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ORIGINAL COMMUNICATIONS

ART. XXVI.—*Therapeutical Contributions.* By WILLIAM WRIGHT, M.D., L.R.C.S.E., Professor of Materia Medica, McGill College. Physician to the Montreal General Hospital, &c.

ADIPOSE FOOD.*

Adipose food comprehends both fats and oils of the order called saponifiable or those which are convertible into soaps. The non-saponifiable, such as cholesterine, are excluded because they are not used dietetically. As the observations to be made apply equally to fats and oils, to save words I shall only employ the first name, so that when used it is meant to denote both substances.

COMPOSITION.—Fats are *bona fide* salts, having for their basis a peculiar substance called the oxid of lipyl. By boiling with the caustic alkalies, alkaline earths, or metallic oxida, fats are resolved into certain proximate principles, as stearin, margarin and olein, and these are composed of individual acids, stearic, oleic, and margarin, in combination with a sweet substance styled glycerin. From this latter circumstance glycerin was at one time called the basis of fats, but this opinion is proved to be wrong as by association with fatty acids, i. e., by synthesis, no fat can be made from it. Glycerin is probably a compound substance, and may be regarded as a sesquihydrate of the oxid of lipyl, that is consisting of three equivalents of water, and a double atom of oxid of lipyl. Lipyl is an hypothetical radical, and has the same composition that was formerly ascribed to glycerin. It forms compounds like the ethyle series.

*From notes of lectures delivered to the Materia Medica Class, McGill College, during the session 1856-57.

" *Glycerin* is a faintly yellow liquid, with an agreeable sweet taste,—it attracts water from the air, dissolves readily in water and alcohol, but not in ether, and is neutral. It dissolves alkalis and several of the metallic oxids, as oxid of lead in large quantity. When rapidly heated it is entirely decomposed. If its watery solution be exposed to evaporation, decomposition immediately ensues. When heated in the air it becomes inflammable and burns with a blue flame. By concentrated nitric acid it is converted into carbonic acid, oxalic acid and water; with hydrochloric acid and peroxid of manganese it originates formic acid. The best test for it is that when heated with anhydrous phosphoric acid in a tube from which fresh air is excluded, it yields acrolein," which is known by having a peculiar and a very disagreeable odor, not unlike that developed by the wick of an expiring oil lamp.

" *Stearin* or stearate of the oxid of lypyl occurs as a pure white substance; it separates on cooling from its alcoholic solution in snow white glistening scales, which under the microscope appear chiefly as quadrangular tablets, sometimes as short rhombic prisms."

" *Margarin* is a white solid. It crystallizes from alcohol as a flocculent white powder, which under the microscope appears in the form of very delicate and often curved needles, arranged in rays or in whorls."

" *Olein*. This is a colorless oil which solidifies at a low temperature, it turns rancid on exposure to the air. It is never obtained entirely free from stearin or margarin."

DIGESTION.—It is conceded by every observer that fats are digested in the duodenum. They are not normally acted upon in the stomach, so that after remaining for a time in this organ they pass unaltered into the duodenum. The only exceptions are that when adipose tissue is taken into the stomach, the areolar membrane connecting the vesicles as well as the simple membrane which encloses the vesicles are dissolved by the animal heat and gastric juice, and the fat is liberated so as to become diffused in a fluid form; the membranes thus fused are, however, albuminous textures, so that probably this is not truly an exception, for the fat is not acted upon till after it has got clear of the pylorus into the duodenum. The next exception is seen under certain disordered states of the stomach, there being then a great proneness in the fats to evolve fatty acids while in the stomach, such as occur during ordinary rancidity. These acids are exceedingly acrid and irritating. Thus mutton fat develops hircic acid; train oil, phocenic acid; and butter, no less than three, butyric, capric, and caproic acids. In healthy digestion the presence of bile is essentially necessary to ensure the assimilation of fat. Bile is necessary chiefly to promote the absorption of the oil globules through the intestinal

villi—because oil cannot unaided penetrate an animal membrane such as that lining the duodenum without considerable pressure, while it may be forced through with comparative facility when the membrane is saturated with a fluid which adheres to or has an affinity for oil such as bile. The required pressure is exercised by the organic muscles of the villi in the intestine, and the absorption is performed by the lacteals principally, though partly also by the intestinal capillaries—the latter fact is demonstrated by the discovery of fat in the portal vein. The lacteals are said to be exclusively operative in absorbing fatty matters, i.e., their exclusive use is the absorption of fat. It has been supposed that fat is saponified in the duodenum; by forming an emulsion according to some with the bile, according to others with the pancreatic juice; but this is wrong, for the saponaceous particles of such a compound penetrate but very imperfectly, or scarcely at all, through a moist membrane. The truth seems to be that fat is reduced to an emulsion, but the latter is entirely of a different nature to that imputed—it being solely an admixture of oil and water, without any incorporation of alkali; in its establishment the intervention of the alkali is necessary, but unlike the making of soaps no alkali is retained in constitution. The entire action consists in the fat being diffused in minutest particles through the watery fluid, and it is accomplished by the bile in association with the pancreatic juice, and with the co-operation of the intestinal movements. This intimate admixture of oil and water takes place at the very commencement points of the lacteals. The study of the morphologico-objective facts confirm these views that no new adipose compound is formed, for fat may be identified by its globules in all the stages of absorption—when spread out over the intestinal membrane—when adhering externally to the epithelia of the duodenal mucous surface—when within the epithelia, which they distend and distend by their intromission—when in the subjacent vesicles or cellular bodies that contribute to cap the villi—when inside the true parenchyma of the villi,—and lastly, when within the canals of the branching lacteals.

DIGESTIBILITY.—Popularly fats are ranked among the most indigestible matters. Physicians have accordingly always exhibited an extraordinary aversion to their use; this is the more remarkable as it is a matter of daily experience that many fats, as for instance, the fashionable though rancid cod liver oil, are very easily digested. Although they undergo no essential change in the stomach, nevertheless, when taken in large quantities, either alone or with other food, they generally remain for a long time in this organ. Beaumont found mutton suet in the stomach of Alexis St. Martin 5½ hours after its introduction. By its presence in the

stomach fat often exerts an impeding action on the digestion of other substances in that viscus—owing to its liquifying in consequence of the high temperature to which it is subjected, then spreading over the individual parts of food, encasing them and precluding the action of the digestive juice. Sometimes again it sickens by causing a large regurgitation of bile, more than it can counteract, so that the remainder acts injuriously: while, at other times again, it disagrees by becoming decomposed during long retention and forming volatile acids which exert a very deleterious agency upon digestion being very acrid and irritating. Accordingly those fats, from which can be made most volatile acids, are more liable than others to disagree, and hence the use of mutton fat, butter and fish oils are especially objectionable to an invalid, with whom their employment is liable to create cardialgia, eructations, nausea and vomiting. You can now understand how large quantities of adipose food are prejudicial to gastric digestion, though strictly speaking there is no digestion of fat in the stomach. As fat is not, as I have just said, digested in the stomach, we can form no idea of the *time required for its digestion* by an examination of the contents of that organ; nor can we decide by an examination of the intestinal matters as the period of its descent into the duodenum is not constant. After it has entered the duodenum it is probably absorbed or disposed of rapidly, for says Lehmann “in the course of from half an hour or an hour after fatty food or oil has been taken we find in the upper part of the jejunum in dogs, cats and rabbits, not merely the epithelium, filled with fat globules, but also the lacteals with glistening white chyle;” and therefore he says we must regard fat as very easy of digestion. When not mixed with too large a quantity of food it essentially promotes the digestion both of albuminous and amylaceous substances; it is easy to ascertain by means of artificial openings in the stomach that flesh for instance deprived of fat remains longer in the stomach, and therefore requires a longer period for its metamorphosis than the same substance when mixed or impregnated with a little fat. The digestibility of adipose food is greatly lessened by its exposure to air as it becomes rancid and in the condition of acidity before described. Heat has a somewhat similar influence, so that culinary operations in which oil or fat is subjected to a high temperature are objectionable for the preparation of these foods for persons with weak stomachs. On this account dyspeptics should be interdicted from employing dishes prepared by frying, as in this operation the heat is usually applied by the intermedium of boiling oil or fat. In nine-tenths of the dishes which are innocuous to dyspeptics, one or other will be found an active constituent; hence both should be carefully prohibited to persons of this class unless

they have been shewn by former experience not to disagree, and they should be shunned not only in their obvious forms as oils, &c., but in their more masked forms: the latter are especially insidious and likely to be overlooked, but their great danger demands their rigid discovery and strict prohibition. As examples may be cited, yolk of eggs, livers and brains of animals, milk, and particularly cream, rich cheese,—frys, such as melted butter, buttered toast, butter cakes, pastry, marrow and suet puddings—various fishes as salmon, herrings, sprats, &c.,—oily seeds, as walnuts, butternuts, cocoa nuts, &c.; chocolate also the preparation of an oily seed; hashes, stews, and broths, indeed no broth should be used by dyspeptics that is not skimmed.

NUTRIENT VALUE.—To the human palate adipose food is at first probably distasteful, but a taste for it can be more readily acquired than might at first be supposed: patients who have been treated with cod liver oil, have in a short time begun to like it, and to prefer that which is most strong and rancid. Large quantities of fat produce highly stimulating effects on the constitution, enabling the body to resist the influence of excessive cold to an extraordinary degree, which is no doubt the reason of its being eaten so inordinately by the inhabitants of very high latitudes. Some of the naval officers who have commanded expeditions to the polar regions, think, with apparent reason, that their crews would have suffered much less from the cold, if they could have lived more after the manner of the natives, and taken more greasy substances as food. An oleaginous diet is not prized by the inhabitants of cold countries exclusively, for in South Africa the mass of fat forming the tail of the sheep is held in great estimation by the Hottentots. Still, however, the quantity of fatty aliment consumed by the inhabitants of hot countries is very inconsiderable, compared with that eaten by people residing in very cold regions,—its excitant influence rendering it unfit as a principal article of food in warm climates. The preceding remarks should properly be restricted to animal oils. For vegetable oils are consumed in large quantities by the natives of temperate and tropical regions of the globe. Vegetable oils, however, have an opposite effect upon the body to that produced by animal adipose substances; for they are cooling instead of stimulating, and favor the action of the intestinal tube, which is always of great importance to the health, and particularly so when the food consists chiefly of vegetable matters. Nothing more readily removes the inconveniences induced by sluggish bowels than a liberal use of vegetable oils. Generally speaking a taste is readily acquired for the latter, yet there are many persons who have almost as great an aversion to olive oil as they have to train oil, merely from prejudice.

Uses.—1. To replenish the adipose tissue. This membrane is distinct from the areolar with which for a long time it was confounded. Hunter denied its individuality, because all the fat may be dissolved out of its areolar meshes by ether, leaving them unaltered. The fact of its distinctness from the areolar membrane has been abundantly substantiated in more recent times by the microscope. Adipose tissue is so universal as to be present in every part of the body except the teeth. As was before mentioned, it consists of cells;—when fat is taken as food it is secreted in part into these cells, and thus fulfils its office of replenishing the tissue. It is abstracted from the blood capillaries by the cellwalls, and discharged into their cavities; in passing to these receptacles it is undoubtedly modified, since animals secrete fats quite different from those which enter into the composition of their aliment; thus human fat contains little or no stearine, although this is largely consumed by us as food. This circumstance of difference in composition between fat eaten and fat secreted, countenances the opinion of Liebig, that the adipose tissue is replenished not by fat, but by the transformation into fat of various non-fatty substances, starch, gum, sugar, &c. This Liebig believes to be the rule, but admits as an exception that when surplus quantities of fat are eaten, the excess may be simply appropriated to replenish the adipose tissue. The tissue thus produced performs a number of important uses of a physical kind as giving rotundity to the frame, serving as an elastic cushion to lessen the effects of shocks, and to diffuse uniformly external pressure; filling up interstices that otherwise would exist between muscles, bones, vessels and nerves; facilitating the mobility of organs; protecting the body from the pernicious effects of excessive heat or cold, and of rapid changes of temperature; affording buoyancy to parts of greater specific gravity; rendering other textures supple and lessening the brittleness of parts naturally fragile. Under certain favorable conditions the development of fat proceeds to an extraordinary degree at the period of manhood, Liebig has said its production is a consequence of a deficient supply of oxygen, for oxygen is absolutely indispensable according to him for its consumption, or rather the consumption of the carbon and hydrogen it contains, this scarcity may result from deficient respiration entailed by confinement, want of exercise, indolence, &c., or it may ensue from a natural supply of oxygen, and an excessive amount of fat, i. e., too much fat for the oxygen,—the relative balance being equally disturbed in either case. These rules do not however always apply, and occasionally without being able to assign any satisfactory reason for the occurrence we observe persons fall into extraordinary corpulence, or obesity, or polysarcia, as the state of gross fatness is variously styled. An Italian Priest

who rejoiced in the name of Paolo Moccia is reported to have weighed less by 30lbs. than his own bulk of water, and therefore could not sink in that fluid, he was water-proof, as light as a cork and could not drown. M. Blainville is reported to have remarked, after a tour across the channel: "We have seen many individuals of the English nation whom embonpoint had rendered almost monstrous; and I remember, among others, a man exhibited in the Palais Royal, who weighed 500lbs.; he was literally as broad as he was long." From the correspondence of weight, the fat man here alluded to must have been Mr. Bright, a tallow chandler and grocer of Malden in Essex, who died in the 21th year of his age. Seven persons of the common size were with ease enclosed in his waistcoat, and a stocking which when sent home to him was found too little, was large enough to hold a child four years old. Mr. Bright was esteemed an honest tradesman and a facetious companion. He was comely in his person, and affable in his manners. Heavy though he was, he fell short of the weight of Daniel Lambert who exceeded him by 10 stone, and died after living through 40 years, leaving behind him the posthumous fame of being the most ponderous or colossal man that has been ever authentically known. In him mice might possibly have nested, if it be true that a Bishop of Mentz, or as Hudibras has it,—

"A Saxon Duke did grow so fat,
That mice (as histories relate)
Ate grots and labyrinths, to dwell in
His postique parts, without his feeling."

