surgeon to the House of Correction, for thirty years, recommends the following:—*ʒss. sesquicarbonate of soda* in a wine glassful of strong *mint tea*, prepared from the fresh vegetable; or, if not at hand, one drop of the essential oil of peppermint diffused in the same quantity of water, and repeated every half hour. He has seldom required to use the dose more than three times without the sickness and diarrhoea being arrested. While under treatment the diet is beef-tea, well seasoned with salt and pepper, cocoa and arrowroot; nothing solid is allowed while the diarrhoea continues, even the bread is withheld. Out of 400 cases in 1851, not one was lost; and latterly, upwards of 150 in a population of 1500 persons were attacked, with the same results. The simplicity of this treatment is a strong recommendation in its favor.

Before concluding this letter, I should wish to draw the attention of the Governors of McGill College to what has always appeared to me a great omission in the Medical Faculty of the University. I allude to the want of those chairs on subjects necessary to enable a student to prepare himself for admission into the army,—these are, comparative anatomy,



or natural history, botany, practical chemistry, and natural philosophy. I addressed a memorial in relation to the first of these to the caput of the College, as far back as Feb. 1851. Now, at the present moment, if a graduate of McGill College, who has been educated in conformity with its statutes, presents himself in London before the Army Medical Board, the first thing that is done is to see if his courses of lectures are in accordance with what the Board requires; if not, he must go and complete them, at the same time taking his surgical diploma from one of the three Colleges of Surgeons. This may prove a matter of serious inconvenience and loss of time, more particularly during the existence of a state of war. The surgical diploma can be obtained immediately, but the courses of lectures will require months to complete, and botany is never entered upon in the winter season. These remarks may be better understood if I merely mention that Dr. A. M. Corbett, very shortly arrived from Canada, is in this position. I may be excused for giving his name, but as he is likely only one out of the many who may wish to enter the army hereafter, it really becomes a matter for the Governors of the University to seriously take into their consideration,—whether they will place it on the same footing in respect to the additional chairs as the schools of this country, or whether they will still allow their graduates to be the sufferers. With respect to the gentleman whose name I have mentioned, I shall observe, that if his courses of lectures had been complete, his appointment would have been almost immediately obtained.

G.

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## MEDICAL NEWS.

The distribution of prizes to the graduates of the Obstetrical School of Paris took place 24th June, under the direction of Paul Dubois. The first prize consisted in a gold medal; and was awarded to Miss Monnier, from the department of Seine-et-Oise.—A doctor out West writes to the editor of one of the western papers—"I do not care a fig for the good or bad opinion the Emperor *Nicolas*, Queen *Victory*, Jupiter, or *Satan*, may form of me. *I am I*, Dr. *Ricardo*, and I owe not a cent to nobody."—A family in East Cambridge, consisting of a man, his wife and two children, were taken suddenly ill on Wednesday of last week, with symptoms of cholera, and all died within forty-eight hours.—Dr. David B. Hawkes has been appointed post-master at Charlemont, Mass.—2350 persons have died from cholera in New York City the past season.—Dr. W. R. Wilde has been made surgeon oculist to the Queen in Dublin, out of respect for his literary merits.—Yellow fever is prevailing at Galveston, Texas, and many other of the large towns and cities of the South.—74 persons died on board the packet-ship *Harvest Queen*, on her passage from Liverpool to New York.—The Southern Christian Advocate says:—"At Auguste, Dr. Henry F. and Robert Campbell have established an infirmary for negroes. This institution is commendable for its benevolence, and will conduce to a more careful and thorough investigation of the diseases peculiar to the negro race."—It is complained that the wounded at Alma were denied the benefit of chloroform. 3500 were wounded, or six per cent. of the allied armies.—The want of medical assistance in the fleet before Sebastopol is described as deplorable. 1600 sick were sent back to Constantinople, the ship all but sinking from the cargo. Disconsolate doctors are described as going about wildly looking for water or beds for the sick. Many of the sick soldiers fell dead of fatigue.