Polysarcia may be repressed and lessened by systematic exercises—living on sixpence a day and earning it; by sleeping little, and only indulging in food of sparing quantity and a dry kind; by fretfulness of temper, or real anxiety of mind. These will prevent any one from getting fat, and make the fattest man thin. If we are to trust Shakespeare, the great Julius Cæsar had a keen perception of the causes and indices of meagreness. He says to Antonius:

"Let me have men about me that are fat;
Sleek-headed men, and such as sleep o' nights:
Yond' Cassius has a lean and hungry look:
He thinks too much: such men are dangerous."

Antony, in reply, beseeches Cæsar to fear him not, as there is no reason, and he is a noble Roman; but Cæsar again returns to the charge:

"Would that he were fatter,"

and so enters on his monologue. Examples of extreme attenuation are now and then observed. An American named Calvin Edson, shewn

a few years ago, was wonderfully emaciated. He weighed but 58 lbs. A Frenchman named Scurat is said to have been considerably lighter than even this. He was exhibited at one time under the attractive sobriquet of the living skeleton. I have not succeeded in ascertaining his actual weight, but he is said to be as extreme an illustration of leanness as can be imagined. He lived upon $\frac{3}{4}$ of nourishment daily, comprising a little meat and bread. Neither the American nor Frenchman had any disease. The Frenchman was 30 years old, and had wasted from infancy. The American was 40 years of age, and had been getting spare for 16 years.

Fat is deposited in some organs in preference to others, especially the liver; a circumstance that has led to the enunciation of a theory that the lungs and liver were compensatory organs, so that when one was incompetent to act, the other discharged its functions; or, when an extra amount of work was imposed on one organ, it devolved upon the other. When, therefore, more adipose food is taken (according to the disciples of Liebig) than can be burned by the lungs, the superfluous quantity is received by the liver and becomes incorporated with its substance. This is well illustrated in the formation of the *patés de foies grasses*, which are so highly esteemed by gourmands. Geese are confined in coops, just large enough to hold them, in a room which is always kept at a high temperature, while the unfortunate bird is kept close to a fire, and constantly crammed with food. In a short time the required change ensues, and the liver is found enormously surcharged with oil. In parts of France and Germany this is a very common practice. In Italy it is the custom to treat a peculiar swallow—called, I believe, the *Orlin*—in the same way. After a short, but steady persistence, in a similar mode of treatment, they become actually little balls of fat, and are then judged ready for killing. The cook prepares them into a *d'ah*, which is esteemed among the raciest morsels by epicureans. This fatty condition of the liver is often seen as a result of disease; indeed it is a common occurrence in Phthisis, in which affection it also proceeds occasionally to a great extremity. In one instance, alluded to by an eminent pathologist, it extended below the *crista ili*, and almost filled the entire abdomen; so that, to ascertain its measurement, the yard-stick would have been required instead of the inch rule. Applying the same explanation to this diseased condition as the artificial one, the lesion would be accounted for by the damaged and ulcerated state of the lungs, being unable to excrete or consume the fat or carbonaceous matters supplied to them. The quantity supplied them might be normal, but their working surface being lessened, and being incapable of over-action, the liver is obliged

to do their duty, and in recompense becomes oppressed with fat. Between the liver and oleaginous aliment are many important relations which you require to bear in mind. This food is absorbable by the agency of the bile; the admixture with water makes an emulsory compound, while at the same time the bile is rendered miscible with the other chylous particles, and they fitted for similation. Consequently, in the hypersecretion of this fluid a natural remedy suggested is the use of oleaginous food. When, therefore, regurgitation of bile takes place into the stomach the patient will find his nausea, headache, and other annoyances, relieved by eating fat pork or bacon. The truth of the reason, however, has been questioned, but not the fact itself; because the same relief has not been experienced in such cases by the use of other fats; so that there must have been something peculiar in the bacon, probably in the process of its curing, which rendered it salutary. In Cholera Infantum, again, when every other thing is rejected from the stomach, this food, rare broiled and given in small quantities at a time, has been retained, and to the manifest advantage of the little sufferer. Again, it is a popular notion,—and by no means an erroneous one, although it is now and then pushed too far,—that fatty food produces bile in the stomach. Dr. Beaumont verified this, with an immense number of other facts, by actual observation. Diabetes, which was spoken of in the last lecture as having a dependance on the hepatic functions, has been assumed as an indication for the use of oleaginous aliment; indeed it agrees so remarkably well with patients in this disease that it has been proposed as a remedy. When freely taken it causes a flow of saliva, and thus diminishes the urgent thirst; and usually it gives a sensation of satisfaction and support to the stomach, which other alimentary substances do not. Occasionally, however, it disagrees. If useful, butter would, perhaps, be its most agreeable form. And lastly, gall-stones are known to consist of a fatty matter called cholesterine, and have been accounted for upon the theory of a mal-assimilation of the oleaginous principle.

2. Adipose food replenishes the medullary membrane of bones with medulla or marrow. Marrow is perfectly identical with the ordinary fat of adipose tissue, excepting that it contains somewhat more olein. It not only remains undiminished, but is even not unfrequently augmented largely in various diseases of the bones; as, for example, osteomalacia.

3. It is indispensable to the sustenance and reparation of the nervous system, as fat under the form of cholesterine enters largely into the composition of its structure. This statement I find rather discountenanced by Lehmann, who says, notwithstanding the similarity

which many of the physical properties of cholesterine present to those of the fats, we can hardly suppose that it takes its origin from them, since they for the most part become oxidized in the animal body, whereas in order to form cholesterine they must undergo a process of deoxidation.

4. It maintains the healthy composition of the blood, the chyle, and the lymph,—the three great circulating media or fluids of the economy. The amount of fat in the blood does not vary much in a normal condition, and is, according to Boussingault's numerical investigations, wholly independent of the amount of fat contained in the food: it varies from 0.14 to 0.33 in health. Fat in blood is mostly in a saponified state, but in many diseases the blood has been observed to contain large quantities of unsaponified fat; it is principally deposited in the cells or blood corpuscles. Berzelius said that in the latter it chiefly occurred as phosphorized fat, but at the present day there is reason for questioning the propriety of this opinion, and it is probable that the fat in this situation exists as glycerophosphoric acid, similar to that discovered by Gobley in the yolk of the egg. Fat of the blood also exists in the serum; here only a small part is free, the great bulk is present in large quantity as a soap; fat also exists in serum as the crystallizable lipoids, cholesterine and serolin. The fat of serum, compared with that of the blood corpuscles, may be regarded as more readily crystallizable, less tenacious and colorless, but far inferior in respect to quantity. Chyle differs from blood in chiefly containing its fat in a free or unsaponified state, very little being in the soapy state. Tiedmann and Gmelin always found chyle very rich in fat, and the milky turbidity of this fluid as well as that of the lymph is owing to the oil globules which they hold in suspension.

5. Adipose food furnishes various secretions with their normal supply of fat constituent as the biliary and the lacteal;—mucus and sebaceous matter. Of these milk contains the largest share by far; on an average there is 2.9 per cent. in woman's milk. The oil globules rise to the surface when milk is allowed to remain at rest, constituting cream, which also includes some of the casein, sugar and salts. These may be mostly separated by the process of churning: this ruptures the envelopes of the globules, and butter is formed by the aggregation of the contained oil.

6. It contributes to make up a share of certain excretions. Thus it is a constituent of the fæces and of the sweat. The oily character of the perspiration was for a long time ascribed to the accidental incorporation of sebaceous matter, but Krause has shown that in reality the sudoriferous glands themselves secrete true fat—by testing the fluid

collected from the palm of the hand and sole of the foot where there are no sebaceous glands.

7. It is useful as the agent by which the metamorphosis of animal matter occurs. This opinion is promulgated by Lehmann, and originated with him. He tells us he was long since led to it upon theoretical grounds; but that, latterly, this subjective conviction has been converted into objective proof by numerous experiments and observations. He has thus been assured that fat is *essential* to the accomplishment of perfect chymification, being indispensable to the reduction of nitrogenous articles, and contributing to the complete solution of the other varieties of food. He surmises that the pancreatic fluid owes a portion of its utility in promoting chylification to the fat it contains; and that, after fat is absorbed by the intestinal villi, he believes it influences the metamorphosis of the albuminous constituents of the chyle, and performs some undefined use in the blood and nervous system, where as we have seen it is an abiding constituent. Not ending here, fat takes a highly important share in the evolution or formation of cells and tissues, which is one of, if not, the most important and mysterious of the living functions;—in other words, fat is regarded as a factor by which the various structures of the body are constructed. It renders essential aid in the process of converting proteinaceous food into cells and fibres; this application of the general idea of metamorphosis by fat was first suggested by Acherson, who discovered some years ago that a fat globule placed in an albuminous fluid, always obtained from the latter a capsule of coagulated albumen. The connection between fat and cells generally has been still further shewn by other inquirers, who have demonstrated that nucleoli always contain fat; that exudations indiscriminately are adipose; and that newly secreted plasma contains more free fat than after the development in it of nuclei and cells. And lastly, as a metamorphic agent, fat effects the solution and consequent removal from the system of morbid products of the proteine type. Albumen and casein undergo solution when placed in contact with fatty bodies along with sugar;—the latter is also converted into lactic acid. From this fact it has been inferred that morbid structures, as tubercle, in the living organism might be removed, and that adipose food might prove a valuable therapeutical agent. Under this view cod liver oil has been extensively used in tuberculosis and scrofulosis. *En resumé*, from what has been said, you can understand why starvation should occur when the proteinaceous matters—though the building materials—are supplied in even large quantity, the reason being simply they want the fat necessary to institute their metamorphoses into structures, &c., fitted for the living economy.

There are yet other uses that this nutriment is said to subserve: but they are of a more questionable character than the preceding, viz.:

8. Fat maintains and supplies the heat of the body. Liebig was of opinion that this was its sole use when not taken in surplus quantity; having entertained the idea that fat was intended to be burned in respiration and to sustain the animal temperature by its combustible elements uniting with the oxygen of inspiration—that the fat was transferred to the blood and was burned at the lungs like the oil in a lamp, or the coke in a steam engine. I have no doubt that heat is generated partly by the oxidation of fats—but, neither can I believe that this is their sole use to the body, for we have seen the denial of this in what has been before stated, nor can I consider this consumption to be the only cause of calorification, for as in former lectures it was told you, the proteine compounds in becoming transformed develop heat, and the same is true of metamorphosis generally. Liebig in his exclusiveness evinces a great mistake, into which he has fallen, in regarding animal heat as too independent of other processes.

9. In excess it serves the purposes of stored up nutriment in times of scarcity. This opinion, I think, emanated with John Hunter, who regarded fat as a provision stored away for an emergency in case of failure in the ordinary supply of food. Accordingly we find the adipose tissue the first to disappear during starvation or during exhausting and protracted diseases. Should it happen that all the fat has disappeared, the proteine tissues next are devoured; hence the mucous membranes suffer from a disintegration of their epithelium, as is constantly witnessed in the sore throat and diarrhœa in the last stages of phthisis, and also in the mucous membrane of the stomach. Lehmann denies that fat is ever stored up nutriment; without, however, as far as I can see, sufficient reason. Upon his own admission, it disappears under circumstances of starvation, and if, as he allows, it discharges an essential operation in nutrition, I cannot discover any discordancy in ascribing to it the sustenance of the body when the supply of other nutriment is withheld. The chief obstacle in his way to receiving the fact is the difficulty of understanding how a vesicular membrane like adipose tissue can be amplified or resorbed; but whatever may be the mode by which this happens, there can be no question that it is accomplished, and it is equally certain that variations in the amplitude occur synchronously with excessive and defective feeding. A further impediment to him was to understand how the resistance to the exit of oil from the cells caused by the moisture which surrounds the walls could be averted; but this has been latterly removed by Matteucci, who has shown that olea-

gious particles will pass through animal membranes by endosmosis to diffuse themselves through an aqueous liquid, provided the latter is alkaline. It is on this principle nearly that lacteal absorption, you remember, is effected.

10. According to Truman, it probably compensates to a certain extent for the want of vegetable substances as food. This observation is supported by the fact that the hyperborean nations who consume the largest quantities of animal fat, are very often for months and even years unable to obtain any vegetable food whatever. The Esquimaux, for instance, who consider a draught of whale oil a luxury, live chiefly on blubber, which is the fat of the cetaceous whale: and the Russians, Cossacks, &c., will eat candles, soap, and tallow of every description.

SOURCES.—These are direct and indirect.

THE DIRECT are various, as *ordinary fat, marrow, livers, roe or ovary; butter; oily seeds, as acorns, cocoa, chestnut, hazel nuts and walnuts; chocolate; certain animal and vegetable oils.

There are three vegetable oils which are used as aliments; they are the almond, olive and castor. Of these the principal one used by Europeans is the olive; but in China it is stated that castor oil is used,—it is probably rendered so by being subjected to a particular depurgandizing process.

From the animal kingdom is procured the much vaunted cod liver oil, and the same department of nature furnishes two allied sources of adipose food, wax and spermaceti.

INDIRECT SOURCES.—A very important discussion in a Zoo-chemical point of view was long waged concerning the formation of fat. It involved a remarkable difference of opinion and enlisted numbers of the most learned men in its cause. As rival champions Liebig and Dumas entered the arena, the first distinguished as the German, the latter as the French chemist. The point at issue seems a simple one: it was, can the system manufacture fat or can it not? Beginning in this small question, the answers so enlarged and grew that they attained colossal proportions. They involved a full examination of the inquiries, varied as they are, relative to the origin, to the sources and to the uses of fatty food. And not even resting there, the controversy encroached backwards and shook the whole theory of dietetics and nutrition. So that at length it came to pass that not an unfitting test of a man's belief concerning the latter subjects might be framed from his answer to the original question, can the system manufacture fat or

* The descriptions and comparative value of these were given in the lectures, but are here purposely omitted.

can it not! I believe it can; but first listen to the German and French disputants. Liebig believed that fat was formed in the body by the conversion of certain substances, as starch, gum, sugar, alcohol, &c., used for food; the change consisting in the loss of oxygen or carbonic acid, or both. Thus an equivalent of starch became one of fat, by yielding up 1 of carbonic acid and 7 of oxygen. Dumas on the contrary denied the truth of this theory of transformation, and contended that all fat pre-existed as such in the food and was merely subtracted from its associate principles by the system. Experiments were adduced on both sides and each one appeared to be fallacious to its adversary. Liebig fed geese on maize, and as they fattened, he considered this fact corroborative of his hypothesis, because he had found maize to contain no fat. Dumas, however, declared that maize did contain fat and appealed to his own analyses in proof. The fact now appeared that these great men did not agree as to what was fat. Liebig considered that only those matters were adipose which possessed all the properties of fats; while Dumas regarded any substance to be such which possessed one single property of the class, viz: solubility of the article in ether. Now applying the contradictions to the original question, they stand thus in answer to the latter;—Liebig admits the system does form fat. Dumas denies that it does so. And extending these positions to the theory of Dietsics we conclude either that the constituents of the tissues do not always exist in the food, but are formed by an action of the vital parts out of materials which bear no resemblance to them: or else we must infer that the components of the organism pre-exist in the food and that nutrition is merely a separation of these in the system and an appropriation of them to its respective parts. Now we know from what we have already seen in regard to other aliments that the first opinion and not the last is true. But to return to the fat question. Not contented with the auxiliary aid of several coadjutors, the rivals referred the question to the committee of gelatine, who supported Dumas. Liebig nothing daunted replied, and among other remarks made the following very pertinent ones, which I believe are still unanswered. "Starch, gum and sugar contain, even with their large quantity of oxygen, all the ingredients of fatty bodies; and the formation of butter in the body of the cow and of wax in that of the bee leave hardly any doubt that starch, sugar, or gum furnish the carbon for the formation of the butter or of the wax. It is further certain that the brain, the nerves, the blood, the fæces and the yellow of the egg contain a substance in considerable quantity with a far smaller proportion of oxygen, than the known fatty acids, a substance which has not hitherto been found in the food of grammivorous animals."

These as well as other data that will presently be adduced are sufficient to authorize us in saying the system does manufacture fat from non-adipose articles of food. But in admitting this, we are not to overthrow all we have received as to the appropriation of oleaginous food by the system from its direct supply. On the contrary, both solutions are consistent with each other, and the two must be maintained. The double statement then is correct; fat if already formed can obviously be readily appropriated or assimilated, and proper materials may be converted into fat. Lehmann takes a like view and asks the question, Does the animal's body continue to exercise its power of generating fat when a sufficient supply has been conveyed to it by food? He inclines to the affirmative, cautiously premising that the extent of development may vary at different times, and thus accounting for those cases of morbid fattening, either general or local, when the function is excessive. We are now prepared, having given a quietus to the *questio vexata*, to discuss the indirect sources of fat. You can understand that if we were converts to Dumas' mode of thinking, we should see no indirect sources of fat and all further description must cease. But with the other side let us proceed. The indirect sources are of two classes. Carbo-Hydrates or non-nitrogenous &c. 2, Nitrogenous.

The carbo-hydrates are those agents just now mentioned, viz. starch, sugar, gum, alcohol, &c. Fat may be formed from all of them. Vegetables certainly produce adipose principles, by their organizing powers, from starchy and saccharine materials. For evidence of this we have but to look to the transformation in the gradual disappearance of fucula and its being replaced by oil in the castor oil and other oily seeds, also in the sugar cane where the sugar is gradually displaced by wax. Fat has also been artificially formed from sugar by the action of caseine at a high temperature. With animals where all the difficulty so long lay, many equally strong facts might be adduced. There are those for instance which Liebig has advanced in his unanswered appeal. Yet more, M. Persoz found in fattening geese that the adipose matter formed in their bodies was more than double the amount that could be extracted from the maize consumed. Besides herbivorous animals contain peculiar fats such as stearin, spermaceti, &c., which do not exist in vegetables.

Nitrogenized Substances include the proteinaceous compounds. Albumen, fibrin and casein are each convertible into fat. Boussingault has ascertained that geese fed upon pure casein or albumen had more fat in their tissues than could have been taken into their stomachs. The ability of albumen and fibrin to be transformed into fat is strongly demonstrated by pathological occurrences, where such a change does actually proceed.

Virchow has satisfied himself that local polysarcia was a common event of inflammation in consequence of a transformation of albuminous deposits previously exuded: thus fatty kidney has succeeded albumino-nephritis. Mr. Paget has shown that muscular substance is liable to a degeneration or conversion into fat, producing one form of muscular atrophy that must be distinguished from another in which fat is deposited external to the fibres, and causes their atrophy by its pressure. Persoz observed that in the morbid fattening of geese, a large amount of oily matter existed in the blood at the expense of the albumen. Bodies buried in favorable soils, for a length of time, are found converted into adipocere,—a substance resembling spermaceti,—and this same change, according to Blondlot may at any time be produced in albumen simply by the agency of moisture and a partial exclusion of oxygen. Wagner, lastly, found that testes introduced within the abdomen of hens were, after being detained there sufficiently long, converted into fat—Leaving these pathological examples out of the inquiry for they are due to a topical change in the part where they occur; let us discover what is the seat of the changes of non-fatty aliments into fatty matters? Two sites have been selected—the intestines and the liver. Against the former it may be urged—that if fat were manufactured in the primæ viæ the chyle would contain more fat after a vegetable than after an adipose animal diet, but the contrary has been noticed. Again, Bousingault did not observe any instance in his recent experiments on ducks in which the fat contained in the intestinal contents was increased by feeding the birds on starch or sugar, though such must have been the case if the metamorphoses of these substances occurred in this part of the system. That the liver is the manufacturing site of fat, seems more probable. Bernard thinks that the liver makes fat is proved by his having discovered fat in abundance in the hepatic veins and likewise in the liver, while he could not find it in the portal vein. He further proves that it is chiefly, if not exclusively, during the act of digestion that the liver performs this newly discovered function. The same theory is suggested by the examples I formerly mentioned of fatty liver produced by Phthisis, and in geese by gross feeding, and any other circumstance, that prevents the subjects from consuming their adipose material. And in conclusion, it may be asked how fat is formed from other substances? Liebig's scheme, formerly mentioned, of starch turned into fat is a plausible one, but says Lehmann, "so long as we are ignorant of the grounds on which a process is based, although we may be acquainted with the individual factors, we must defer all idea of a scientific explanation: there is however no deficiency of imaginary schemes to interpret the

transformations." After alluding to the false support these schemes seemed to derive from the butyric fermentation of sugar, he adds, "we are for the present constrained to regard this view as a mere fiction illustrated by chemical symbols, since whatever corroboration it may acquire from future experiments, it is at present wholly devoid of all scientific support."

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

ART. XXI.—*Human Histology* in its relations to Descriptive Anatomy Physiology and Pathology, with 434 illustrations on wood. By E. R. PEASLEE, M.D., Professor of Physiology and Pathology in the New York Medical College; of Anatomy in Dartmouth College, and of Surgery in the Medical School of Maine. Member of the American Medical Association; of the New York Academy of Medicine, &c., &c. Philadelphia: Blanchard & Lea. Montreal: B. Dawson. Quebec: Middleton & Dawson. 1857, p.p. 616.

There is a sore evil which we have seen under the sun, and it has infected more than one victim to the *cacoethes scribendi*. Under the air of learning it breathes forth veneration and lives in the consciousness of a foreign pride. Disdaining homely productions or national efforts, it delights in those of a different tongue, and draws from the compositions of unknown minds the information it characterizes. It creates an unwholesome taste for novelty, and pushes the respect for authority to the verge of the ridiculous. By nurture it grows yet more uncouth, and causes in lieu of a professed liberalism a total desertion of personal judgment. Of the nature of a true parasite it draws support from an invested trunk of more substantial strength, and, after all the exhaustion of which it is capable, appears in the end of very diminutive proportions. The writer on whom this vice batters, is fond of appealing to authors with foreign high sounding names, who write in a language different to his own, who are but little known in his own land, and whose very mention should awe into submission the presumptuous doubts of an opponent more familiar at home.

In its meaner exemplifications its absurdity is too obvious to be overlooked by the least discerning. Then the less ascertained about the author, the more sesquipedalian his name, and the further off his residence,—the higher still are his claims to regard and preference. The more barbarous his distinctions, the more novel his appearance,—the more

mighty grows the great unknown idol in the conception of his adulators, and in correspondence to their ignorance does wonder amplify his magnitude as a colossus or leviathan of literature. From his statements dissension is unpardonable; they are to be received unquestioned. Original inquiry is to be shut up as an unseasonable intruder, and allowed to rest in the shade of his umbrageous cover.

For aught the admirers know the object of their imitation is held in little or no estimation among his own people, and the depreciation in his own country may be a just one, sustained by an impartial scrutiny of his actual attainments. It matters not, for the selection has been grounded on other considerations, and herein lies the folly of the evil.

Or to see it yet more clearly, reverse the relation of the respective parties. Giving foreigners credit for the same predilections we have,—although thereby we may be doing them gross injustice,—how preposterous would it not appear if we found some German or Norwegian writer quoting largely from one of our publications, simply because it was edited by John Jones, or Mike McFee, names which though proverbially common with us may tickle his foreign fancy as wonderfully dignified and portending for those who rejoice in them no ordinary share of ability. And how much more dizzy would the height of ridicule reach if we found him turning aside from the good of his own tongue to repose in the extremely questionable authority of Jones or McFee unknown, more particularly if further actuated by the temptation that their writings contained things hard to be understood, and put forth expressions as singular as to him their names appear.

We have been led into these observations from an examination of the work now under notice, from which in our opinion evidences appear of some of the marks of the sore evil that has been described. After an examination of the first part which is intitled "STÆCHIOLOGY," the impression left on our mind was that it had too much of "*Robin and Verdeil*." However formidable may be their appearance in their original three tomes, it certainly does not show to advantage in Peaslee's curtailment, and though their tone may be *distingué* in Paris, it would scarcely be considered proper across the channel, so that its healthy condition might profitably have been first investigated by a reference to certain English standards of comparison. Under the head of "*carbonic acid*," p. 44, it is said:

"It is dissolved in both the serum of the blood and the corpuscles, there being more in arterial than in venous blood (R. and V.) * * * The greater amount of carbonic acid gas in the arterial blood confirms the idea that it is set free in the lungs from the carbonates in the blood by the action upon the latter of pneumonic acid (R. and V.)"

The latter substance is corrected in the list of errata, and called *pneumic acid*; no other part of the paragraph appearing there we are bound to receive it as designed, correct and revised. Short though this extract be it needs no great share of acumen to perceive its erroneousess,—or rather that it is redolent with errors. Not to be too minute it will suffice to point out these:—The existence of carbonic acid gas in arterial blood! the wilful perpetuation and extension of the error by calling the proportion of this gas greater in arterial than in venous blood!! The contradiction openly made of the mode of existence of this acid; it is previously implied to be *free*, to be as “a gas,” “in solution,” “in its gaseous state,” and then subsequently, as we see, to be *combined* as “the carbonates” which are decomposed in the lungs!!! The unqualified assertion for established truth of an impudent assumption that there is a free acid in the lungs, the “pneumic”!!!! And the rich idea that unrestrained chemical action takes place between it and the carbonates, attended with the liberation of carbonic acid gas; in other words, that, notwithstanding the reign of vital control in the lungs, the same turbulent effervescence takes place at every breath we draw that does in our tumblers when we quaff off the flowing nectar or the less pretending sodaic powder. If so be, here is an unrecognised explanation of the vesicular murmur which we offer the friends of the Stethoscope!!!!

These announcements, truly *novel*, are supported by a double reference to “R. and V.,” and their correctness P. does not presume to call in question. Apparently he sees in them nothing antagonistic to more vulgar, though more sound opinions. The foreign reference he may consider as sufficient to command obeisance or acquiescence, and enough to justify our taking on the same terms equal enormities, were it possible to be guilty of them. Another wonderful proposition—at least to us—in a few pages further on:—

“But it (water) confers the liability to sudden changes in the blood or in the organs from putrid, purulent or mephitic infections, facilitates the transmission of poison, procures the aptitude to decomposition, and hence in many cases induces sudden death.”

Here ends the sentence, and next comes the authority of “R. and V.” From the phraseology the meaning is not at first quite clear, but probably it may be fairly said to be, that, when a morbid poison infects the blood, the presence of water may instigate such changes in the latter fluid as may end in sudden death. The same is equally inferrible about the organs. Are we to suppose from this that the blood or organs have been anteriorly free from the presence of water? Surely not, for they are never free of it. Water ever exists in

large amount, constituting, it is said, nearly three-fourths of the entire body; and any plus addition in the way of ingestion is only compensatory for the portion constantly removed by secretion or excretion, since a balance is carefully preserved. The institution of blood-metamorphoses *in transitu* is at variance with the laws of life, which, while dominant, prevent all action or change from ensuing in the blood during its hurried circulation. Were changes practicable in this important fluid with the freedom that some writers suppose, the most disastrous consequences would inevitably follow the simplest occurrences in which we participated; for instance, were such not withstood, how frightful must be the expectation of he who swallowed successively, after a little interval, a carbonate and an acid! Why, as these are absorbed and enter the blood, so violent would be the effervescence, when the latter agent overlook the former, that nothing short of a blow-up of the entire vascular apparatus could happen! This indeed might follow, were it true that water institutes changes during its presence in the blood; changes lastly, which, as we have seen, must, if the *dictum* be right, be ever in operation as this agent is never wanting.

Robin and Verdeil are prolific in new names and after them in humble distance Peaslee copies without considering their applicability or disadvantages; he bows down his judgment before his masters' and offers up in practice a servile copy. Some of these coinages we dislike. "Osteine" for example we believe to be bad because it is designed to express a substance which contains no bony material nor property in its constitution and exists the most largely in the fibrous tissues. It is also an attempt at an improper refinement. The substance so called it is confessed is "still undescribed," p. 98, and the remarks which are made under its caption are such as properly belong to gelatine; the truth, however, is obscured, and elsewhere than here no account of this really important proximate principle is to be found. "Cartilageine" is used as an equivalent for chondrine, how happy the election is, the reader may himself judge. Next, a substance is spoken of under the title of "Elasticine," which we are prepared to say has not been yet isolated; "its chemical composition is not determined, nor is its amount determined." It was supposed and naturally that yellow fibrous tissue contains a peculiar principle upon which its essentiality depended, and then, before being procured, it is adventurously given a name, an individuality, and as much description as the fertile imaginations of R. and V. (P. following) could invent without violently outraging professional decency. We say violently, for practices such as these—i. e. imagining a thing and then speaking of it as a reality—are nothing short of deceit of low degree. Another

new name turns up in "Urrosacine, in urine," but furthermore the deponents say not, and what it may be, we and their readers are left in *obscuro*.

It were easy to extend this notice to a much greater length—we have the materials before us—but our limits are reached. The latter part of the volume, we are happy to say, we believe to be the best. The whole is got up in a way likely to recommend itself to patronage. The text is concise, and what a hard working student might think would suit him while the illustrations are numerous and really admirable.

ART. XXII.—*Essays on the Secretary and the Excito-Secretory system of Nerves, in their relations to Physiology and Pathology* By HENRY FRASER CAMPBELL, A.M., M.D., one of the Vice Presidents of the American Medical Association, and Professor of special and comparative Anatomy in the Medical College of Georgia (Augusta), with illustrations. Philadelphia: J. B. Lippincott & Co. p.p.135.

Dr. Campbell holds that there is a reflex function between the cerebro-spinal and sympathetic system which is similar to that between the sensitive and motor branches of the cerebro-spinal, and which the late Marshall Hall termed the *excito-motory* system of nerves; and in correspondence Dr. C. names those between the cerebro-spinal and sympathetic system, *excito-secretory*. The essays he has recently issued are republications which have previously appeared; they are five in number, and are designed to substantiate the propriety of the author's opinions just stated. They have appeared opportunely, for latterly several contemporaries have contended for a priority or share in the distinction attendant upon the enunciation of this important fact in physiology. Dr. C.'s contributions serve to establish that he has long had his attention directed to it, that he has for years back felt its importance and has directed his energies towards its demonstration. As early as the year 1850 he made reference to it in a paper "on the influence of dentition in producing disease," read before the Medical Society of Augusta, and since then his views have been gradually more matured, and been corroborated by personal attestations of an anatomical character. In consequence of an inacquaintance with his investigations the late M. Hall had not given them that consideration to which they were entitled, but was rather inclined to believe that he himself was the first annunciator of the existence of the system of nerves, for which, Dr. C., as we have seen, claims the priority of discovery. The act, however, was

one of pure ignorance, and not designed to cast any slight upon the labors of the latter gentleman, for upon their being represented to him, Dr. H., with the candor of a liberal mind, admitted the propriety of the author's position, and in a reply to a statement of the circumstances, observed in his sententious style, "there is in the *excito-secretory* function, as applied to pathology, an ample field of inquiry for his life's (Dr. C.'s) career, and it is indisputably *his own*. He first detected it, gave it its designation, and saw its vast importance." Under such a flattering avowal the author appropriately rests his merits and gracefully inscribes his productions to its recorder with the mention of whose name their present exposition also terminates.

While we thus aid in publicly spreading Dr. C.'s professional fame, we conceive it only just to express our feeling that he has discovered no new law, nor new system, nor new principle, but has merely shewn forth a manifestation of an old action, by an old mechanism, and through an old influence previously unconsidered. The afferent and efferent nerves of the excito-motor system have their analogue in the excito-secretory. The initiative sensory surface or point of departure is the same in both. The signification of a controlling centre or presidential seat, completing by connexion, the nervous arc engaged, is equally alike. The leading rules of the operation of the one are obviously concordant with those of the other;—as in the one set excitement of the nerve periphery on the surface evokes action in the co-related part which forms the opposite ending of the system, so it is with the other. Sedation, in each case, of the excitor is pretty sure to be marked by depression of the motor or secretory in extension. Virtually the *terminus a quo* in both is precisely identical and the difference of the *terminus ad quem* is most in the office that it may subserv. It is therefore comprehensible that the knowledge of the original truth may have suggested the existence of the last appreciated, for there is much in the former, which, to a mind capable of happy generalizations, might have led to the discovery of the latter. The excito-motory would, upon reflection, prompt the expectation of an excito-secretory, even as we can now imagine that these two do not include all the divisions of the great reflex system: and will lead to other excitors which, in time, will find specification in equally precise and measured terms with their antecedents.

This attainment reached, however, the problem now, in reality, only begins; the proposition, so to speak, is given and the solution has to follow. In regard to this point we believe Dr. C. is entitled to all honor and distinction for his reflections and observations which serve to demonstrate the truth of an excito-secretory set of nerves, and accordingly with much pleasure we accord to him the full meed he merits.

The process of arriving at so-called *new things* in medicine now exposed is, we consider, one of more common practice than is commonly suspected; and is one which probably more than any other has led forth into the arena of public literature the largest number of aspirants for notoriety and elevation. By its abuse the simplest truth capable of an extended application is revived under manifold phases. That which should be indivisible is inducted into a multitude of dismembered branchlets and the harmony of a few general principles is destroyed in the confusion attendant upon a practical separation of forced or assumed distinctions.

ART. XXIII.—*A Dictionary of Medical Science.* By ROBLEY DUNGLSON, M.D., LL.D., Professor of the Institutes of Medicine, in the Jefferson Medical College of Philadelphia. Revised and very greatly enlarged. Philadelphia: Blanchard & Lea. Montreal: B. Dawson. Quebec: Middleton & Dawson. 1857. Fp. 992.

This Medical Lexicon contains a "concise explanation of the various subjects and terms of anatomy, physiology, pathology, hygiene, therapeutics, pharmacology, pharmacy, surgery, obstetrics, medical jurisprudence, dentistry, etc.; notices of climate, of mineral waters; formulæ for officinal, empirical, and dietetical preparations, etc., with French and other synonymes." Its indefatigable author has bestowed no ordinary share of labor in accomplishing the troublesome task. At all times a work of excessive pains-taking and assiduous research, the compilation of a dictionary of Medical Science is one of particular arduousness. Having but few antecedent sources of a similar kind, the usual aid, which other laborers, in similar pursuits meet with, is not enjoyed, and in consequence of the liberty so freely used by writers of every class, in coining new terms in medicine, and modifying the signification of old ones, it is indispensable that the literary acquaintance of the lexicographer be of the most extensive kind. The enterprise achieved by Dr. D. would best appear by a comparison of his work with some of the older dictionaries, as those of James or Hooper, or even by marking the differences between the various editions. The present, for instance, is not merely a revised and corrected improvement upon the antecedent, but it actually contains about "6000 subjects and terms" in addition. After escaping from the first impressions felt by a consideration of the magnitude of the exertion and the fancied Herculean efforts necessary to its production, we may briefly view it as a completed work. The words defined are most numerous—thousands upon thousands—from a rough calculation we should say over 65,000; the various combinations, diversities, and other pecu-

liarities of elementary or formative terms is preserved; the ordinary meaning always given in clear intelligible expression; and when an important subject occurs a synoptical history is appended embracing the leading points or features. The equivalent translations of the terms in the principal languages is appended. When circumstances permit various tabular arrangements are introduced to facilitate the students' acquisition of the matter. A large collection of prescriptions is affixed to the account of the principle articles in the *materia medica*; and useful statistical columns on various interesting topics have been drawn up. From these peculiarities, which we do not profess to comprise all the distinguishing marks of this great work, the reader may form some idea of its vast importance and unusual value. We have therefore great pleasure in strongly recommending it to the notice of the profession in Canada. We have no hesitation in saying it is the most comprehensive and yet concise work of the kind that has issued from the American press.

CLINICAL LECTURE.

On Chorea and Myelitis of the Chord. By THOS. ADDISON, M.D., F.R.C.P.,
Senior Physician to Guy's Hospital.

(*Medical Circular.*)

GENTLEMEN.—There is that case in the bed, No. 15, that boy, J. B.—, aged 11 years—a delicate, strumous boy that moves about like a frog or a lizard thrown into half a hundred contortions, and which you recognise at once as hemiplegic chorea, There is that poor boy, I say, so curiously afflicted; the case is one of great interest. You observed, no doubt, some of you, when first I saw him, how carefully we listened to the action of the heart, and how I felt the skin. I will explain why I did so as we go along.

Now, whenever I see a young subject the victim of chorea, I always suspect that it has had its origin in rheumatism. I felt this boy's skin to discover if he had that sweaty surface, so characteristic of rheumatism. I listened to the heart, and what did I find? Loud mitral bruit. And what do we learn in going over the previous history, as noted by the clinical clerk? We find that about three years ago he had rheumatism; and here I may tell you, that you will often find, under the name of severe "growing pains," that you have had, in point of fact, a veritable attack of rheumatism. Are we to believe this mitral bruit was the result of rheumatism, or not?

Believe me, rheumatism is a very eccentric disease; I know none more so. There is no disease, perhaps of which we know really so little as rheumatism in its pathological essence and nature? An old physician of considerable experience was asked, What cure is for rheumatism? His answer was laconic: "The cure for rheumatism is—*six weeks!*" In other words, rheumatism must be let cure itself. I have cut rheumatism and rheumatic gout short in less than half the time with colchicum, or the powdered cornus and sulphate of magnesia, and other things; but I am not so certain that cutting rheumatic gout short by potent measures is quite the same thing as curing it. Let us, however, at all hazards mind the heart in these cases.

Rheumatism is a queer or eccentric disease, I have said. Now, it is my belief that rheumatic disease, whatever it is, *sometimes attacks the skin alone*. It is my firm belief that it sometimes attacks the heart alone. I know the rheumatic skin well; and I am satisfied also about the ravages committed by this so-called rheumatic inflammation in the endocardium and pericardium, and that, too, without any pain to attract attention. I see the rheumatic skin; and when I do, I almost with certainty predict rheumatism, which is sure to supervene. One may sometimes find the heart inflamed, by itself, but you will do well to look out for rheumatism in the joints and their synovial or ligamentous tissues. This pericarditis is of a marked kind, with no pain about the heart.

But you say, What has all this to do with chorea? Well, what the relations are is not clearly made out; but that there is a connection or relation is perfectly evident. If we look at it in this way, we find, for instance, in acute endocarditis, the patient's manner is often very remarkable, more so than in pericarditis; he may be even quite delirious or labouring under decided cerebral complications.

Some ability and ingenuity are shown by Dr. Kirkes and others in tracing certain clots or shreds of fibrinous matter, as washed from the endocardium into the brain, causing irritation there. On the continent, I find they look on the matter in a less mechanical way, and they say a poison—say, like that of some other serous effusions—is carried to the brain from the rheumatic deposit in the endocardium. I am afraid we have too many analogies in pyæmia and other affections, to give stability to this hypothesis.*

* Chorea is derived from the word *choros*, a dance. During the middle ages, we learn from Hecker, sundry choreic ravings attacked the peasants at Kolbig, Erfurt, and Utrecht, in 1374. At Aix-la-Chapelle the sick thus seized "appeared to have lost the control over their senses, and were only relieved by swathing

There are several curious associations, I have said, between the brain and heart, epilepsy, for instance, affects the heart. Sometimes, a fit of epilepsy extends itself in a violent tumult of the heart, I was consulted some time ago by a gentleman—a manufacturer at Huddersfield, or somewhere down there—for some curious functional derangement of the heart I told his family doctor it was epilepsy of the heart; and I believe my friend thought I did not know what I was saying, and smiled at me but the epilepsy of the heart, with those curious fits of unconsciousness he could not understand; and how puzzling they are you will find when you get into private practice; so that you cannot give too much attention to them. Well! these anomalous fits of unconsciousness and tumultuous palpitation ended, nevertheless, in regular fits of epilepsy—some of the most marked, perhaps ever seen. I do not pretend to explain how this is brought about; I only know the practical bedside fact. The relations of the fit in epilepsy itself are very peculiar; but emotional influences will produce palpitation of the heart; and, I suppose, in some such way, epilepsy produces it as a sort of first of “three warnings.” Emotional influences or fright will cause chorea; in fact, it is the most common of all causes of the disease. A dog runs after a child; a ghost story is told by a foolish nurse; a house takes fire, and child is exposed to danger; the child, perhaps, is seized with chorea: some horrible agitation is set up in the emotional (or central) parts of the brain, and chorea fits are the result. The complication or connection of chorea and heart diseases is so common that I always look for it. See in that case of gout, on the other hand, in that poor woman in the other part of the ward, you can scarcely tell it from rheumatism; she has renal disease, with gout in her foot; but her heart is perfectly free, and, in all probability, will continue free. How curious these peculiarities are!

Yet gout and rheumatism are pathological first cousins; but why does one affect the heart, the other not? I cannot tell you. Well, we

the body,” and various incantations common at the time, These choreic ravings were mixed up with various religious ravings, evidently the reflection of sundry broken images, as from the broken mirror of some popular impression of the day. The name “St. John’s Dance” was given to chorea, as it was at one time thought chorea, originated in the revels of that festival and St. Vitus’s dance, because of the cures effected at the celebrated chapel of St. Vitus. This disease continued two centuries. Paracelsus (no very reliable authority) gives a long description of the epidemic, and the Arabians called it a palsy.

† It was recently stated that a young man dropped dead of fright, at a theatre, on seeing the Ghost in ‘Hamlet’ stalk forth for the first time on the stage; and a similar case of death from fright, not long since formed the subject of a coroner’s inquest.

gave this boy a mild mercurial first, to settle all right in the *primæ viæ*, and we shall follow that up with the sulphate of zinc, in which I have great faith as a remedy in chorea. At Guy's at least, we have not yet hit on any thing equal to it.

These poor patients with chorea are often very ludicrous, but very distressing to observe. I have seen four or five deaths from the excessive exaggeration of the chorea symptoms; like lizards or eels, such patients are contorted into a myriad of forms; they glide and twist and tumble about the floor and out of bed or into the fire! I have known chorea to begin with pregnancy, and go on increasing as the poor big-bellied woman got bigger and more unwieldy, and only yield when the uterus became empty again! Dr. Hamilton once thought purgatives cured chorea; but I do not believe this is invariably found. Sulphate of zinc or oxide of zinc is the remedy we have made out as most valuable at Guy's. I have known a patient take of sulphate of zinc (not oxide, mind) so much as eighteen grains four times a day. My attention was once drawn by the late Dr. Chambers to a peculiar cast of countenance such patients acquire who are taking these very large doses of zinc: you know, of course, the dark tint or tinge produced by nitrate of silver, the dark line of the gums by lead, &c. We were attending a patient for another disease altogether, and though Dr. Chambers could not describe what it was, he said, to one in the apartment, "Why you are taking zinc, are you not?" and it turned out that he was. The nearest idea I can give you of the zinc complexion of the face is, that it is destitute of the freshness and cherry redness of rude health, and the skin of the face assumes a glossy sameness of tint very like pewter; in fact, Dr. Chambers knew the "pewter face" very well; it requires the light to fall in a particular direction, and then you will see it: the hint may be of use to you. We will now say a few words about the patient in the bed No. 20. He has been in the habit, he tells us, of carrying heavy loads on his head; this, I need not say, produces a strain on the muscles about the neck, and pressure on the veins. Well, he has had fits of unconsciousness, and now has excessive pain of a neuralgic character in his limbs. We had a man not long since under care, you recollect, with what I called, "*ligamentous rheumatism*." I have seen more than once this sort of ligamentous rheumatism attacking the delicate ligaments, the odontoid, and others of the articulation of the axis and occipital bone and others of the axis and atlas; in one case of a boy it threatened to end in universal paralysis, as the thickened membranes no doubt pressed on the medulla oblongata, producing a somewhat common disease, myelitis of the medulla oblongata or chord, or perhaps mechani-

cal pressure. In a woman with the same disease I verily believe we saved her life by keeping the head, almost in splints, perfectly quiet. We will adopt the same plan in this poor man; we shall support him and proscribe cod-liver oil and tonics, and you will see the result.

THERAPEUTICAL RECORD.

Coffee and Lemon-Juice in Ague.—M. Von. Holsbeek draws attention to a mode of treatment he has found useful. Infuse an ounce of well-roasted coffee in three ounces of boiling water, and having strained the fluid, acidulate it with lemon-juice. The whole is given at once, five hours before the paroxysm.—'Presse Belge,' No. 42.—*Medical Times and Gazette.*

Pressure in Phlegmasia Dolens.—In relating the case of a young man who had suffered from phlegmasia dolens, and in whom the superficial veins continued much swollen, M. Trousseau cautioned his pupils against applying in similar cases firm bandages. The deep-seated veins being obliterated, this enlargement of the superficial ones is a necessary consequence, and compressing them by a firm bandage would completely interrupt the circulation of the limb. A moderate degree of pressure, however, is admissible, as giving support to the walls of the superficial vessels, and preventing their becoming varicose.—'Gaz. Hôp.,' No. 137.—*Medical Times and Gazette.*

Local Application in Eczema of the Face in Children.—Dr. Brehend in a note on the treatment of eczema, recommends the employment of the following combination as a remedy for the numerous scales which frequently cover the face of children:—Cod-liver oil, half an ounce; carbonate of soda, half a drachm. Mix.—*Ibid* p. 272, and *Dublin Hospital Gazette.*

Chalybeate Mixture and Artificial Chalybeate Baths.—We are indebted to M. Lambossy, of Nyon, for the two following formulæ:—

Chalybeate Mixture.—The two following solutions are to be sent to the patient: No. 1.—Take of pure protosulphate of iron, two and a half drachms; distilled or No. 2.—Take of carbonate of soda, half an ounce; rain water, eight ounces; dissolve and cork closely; distilled or rain water, eight ounces; dissolve. To make use of the foregoing, pour a large teaspoonful of each solution into a glass of cold water; on shaking the mixture a greenish-white precipitate is obtained, which it is of importance to swallow before it changes colour. Seltzer water, soda water, and especially white wine, are the beverages which patients prefer to substitute, as vehicles for the chalybeate, for plain or sweetened cold water. *Dose.*—A large teaspoonful of each solution three times a day; after a few days the dose may be doubled.

Chalybeate Baths.—Take five or six ordinary quart bottles, fill them with vinegar, and add to each three or four handfuls of filings, or better, turnings of iron; leave the bottles open and exposed to the air; the reaction is terminated when the liquor has acquired the taste of ink (acetate of iron). Proportion for a bath, the fluid contents of one bottle. Duration of the bath, from one to two hours. The iron is to be left in the bottle, and may be used again by adding a fresh proportion of vinegar. The water of the bath may be made to answer several times by adding merely half a bottle of the above liquid.—*Dublin Hospital Gazette.*

PERISCOPE.

1. OPERATION FOR IMPERFORATE RECTUM NOT IMPRACTICABLE. By *C. E. Buckingham, M.D.*—William the son of William Lund, was born on the 6th of December, 1851, and on the morning of the following day the nurse reported that there was an obstructed anus. On examination, the cleft of the nates was found sufficiently marked, but there was no evidence of an anus, either by protusion or discoloration. During the night there had been occasionally bilious vomiting, and latterly straining, as if to evacuate the bowels. There had been no discharge of urine. The countenance looked badly, and there was lividity about the mouth and eyes. Was somewhat stupid; did not cry, but was constantly moaning. Had no food of consequence.

Operation thirty-two and a half hours after birth, with the assistance of Dr. Henry Osgood Stone. The child was held upon the lap of the nurse, its nates resting over the right knee, and the knees raised as for lithotomy. I made an incision in the centre of the cleft of the nates, from the scrotum to the coccyx, and crossed this with another, at right angles, from the tuberosity of one ischium to the other. Dissection was carried on with a sharp-pointed straight bistoury, backward, and a little to the left, for two inches. No evidence of the neighborhood of the rectum being obtained with the finger, I passed a hydrocele trocar into the wound, in the same direction, a half-inch further. On withdrawing it, meconium was found upon it. The wound was then enlarged with the knife, and a female catheter was introduced, through which an enema of warm water was administered. There was immediately a fair discharge of meconium, and a slight discharge of urine.

The child cried but little, and the whole loss of blood was not much more than two drachms. A few spoonfuls of milk and water was given, and it was dressed in the usual manner, no application being made to the wound. Half an hour later the moaning had ceased, the child looked brighter, and there was a profuse dejection.

5 P.M. Has had two full evacuations, but has not vomited nor passed urine. At 5 P.M., on the 8th, I introduced a sponge-tent two and a half inches, with some little difficulty. During the attempt at introduction the efforts of the child to evacuate the bowels produced an audible passage of air through the penis, which was rendered visible by the spattering of urine, and perceptible to the hand, which was laid above the pubes.

Dec. 9th. Removed the tent, immediately after which he passed a large amount of almost colorless urine in a jerking stream. No passage, either fluid or solid, by the anus at the time.

I have the regular reports of each visit, but select only such as are of particular consequence.

Dec. 14th. Tried unsuccessfully to introduce a bougie of more than one fourth of an inch in diameter. Umbilical cord has not yet separated.

16th. Introduced a female catheter with difficulty.

25th. Free defecation. Passed a bougie of ebony, seven-sixteenths of an inch in diameter.

27th. In pain all night. Tumor in left side just over short ribs, size of a small walnut. Nurse says she discovered it last night.

29th. Tumor increasing in size. Passed bougie of 25th again with ease. Some bloody pus followed it.

Jan. 1st, 1852. Opened tumor, which discharged an ounce of pus.

7th. For several days the left side of the scrotum has been swelling.

13th. Opened small abscess in front of scrotum. Child weighs 9½ pounds, an increase of 2½ pounds since birth.

22d. Bougie has not been introduced since the 16th. Has two dejections daily, and sometimes more. The scrotal abscess is well; there has been a slight gathering again on the left side, which broke yesterday and does not discharge to-day.

Feb. 13th. No bougie since Jan. 16th. Three dejections. Weighs 11½ pounds.

March 11th. Gains daily. Nurses well. Bowels open freely every day, without medicine. No bougie since Jan. 16th. Has gained another pound.

Soon after this last report, the child left town for Gardiner, Me., and returned on the 28th of May. Saw it that afternoon. Looks well, and is fat and hearty. About the 1st of May discharged urine and feces mixed, by urethra; but has not since. For several days last week had diarrhœa, which stopped on the 21st. No instrument has been passed into the anus, which is red and shining about its edges, and bled a little on separating the nates.

Aug. 5th. Has six teeth. For several weeks has had diarrhœa and fecal matter passes by the urethra as by the anus.

In the fall the family removed to Malden.

Oct. 21st, 1857. Saw Mrs. Lund, the mother, at 36 Leverett Street. She informed me that her boy, upon whom I operated, is still living, and is generally in good health. He occasionally has pain in the pubic region, but she considers him well. There is, however, at times, difficult micturition. The family still resides at Malden.

The above case is given, because it was stated, as appears by the records, at the Boston Society for Medical Improvement as the belief of

one gentleman, "that in the present state of the art it is better that a child born with either of these imperfections (*of anus or rectum*) should die without this operation, although it must occasionally be performed in deference to established opinion." The question may be asked if my case is not one of those exceptions which are said "to prove the rule." If it be so, then the rule is one of those which should be honored in the breach. An *ex cathedra* statement—as that from an officer of the Massachusetts Medical College is, and ought to be—may have an unfortunate effect upon many a timid physician, who dares not think for himself, and who would hesitate to ask the aid of one who denounced the operation. If there has been one successful case, which the profession have not known, it is very probable that in the case-books of other private practitioners there are other such. It is very likely that they have not been brought to light because physicians have had no reason to suppose them peculiarly fatal until now.

The case reported by Mr. Jones, at the Suffolk District Medical Society, has been spoken of as it were not a fair case of imperforate rectum, because the sphincter contracted upon the finger. If the child had died without a *post-mortem*, would any one have questioned its being a *bonâ fide* case? The recovery is the only evidence that there was merely a septum across the gut.

The case which I have reported is one of imperforate anus, absence of the lower part of the rectum, and communication with the bladder.

So far as my own reading extends, I do not find any great distinction made by writers between imperforate anus and imperforate rectum. The names do not convey a just idea of the malformations, particularly if, by the name, one is to decide upon the propriety of attempting to save life.

In the *Edinburgh Monthly Medical Journal* for January 1857, which must have been seen by a large number of the members of the profession in this city, is a case precisely like the above. The patient is still living, at the age of thirty-six years, and in perfect health.

Samuel Cooper not only thinks the operation justifiable, but says, "It is the surgeon's duty to do everything in his power to afford relief," and then goes on to describe the operation. He follows with the statement that "by such proceedings many infants have been preserved," in some of whom incisions two inches and more have been made, and alludes to cases by Wolf, Hildanus, La Motte, Roonhuysen, Hutchison, Benj. Bell and Miller.

It is certainly remarkable that these cases should have escaped the notice of the gentlemen connected with the only institution for instruction

in medicine and surgery in active operation in this city at the present time; and it will be equally remarkable if the officers of other schools should arrive at the same conclusions as they have respecting the operation.—*Boston Med. and Surg. Journal*, Nov. 26, 1857.

2. LACERATION OF THE URETHRA FROM MUSCULAR CONTRACTION WITHOUT EXTRAVASATION OF URINE. *Reported from the Practice of Dr. J. C. Hutchison, in the Brooklyn City Hospital, by R. O. Butler, M.D.*—W. F., seaman, aged twenty-six years; native of United States; was admitted into the hospital, March 25th, 1857, at three P. M. Twenty-three hours before admission he was str ck over the region of the left trochanter major by the end of a sugar-hogshead which was being lowered into the hold of a vessel. He was unable to walk after the injury, but could stand on both legs. On the following day, however, he was unable to stand, in consequence of the pain about the left hip-joint. Three or four hours after the accident he attempted to evacuate his bladder, but could not do so, and he observed at this time that the orifice of the urethra was closed with coagulated blood.

At the time of admission he was suffering considerably from retention of urine, which had existed since the occurrence of the accident; he also had a good deal of contusion and pain in the neighborhood of the left hip-joint, which prevented him from turning in bed. Moving the joint increased the pain greatly. *There was no pain, contusion, or swelling then, or subsequently, about the perinaum, scrotum or penis.* The catheter, introduced by the House Physician, (my hand was still disabled) glided out of the urethra at the membranous portion to the left, and passed backward, with very slight pressure, so far that there was barely enough of the instrument outside of the meatus to hold between the thumb and fore-finger. On introducing the finger into the rectum the instrument was felt immediately in front of the gut, nothing intervening apparently but the coats of the bowel. The catheter was passed into the bladder after much difficulty, and the urine drawn off.

On the following morning (26th) he was suffering from retention of urine, and Dr. Brackowitzer, who was visiting the medical wards before the arrival of Dr. Hutchison, introduced the catheter. The instrument several times glided into the false passage, and was detected by the finger in the rectum, immediately in contact with the coats of the bowel. Dr. Hutchison passed an instrument on the same day, and also observed the false passage. No extravasation of urine occurred; the catheter was retained in the bladder eight days without local pain or constitutional

disturbance. After its removal the urine was discharged spontaneously, and for three or four days without scalding, but it contained considerable mucus. He had now recovered from the effects of the contusion over the hip-joint, walked about the ward, and felt quite well; his urine, however, could not be retained as long as usual—its discharge was attended with scalding, and it contained mucus in considerable quantity, which adhered to the bottom of the vessel when turned up. He used a copaiba mixture and mucilaginous drinks, but no material change took place, and he passed into the hands of Dr. Minor, whose term of service commenced May 1st.

The irritability of the bladder was now considerable. He had to discharge his urine several times during the night, and was sometimes unable to sleep on account of pain in the bladder. The urine contained pus and mucus. *Pariera brava*, liquor potassæ, copaiba, etc. were used successively without benefit, and on June 13th an injection of one ounce of a solution containing ten grains of nitrate of silver was thrown into the bladder. It produced considerable pain for a time, which was followed by a marked improvement. He did not get up to pass urine for three or four nights, and the quantity of mucus and pus was greatly diminished.

Six days subsequently the injection was repeated, and was followed by the same benefit as before.

June 30th. Urine passes in a pretty good stream, unattended with pain or scalding, unless he walks about too much. The deposit of pus and mucus is one half less than it was before the injections. Being anxious to visit his friends, he left the hospital, against advice, in July.

The prominent symptoms presented by the preceding case—viz. a discharge of blood from the urethra, retention of urine, great difficulty in introducing an instrument, and the existence of a false passage, observed immediately after an accident—evinced, I think very satisfactorily, the nature of the injury to the urethra. It is especially interesting in two particulars—1st. For having been unattended by extravasation of urine, which must have been owing to the valvular nature of the laceration. 2d. The rupture was not caused by direct external violence, but was probably produced, as suggested by Dr. Isaac, by the violent contraction of the muscles of Guthrie and Wilson, and perhaps of the *transversus perinei*, which took place when the accident occurred.—*New York Journal of Medicine*, Nov. 1856.

3. LIGATURE OF THE DORSALIS PENIS ARTERY FOR HYPERTROPHY OF THE PREPUCE.—D. D., a native of Martinique, aged thirty years, was

admitted into the hospital in December, 1856, suffering with chancre, accompanied with considerable hypertrophy of the prepuce. The chancre healed under appropriate treatment, but the enlargement of the prepuce remained.

Being anxious to have the size of the organ reduced to its normal dimensions, Dr. Hutchison tied the dorsalis penis artery, for the purpose of producing atrophy of the part by diminishing its vascular supply—that being the principal vessel through which the prepuce is supplied with blood. The ligature came away on the fourth day, and no untoward symptom occurred, except a want of action in the wound, which rendered stimulating dressings necessary. Pressure was applied to the prepuce by means of collodion, containing three grains of iodine to the ounce, which was painted over its surface. He left the hospital June 7th, the hypertrophy being somewhat diminished.

Although ligating the dorsalis penis artery in the above case was not followed by complete relief, the result indicated that the operation may in some cases prove valuable. The suggestion is therefore deemed worthy of being recorded. The arrest of abnormal developments about the face, erectile tumors of the orbit, etc., by diminishing their vascular supply, is well known. I am not aware that the above operation has ever before been performed.—*Ibid.*

4. NOVEL METHOD OF EXTRACTING A FOREIGN BODY FROM THE ŒSOPHAGUS. By *David Rice, M.D.*—Mrs. Field, a lady aged seventy, while eating chicken-soup, accidentally swallowed a piece of bone, the size of an American quarter of a dollar cut into a triangular form. The bone lodged in the œsophagus, about two inches below the top of the sternum. Thinking that it might fall into the stomach, she neglected to apply for surgical aid until the fifth day after the accident. In the meantime, she had swallowed neither food nor drink, both regurgitating into the mouth with every attempt.

I was called the fifth day, to try to remove the bone by surgical means. My first attempt was with a piece of whalebone, the extremity being perforated with numerous small holes, into which were fastened a dozen or more loops, about an inch long, made with small linen twist.

With this contrivance I failed, after many patient trials. I could readily reach the bone, but the loops did not fasten to any point of its angular form with sufficient permanency to enable me to extract it. I could even pass the piece of whalebone beyond the foreign body,—and ascertained that it rested upon the posterior side of the œsophagus,—standing perpendicularly, with two of its corners fastened into the gullet.

I finally took a piece of dry sponge about an inch long, and of such a shape, when dry, as to fill one half of the œsophagus. This I tied to the extremity of my whalebone-sound. Turning back the head of the patient, I passed it down the œsophagus, *in a dry state*, as rapidly as I dared to do, until I was certain it had passed beyond the bone. I then introduced a little fluid into the mouth, which quickly reached the dry sponge, enlarging it to twice its natural size, completely filling the gullet. I drew it out, and with it came the bone, much to my gratification and the patient's relief.—*Dostoa Medical and Surgical Journal*, December 3, 1857.

The Medical Chronicle.

LICET OMNIBUS, LICET NOBIS, DIGNITATEM ARTIS MEDICÆ TUER!

UNLICENSED PRACTITIONERS.—There are few countries where a more stringent law exists against those who attempt to practice medicine without a license, than in this section of the Province of Canada. The course to be adopted in bringing delinquents to justice, as provided by the Act passed on the 10th day of August, 1847, "To incorporate the members of the Medical Profession in Lower Canada, and to regulate the study and practice of Physic and Surgery therein," is so simple, and attended with so little trouble, that it must be matter of surprise to every one acquainted with the fact that quacks should for a day be allowed to take advantage of the credulity of the public, and boldly practice their impositions. The responsibility in matters of this nature rests entirely with the College of Physicians and Surgeons of Canada East; and taking into consideration the very little which has heretofore been done by that body for the advancement of the science of Medicine, it is certainly to be hoped that they do not intend as well to neglect the interests of those who, after having qualified themselves as the law directs, have received licenses to practice Medicine and Surgery in the Province.

The College rigorously exacts from candidates appearing before them a strict fulfilment of all the conditions laid down in their Act of incorporation. They insist upon and must have their "pound of flesh." If there exists the slightest flaw or deficiency in the credentials of the student, he is immediately remanded, and not allowed to undergo his examination until the deficiency, whatever it may be, is made good. Such being the case, has he not a perfect right to expect that the College will

as promptly make use of the power vested in them for the suppression of quackery. Why, he may ask, should they be so alive to the importance and vitality of one portion of the Act, and allow the other to remain a dead letter? Why should their sight be so keen whenever a "ticket" is wanting to complete the number required of a student, and then become so completely dulled, amaurotic in fact, whenever the doings of an unlicensed practitioner is brought before them? The College is much to be blamed for not protecting more carefully the rights of their licentiates; and for not preserving the people from the designs of any ignorant, unprincipled, rapacious fellow, who may choose to dub himself Doctor. As an instance of their dereliction of duty, we need only point to the fact that an individual calling himself Dr. Tumblety has been allowed to practice undisturbed in the city of Montreal for several months, notwithstanding the existence of the following clause in the Act of Incorporation of the College:—"And be it enacted, That from and after the passing of this Act no person shall practice Physic, or Surgery, or Midwifery in Lower Canada, unless he be a person duly licensed so to practice, either before or after the passing of this Act, under a penalty of Five Pounds currency, for each day on which any person shall so practice, contrary to the provisions of this Act; and such penalty shall be recoverable on the oath of any two credible witnesses, before any Justice of the Peace for the district in which the offence shall have been committed, and on default of the payment of such penalty on conviction, the offender may be committed to the common gaol of the district until the same be paid." The faithful enforcement of the law, as laid down in the above clause, would soon eradicate quackery in Lower Canada; for no unlicensed practitioner could possibly afford, notwithstanding his great gains, to pay *Five Pounds currency daily* for the privilege of humbugging a gullible public. Let, then, the College of Physicians and Surgeons see to it, that every one practising in the Lower Province without a license be immediately prosecuted and obliged to pay the penalty to which they have made themselves liable. It is the clear and manifest duty of the Governors and office-bearers of the College to do so, and their licentiates demand and expect prompt action in the matter.

EXAMINATION OF CANDIDATES FOR LICENSE IN C. W.—At a Meeting of the Medical Practitioners in the city of Toronto, C. W., held during the early part of the past month, for the purpose of receiving the report of a Committee appointed to draft a Memorial to the Legislature, praying for the appointment of one Examining Board for the Upper Province;

The Hon. Dr. Wilmer having taken the chair,

Dr. Hodder presented the Memorial reported by the Committee; which having been read, it was moved by Dr. Hodder, seconded by Dr. Wright, that it be adopted.

The Committee appointed to prepare a draft of a Memorial to His Excellency the Governor General in Council, and the two Branches of the Legislature, praying for the passage of an Act for the establishment of a Central Board of Examiners, beg leave to report as follows:

The Petition of the Provincial Board of Examiners for Canada West, humbly sheweth:

That, since the passage of the Act regulating the practice of the Medical Profession in Canada West, various institutions have come into existence, which possess the power, through the provisions of the said Acts, of conferring by their degrees the license to practice Medicine, Surgery, and Midwifery in Canada West.

That the system of allowing different Colleges to grant *all practicum* degrees without any uniformity in the curriculum of studies, and in the standard of qualification, has been found in other countries to operate most injuriously, and is now leading to strenuous efforts in order to procure the same modification thereof as appears to your memorialists to be desirable.

That some system which would ensure a high and uniform standard and qualification in Medical Practitioners in this portion of the Province would be received with much satisfaction by your memorialists, and, they believe, by the medical profession generally.

That by the second clause of the 8th Geo. IV. ch. 3, it is provided that certain persons shall be entitled to obtain the Provincial license to practise the various branches of the Medical Science without undergoing any examination whatever in this Province; whereas no such privilege is accorded to the legal profession, which restriction has contributed, no doubt, to its high and honourable *status*.

That your petitioners believe that placing the medical profession on the same footing as the legal, would have the effect of raising the standard of medical attainments, and encourage that unanimity of sentiment and action so necessary to the advancement of medical science.

Your memorialists therefore pray, That your honourable house will take such steps as may be necessary to obtain the passage of an Act repealing the before-mentioned second clause of the 8th Geo. IV., chap. 3, and every other act or acts that may be inconsistent with the prayer of your memorialists, and providing for the establishment of one examining and licensing body; before which all candidates desirous of practising medicine, surgery, and midwifery in Canada West be required to present themselves for examination, and a license from which shall be the only authority by which any person may practise medicine, surgery, and midwifery, or either of them, in Canada West.

And your petitioners, as in duty bound, will ever pray, &c.

(Signed,)

ED. M. HODDER, Chairman.
JAS. RICHARDSON, Secretary.

After much discussion, in which the Hon. Dr. Rolph bore a prominent part, as the great opponent, it was moved by Dr. RICHARDSON, seconded by Dr. SMALL:

"That the Committee appointed to draft the Memorial just adopted be an Executive Committee to take charge of the Memorial; and that a copy of the Memorial adopted be sent by circular to every member of the profession in Canada West; and that the Committee take any other steps which may be necessary to ensure the passage of the measure."

The chairman having called for the yeas, all stood up except Dr. Rolph, and the resolution was declared carried.

The meeting then adjourned.

As medical education is at present degraded in Canada West, some such action was imperatively demanded. The preservation of the profession from further lowering may be yet obtained through its means. As matters now are, any combination of a few—and the number has been usually less than six, and, in one instance, reduced to about half this complement—who may be stirred up by the ambition to teach or ape the master, resolve themselves into a school, or, more grandiloquently, a college, and, to gratify their personal vanity, issue most unworthy inducements, as small fees, short terms, and little qualifications, to bring together a class of students with whom these inducements are irresistible. Were the injury to cease here, it would be bad enough, but it extends further. These small concerns get affiliated or incorporated with some University desirous of encumbering its previous dull machinery; and with the *prestige* of this connexion, their powers now become absolutely destructive. Receiving the ability to grant degrees,—and these conferring upon their holder the right of license, being *ad practicandum*,—and desirous that they should be considered well patronized, they withhold not these privileges from any who have the hardihood to ask or seek them. The result of giving being a mutual benefit to teacher and student,—in time bringing the teacher another student and making the student equal to the teacher. No surprise need then be had that the one man who, ironically, is universal in attainments and extensive in performance, should have stood alone in opposition to a movement intended to remedy this deplorable depreciation of the mode by which medical tuition is imparted and continued in the higher seats of learning, as those of the Old Country or of the Eastern section of the Province. Every school should be placed on equal terms with regard to its curriculum, and no student should be suffered to receive a license who has not completed a fixed term of at least *four years'* study, who has not attended for a same number of sessions, and followed during them two or more full courses on

all the branches essential to constitute by acquisition an accomplished and educated physician. As far as the above petition takes cognizance of these intentions or embraces them within its scope, it is entitled to the support and advocacy of every honest and reflective legislator. And seeing the abuse which is made of University honors, if so these can be styled, and the number of sources in Canada West from which they can be so easily obtained, we conceive that the concluding petition in the memorial is justified, and especially demanded in that section of the country. Without it, the present system with all its attendant consequences of ruin must continue, and increase. But in a properly constituted board, of members totally disinterested and impartial, altogether disconnected with any medical school or teaching, and having no personal interest in its exclusive welfare, before whom candidates must prove their capabilities, we consider the public would enjoy a salutary deliverance from imperfectly educated practitioners; and by affording the power for securing this most desirable end, the Legislature would only be true to its trust and responsibility for protecting and advancing the happiness and welfare of the public whom it represents.

MEDICAL FACULTY OF VICTORIA COLLEGE.—At another meeting of the Medical Board in Toronto, the following disclosures were made relative to the Medical department of this Institution, serving strongly to support the propriety of the remarks made in the previous editorial. This example is given as but one of the illustrations which might be brought forward of the fallen state of professional education in the Western Province. The remarks were fearlessly avowed in the presence of the Dean of the Victoria Faculty, who during their delivery occupied the enviable position of Chairman to the meeting. They speak so much for themselves that further comment from us is unnecessary. We extract them from a fuller report in the *Globe*:—

“**Dr. HODDER.**—It appeared, from statements made at that Board, that Victoria College had graduated young men who had been very little over two years engaged in the study. He considered that four years was by no means too long a time for a person to acquire a proper knowledge of the profession, and was satisfied that no one could properly qualify himself in two. From what had been stated at that Board on a former occasion, it appeared that the Hon. the Dean of the Medical Faculty of Victoria College was the chief examiner of those desirous of graduating—that the examination was anything but a fair and open one—in short, that it was a complete hole-and-corner affair. Dr. Rolph and another gentleman had quietly gone into a room with his intending

graduates, and, after a private hole-and-corner examination, given them their degrees. He (Dr. H.) was satisfied that all the respectable practitioners throughout the country would approve of the action the Board proposed to take with regard to the examining candidates and granting licenses, and that it was the only safe course that could be adopted.

Dr. RICHARDSON—In the United States the present deplorable condition of the profession was chiefly owing to the fact that the students were graduated and licensed to practice medicine upon similar conditions to students of the Medical Department of Victoria College; and the appointment of a General Board of Examiners similar to that proposed to be established here was at this very time being demanded there, as the only protection the public could have against the numbers of incompetent practitioners who were annually graduated by the inferior institutions. Such a measure was loudly called for here, for there was no law to prevent Victoria College from graduating students in two years if they thought fit. It had been denied by the Hon. Chairman, who was Dean of the Medical Department of Victoria College, that that institution had graduated students in little more than two years; but such it had been stated to him was the fact, by a gentleman on whose veracity he could rely, and the Dean's denying it was of very little consequence. He had no hesitation in saying that the Medical Department of Victoria College was a sham and a swindle from the beginning. Year after year it had published false statements, intended to mislead. After begging of every medical man in the city, and many in the country, to accept a professorship, and after all refused to have anything to do with the Hon. Dean of the Institution over which he presided, that gentleman published, one year, the name of a gentleman who had never had anything to do with Victoria College as a Professor, when he knew at the time of doing so that that gentleman was then in New Zealand! The name of Dr. Brouse, too, had been published, when the fact was that that gentleman had declined the offer of a professorship in the College, and had never entered it.

Hon. Dr. ROLPH had not offered a chair to Dr. Brouse.

Dr. WRIGHT.—That is perfectly true. Dr. Rolph employed others to make the offer.

Dr. RICHARDSON.—Yes, I believe Dr. Wright. That is the way in which Dr. Rolph acts; his old trick. Another gentleman's name had been published as professor of surgery, when the fact was that that gentleman lived some miles in the country, and had not given a single lecture during the session. One gentleman who had been so unfortunate as to accept a chair under the Hon. Dean, had been pelted out of the

school with candles by the students; and one of the present staff of professors, who was himself a student of Victoria College, last year, had stated that he was ashamed of the degree conferred upon him by Victoria College; but as it gave him the license to practice, he did not care a d—n. And so it was with most of those holding degrees in medicine from Victoria College. They were ashamed of the institution; but had the license to practice, and that was all they cared for. He could tell those young gentlemen that they would find their level when they went forth to practice, and that the mere fact of their having a license would not avail them much. They required knowledge; and the little they obtained during two winters at the Medical Department of Victoria College would not by any means fit them for the duties of the medical profession.

Dr. WRIGHT knew that the statement of the chairman (Hon. Dr. Rolph) with respect to Victoria College having conferred a degree, and consequently a license to practice, on Dr. Poole before he had passed the proper time in study, on the importunity of Dr. Aikins, was perfectly gratuitous. [Dr. Rolph could prove it.] Dr. W. was quite satisfied that the hon. gentleman was quite competent to prove any statement he might make. But he (Dr. W.) was aware at the time that the statement was made, that it was, like most of that gentleman's assertions, not true. It was not always easy to catch the hon. gentleman, but fortunately that Board had positive proof before them that Dr. Rolph's statement and base insinuations in this instance were altogether false. The books of that Board showed that Dr. Poole had produced the proper evidence to show that he had been upwards of three years engaged in the study of medicine prior to his presenting himself at that Board as a candidate for license; that he was examined by Dr. Hodder and others then present, passed the necessary examination, and obtained his license on the 8th July, 1854, before Victoria College had a medical department, and nearly two years before the degree was conferred upon him. He appealed to Dr. Hodder to say whether his statement was correct. [Dr. H.—Certainly.] This showed the reliance to be placed in anything from the Honourable the Chairman and Dean of the Medical Faculty of Victoria College."

DEATH FROM CHLOROFORM.—A painful feeling was lately occasioned in Toronto by the melancholy death of Mr. John McChesney. This gentleman called at the operating room of Dr. French, surgeon dentist, to have six teeth extracted, but appeared reluctant to submit to the

operation unless under the influence of chloroform. Dr. Richardson was accordingly sent for to administer it, which he did, first, however, explaining to Mr. McChesney that he took the anæsthetic solely at his own risk. After a short inhalation, the gums were lanced, and, the chloroform having been again applied, the teeth were removed. But as soon as this was done, Mr. McChesney was seen to alter in appearance; his eyes became fixed, the jaws fell, respiration ceased, and the heart's action stopped. Every possible attempt was made to restore animation, but to no purpose: Mr. McChesney was dead. Fuller details respecting his death will be found in the evidence below, taken at the inquest held the same evening, 1st February.

Dr. Tobias French, in reply to the foreman of the jury, described the manner in which Dr. Richardson administered the chloroform, by placing it in a sponge and applying it to the nostrils of the patient. After a short time, the patient began to laugh; asked him the cause, and he said he could not help it, seeing those fellows (meaning us) laughing at him. It was then thought he was sufficiently insensible to commence the operation of lancing the gums. He winced under the lancing; I asked him to lean forward and spit into the bowl, which he did. He did not speak, but groaned several times. I remarked to the Doctor, that he was getting on well. After a few inhalations, the Doctor said it was better to draw the teeth, and my brother did so. He extracted six. The deceased seemed conscious of pain, and struggled in the drawing of the last tooth, and appeared like a person not fully under the influence. I asked him to lean over the bowl, which I held before him, and he spat into it. I then observed a change pass over his countenance, such as to startle me; and I remarked there was something wrong. Dr. Richardson opened the window, and ordered me to tap the patient on the right side, so that he would not swallow any blood. I next remarked a great change, and exclaimed that he was gone. The deceased at this time looked cadaverous, and his jaw fell. We then took him and laid him on the floor, placed a pillow under his head, and made an application of ammonia; also applied cold water to his head, and had the body briskly rubbed. Dr. Richardson called for assistance, and Drs. Russell, Nicholl, Beaumont, and Haswell were brought in. A galvanic battery was also put in operation; but all was of no avail.

Dr. Richardson was examined, and deposed that every precaution was taken in the case of Mr. McChesney, and quoted instances of a similar nature which had taken place in England.

Dr. Haswell.—When I went to Dr. French's, I found the deceased lying on the floor. Respiration had then ceased. Dr. Richardson was

using efforts to restore animation. I assisted, in conjunction with Dr. Beaumont and Nicholl, for about an hour.

At this stage of the proceedings, it was intimated by the jury that abundant medical testimony had been adduced, and no further evidence was taken.

After a short deliberation, the jury found the following verdict : " That the deceased came to his death in Dr. French's operating room, while under the influence of chloroform, which he had voluntarily inhaled for the purpose of getting some teeth extracted ; and that more than ordinary care was used in the administration of the chloroform."

CORRESPONDENCE.

A STUDENT'S LETTERS.

No. IV.

It is my intention to state briefly what qualifications are required for the L. R. C. S. E., as probably some of the students at Montreal may think of coming over to Edinburgh for the diploma. There are not so many courses of lectures required for the degree of the College of Surgeons here as for the M.D. at McGill University ; but there are some *special classes* required for qualification. The candidate must have been engaged for 27 months at least in attendance on lectures, in which three winter courses must be included, or four winters of six and one summer of three months.

The classes required are, of Anatomy, Practical Anatomy, and Practice of Surgery, two courses of six months each. Chemistry, Materia Medica, Institutes of Medicine, and Practice of Medicine, one course of six months. Practical Chemistry, Midwifery, Medical Jurisprudence, and Botany, one course of three months. Clinical Medicine, and Clinical Surgery, one course of six, or two of three months each.

Besides these lectures, he must have attended at least six cases of labour, and produce a certificate to that effect ; also a course of instruction in Practical Pharmacy with a Surgeon, or Apothecary, or Chemist, or Druggist, public hospital or dispensary, and produce evidence that he has been engaged in compounding and dispensing medicines for six months ; or in place of these qualifications, if a certificate be produced of having been for two years private pupil or apprentice to any licensed practitioner, this will be sufficient. There are twenty-four months' attendance on a public General Hospital required likewise, or twenty-one months of hospital, and six months of practice at a dispensary. Extra courses in Natural History, Pathological Anatomy, &c. will be of great

benefit if the candidate should be wanting in some of the minor requirements. There is likewise an examination in Latin and Natural Philosophy, which is required from all with very few exceptions. I did not find the examination in Latin very difficult, but it is as well to look over a little of Cicero "De Natura Deorum," Second Book, or his oration "De Senectute." As you are likewise to get a quotation from some of them, you get likewise two other pieces from some of the classical or those medical authors who wrote in Latin. If you do one piece satisfactorily it is sufficient. The other portion of the examination is very elementary. The days for the final examination are the first and third Tuesdays of every month. I may state, *en passant*, that the candidate for the diploma does not require to attend any lectures in Edinburgh, if he have the before-mentioned qualification. I hope I have not been too prolix in the preceding remarks. I think I have given most of the requirements.

NOW FOR SURGERY.

Mr. Syme has recently attempted to astonish the world by a new operation, but unluckily it turned out a failure. The operation was the removal of the tongue by dividing the symphysis menti, and then making room for the removal of the tongue by pushing aside the divided ends of the bone. The operation was beautifully performed, and the patient did well for three or four days, but he gradually became very depressed and died. Post mortem revealed collections of pus in the joints, liver, and lungs. The Professor said in his Clinical Lecture that had he a fitting subject he would again perform the same operation, as he thinks it was not a fair trial, and that pyæmia may result from almost any operation. Mr. Syme never performs resection of the knee joint; and I have seen many amputations of the thigh for scrofulous disease of that joint, which I am certain would have been resected had they been in London under Mr. Ferguson. I think that this latter operation is not performed here as often as it should be, and that many patients might have had a useful though stiff limb who now go about on crutches.

The operation as performed by Mr. Ferguson I think fulfils every indication. It can not only be easily and speedily executed with little loss of blood (sometimes not more than one or two table-spoonfuls), but also with a happy result as regards the patient. I have seen cases brought into the operating theatre, in which the patient was able to walk about with very little inconvenience; and others, six weeks after having the joint removed, were able to get out of bed and go round the wards, and, in the place of their cachectic, death-like appearance, had grown healthy and fat, even before the limb was yet perfectly cured.

Another operation almost peculiar to Mr. Syme is the removal of the

whole or part of the maxilla. This he performs with neatness and despatch, and is very successful generally in the result.

In this part of the medical world Dr. Bennett has been upsetting all the old theories regarding the treatment of inflammation. He says that bloodletting, except in a very few cases, is positively injurious, or at most of but little avail. The arguments on both sides of the question have been carried on here for some time past with great warmth.

Dr. Bennett has, I may say, no supporters, and hence has all the battle to fight himself. He has been very bitter in his invective against calomel, and in fact the whole antiphlogistic treatment. He says the system requires to be supported, rather than depressed, in inflammation. I was a little astonished, when first going through the wards with the Professor, to find that the routine treatment was "*beefsteak and cod-liver oil*," and he is undoubtedly very successful; but I think the main cause of this is due to the class of patients he meets with, as they are half-starved before coming into hospital, and when the system is thus invigorated disease leaves them. But I fear it would be otherwise if he had to deal with a lot of strong, plethoric agricultural laborers.

He and Dr. Laycock disagree very much about the different diathesis; the latter gentleman holding that if we can find out the peculiar diathesis of the patient we have half the work done, and the former denying even the existence of such a condition. From what I have heard on both sides, I think that each is wrong in being too exclusive, and that by following the middle course we should be nearer the truth.

Dr. Gardiner has been recently trying the hypophoshide of lime and soda in phthisis. This remedy though said to be so successful in Paris, has been the reverse here. In five cases in which they were tried, one case only appeared to derive any advantage,—or I would rather say, suffer no ill consequences. In the four others decided exacerbation of the symptoms came on after their use, which in three cases ceased when they were discontinued. The remaining case never rallied thoroughly, but gradually sank. This might not have been, however, the result of the remedy. The phosphoric acid drink, a great favourite with Dr. Gardiner, appears to act very beneficially as a palliative. It contains phosphoric acid flavoured with *syrupus aurantii*, but not made too sweet. By its use the profuse sweating thirst and febrile symptoms of phthisis have been greatly alleviated, and the medicine is very agreeable to the patient.

In concluding, I may state that I have not yet seen any snow in Edinburgh, and the weather is fully as mild at present as it was at the commencement of the session.

Edinburgh, 4th January, 1858.

[We have received the following letter from a correspondent residing in the Eastern Townships. The charges which he brings forward against three Governors, as aiders and abettors of those who practice without a license, to the serious detriment and loss of the educated and licensed practitioner, are most grave, and should be made the subject of enquiry at the next meeting of the College of Physicians and Surgeons of Canada East. If the parties are found to be guilty, immediate expulsion from the College should be the penalty of their misconduct.]

To the Editors of the MEDICAL CHRONICLE :

Having noticed, with particular pleasure and satisfaction, that you have ever felt a lively interest in the advancement and maintenance of a high standard in medicine in our Province, and exhibited an earnest desire to expose everything relative to empiricism without the profession, and unfairness on the part of the regular practitioner, we have been led to communicate a few words to you upon the state of affairs in a certain locality in the Eastern Townships.

It would be quite out of place to recapitulate the early history and career of our fraternity, and the small remuneration hitherto attendant upon their labours, and the uncertainty with which even that, in some cases, has been obtained in this section. It would be equally out of place to enumerate the scores of assumed medical men who, like a pestilence, have spread their false and pernicious doctrines in times past. It is sufficient for our purpose to speak of the present. We shall, however, go back to the year 1847, when, if our memory serves us rightly, there was an act passed by our Legislature incorporating the profession into a body, with rights and privileges which are well known to all, and which, among other things, allowed to different parts of the Province their share of representatives at their sessions, and a voice in the affairs pertaining to the regulating and conferring of licenses, as well as overlooking the best interests of the profession generally. Out of our ranks at that time the very generous number of three was chosen from the territory now known as the district of Bedford; and it is worthy of note that this number has ever since been elected from the same district. Now it is quite natural to suppose that, in the space of ten or eleven years, something would have been done to suppress the offences which have been practiced upon society, and particularly against the medical profession, with such a formidable guard as all this watching over us; but in its place we find quacks running at loose-ends over the whole country, and the three Governors themselves quietly encouraging it in every instance. Nor is this the whole truth. It is a notorious fact that

these three Governors have each an illegitimate practitioner in their employment, to whom they are giving their daily bread for their services, as hired assistants in their practice, and not as students.

We could coolly tolerate such an unhappy state of affairs, did not our three sentinels take these men into their houses, and protect them in serving what they call their masters; but we do think the time has now arrived when we should expect that every one who has sought and obtained an honorable admission to the profession would discountenance, to the last moment, every individual who savors in the least degree of quackery and humbug.

We have been frequently asked by our friends why it was that the Townships were not better represented at McGill College. Other parts of this Province, with perhaps not greater resources, furnish a good number of young men to adorn its halls, while a comparatively few from this quarter have sought medical instruction at the above-named institution. We have now simply to say, that as long as our young men can with far less expenditure of time, money, and mental effort, obtain the degree of M. D. from our neighbours across the lines, and receive upon their return home the sanction and protection, and even *employment*, of those who are in authority, it is only a rare exception that one will ever approach our own Colleges.

Surely the time may now be said to be safely past when we can any longer plead poverty, or want of facilities at home, as an excuse for seeking an education, whether professional or otherwise, without our limits; for it is well known that there is no place, in America at least, where an equal standard of acquirements is expected of the candidate for honors, or where better opportunities are offered for a thorough medical education, than those of our Province.

We have in these few words endeavoured, though hastily and briefly, to give you some intimations in respect to the state of the profession here. We confidently hope that the College of Physicians and Surgeons will put down those who are now practising empiricism and unfairness; and that before long room will be made for more of our orthodox and acknowledged medical men, and our own Colleges better patronized by our own people.

Truly yours,

A VERITABLE M. D.

District of Bedford, Jan. 3, 1858.

MEDICAL APPOINTMENTS.

SECRETARY'S OFFICE,
Toronto, January 9, 1858.

To be Surgeon to the Volunteer Force of Montreal:—Surgeon Alfred Nelson, M. D., of the Volunteer Cavalry.

Military District Number Nine, Lower Canada.

First Troop of Volunteer Cavalry, Montreal.—To be Surgeon: Benjamin Moreg, Esq.

January 23, 1858.

His Excellency the Governor General has been pleased to make the following appointments, viz:—

Gabriel Balfour, M. D., and Henry Lemmon, Esquires, to be Associate Coroners for the County of Brant.

William Jackson, and Nathan Bicknell, M. D., Esquires, to be Associate Coroners for the United Counties of Frontenac, Lennox and Ad-
dington.

MEDICAL NEWS.

When Dr. Spurzheim had finished an examination of the Ettrick Shepherd's cranium, the latter summarily disposed of the "science": "My dear fellow, if a few knots and swells make a skull of genius, I've seen many a saft chiel get a swapping organization in five minutes at Selkirk tryst."—At a late examination for the degree of M. B., of the University of London, a candidate who was known to profess and practise homœopathy, was rejected.—Geo. R. Gliddon, Esq., formerly United States Consul at Cairo, Egypt, and distinguished for his contributions to antiquarian science, died at Panama, on the 11th Nov. Mr. Gliddon was the principal contributor to "Types of Mankind," and "Indigenous Races of Men," and a prominent advocate of the views of the new school of ethnology.—It is reported that the tomb of Hippocrates has recently been discovered, near Larissas in Thessalia. But as in ancient Greece the name of Hippocrates was something like that of Smith at the present day, strong doubts may be entertained whether they have really found the grave of the old sage of Cos.—M. Geoffrey, the chief physician of the hospital for the insane at Veureuse, has been assassinated by an epileptic patient.—It has just been decided by the Director-General of the Paris hospitals, upon the advice of the physicians and surgeons of these institutions, that every patient admitted into these establishments shall be either vaccinated or re-vaccinated. The Director has applied to the academy of medicine to learn the best means of carrying these measures into execution.