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Part 1.--Original Communications.

GLEN HAVEN WATER CURE, }
Sept. 30, 1850. }

Doctor CHENEY, of Ogdensburgh, N. Y.:

Dear Sir :—I met you last summer. You earnestly solicited me to give publicly my reasons for preferring Central Medical College, located at Rochester, N. Y., to other Medical Colleges in our State. Severe attention to my professional labors, has hitherto prevented me; and now I should fail to attempt such a task, did not letters from others of my friends indicate clearly a wish correspondent to your own. I have just returned home after an absence of four weeks, and with the labors on my shoulders, which must be attended to, I cannot do the thing as carefully as I would like. If, however, any thought which may be uttered, shall stimulate some young man or woman to *right* reason or reflection, it will amply satisfy me.

The Faculty of Central Medical College are my friends. I forbear all allusion to them beyond this mere announcement. That they are fully entitled to the confidence of the public, is my judgment. But their chief merit does not lie in their *fitness* for teachers of young men and women; it consists in the *philosophy* which prompts them to teach.

I prefer the school of the Eclectics to that of the Regulars for two reasons—not to state more.

1st. The Eclectic philosophy is *progressive* in its aims.

2d. It is liberal in its teachings and spirit.

Medicine has as yet but poorly attained that eminence which entitles it to the rank of a science. Strong as is the hold which it takes on man by reason of the dangers which surround his mortal part, and the hopes of protection against such dangers, which it presents, little about it is *certain*. No absurder notion can find its way into the brain of one who takes to the study of medicine, than that the *Healing Art* has reached its culmination. Schools and speculations may have done so, but till Doctors agree better by far than at present, and have become much more practical, modesty of pretension will become them. Truth is progressive as it is imperishable. But little of truth in respect of the *prevention* of diseases, their causes and cure, so far at least as they apply to the human race, is *known* and settled. What men *call* science is often but the fanciful wrapped up in new covering; the workings and seethings of acute brains; "well enough in their way," but not reliable, as the results of wide-spread generalization, based on accumulated facts. A fact is one thing; hypothesis, another thing. The latter may be good in its place, but that place is not that which *fact* occupies. Thinking is good; speculation is admirable; but it is *ill* to put one's fantasies in the sphere appropriate only to established truths, and call these fantasies by the name of SCIENCE. It is as bad to do so in medicine as in theology. It makes men bigots. It cramps their souls till distortion takes the place of beauty, and they fall victims of their theories. Such men are almost always holding foregone conclusions; and are the least calculated to aid a great Art to make its way into the sphere where it may justly and proudly claim to be a SCIENCE.

The greatest boasters in the whole range of educated men are *Doctors*. They pride themselves on their *knowledge* of the laws of life and the sure methods whereby the supremacy of these laws can be maintained. Yet with all their assumed knowledge, they fall into such disagreements as to attract general attention. They part off into cliques and sectional associations, and swear that "knowledge shall die with them." Now their disagreements *prove* the uncertainties that cluster about what they are pleased to call undoubted facts. Anatomy and chemistry, which are departments of medicine, are capable of exact and precise study. But where is the exactness of Physiology? Separate the problematical from the demonstrable, cull the imaginative from that which is proved, and what have you left? Huge volumes would dwindle into primer books. So with Patholo

gy, Therapeutics, and Hygiene. The causes of disease, the infallible mode of cure, the perfect understanding of the means of prevention; what school has mastered these? Are not the farthest-sighted men owls? Daily are they not at their wits' ends? Do not those in health become sick? Do not the sick *die*? The *so-called* Quack, in a given instance, strikes disease square in the frontlet and it falls in the dust at his feet, whilst the *so-called* man of Science makes a feint blow or a false stroke and flees for his life. In another instance the success is *reversed*.

Now the reason why I prefer Eclecticism to the Orthodox practice is easily seen. It avoids all foolish pretensions. Claiming that it has made improvements over the old school, it yet admits the necessity of further progress. And if, in a momentary vanity, it forgets how little the best school of medicine *knows*, such vanity is pardonable; for behind it the spirit of earnest inquiry dwells. Not so with its antagonist. It seats itself with the most pompous gravity, and vows itself to be

“In a State of Grace.”

For it there is no advancement. If it advances, it is because the popular force pushes it on. Mechanicalness is its chief feature. Its path is like the *round robin* of the sailors, having neither beginning nor end. Its practice is routine. Its paths are hard-trodden, till they are grassless, and Death takes his morning airings along that high-way clad in the vestments of a conqueror. The school of the Eclectics admits its imperfections, but cherishes perfection as its aim. The schools of the Regulars swear that they have already attained perfection, and offer their oaths as an ultimate argument.

Notwithstanding my early medical education, I prefer to show respect to those whose philosophy forces the admission that in the intellectual as in the physical world, motion is an element, and has its law; and that in obedience to it, *mind* as matter quickens and makes advancement. With such philosophy as this men must *grow* or *die*. Stagnation is its abhorrence, and it prefers speculation and theory to that intellectual inertness which characterizes the alumni, in many instances, of the old school.

The second reason of my preference for Eclecticism over the routine practice is, *its liberality in sentiment and action*.

It admits the possibility that to-morrow may bring with it wisdom and *light*. These it holds itself bound to honor whenever they appear, and whosoever may be their conductors among men. It stamps as quackish *only* such as, ignorant of what is really known, seek to produce results not

in accordance with law, but in violation thereof. It stops not to inquire *how* one obtained qualifications fit to make him a successful healer of diseases, but only *whether* he possesses those qualifications. Quackery lies in pretension, and assumption of ability to do, which facts will not warrant. Who then can exceed in quackery those who, claiming all skill and all knowledge of the healing art, daily exhibit such wide gaps between their assumption and practice as do the alumni of our *regular* Medical Colleges?

A man lifts up his hand and stays disease. "He is a Quack!" cry a thousand throats, because he "followeth not us." "He knows nothing, because he accomplishes a result in a manner not heretofore made and provided. A capital reason! Admirable, impregnable logic! A man dares to think for himself, and puts his thoughts into deeds; he sets out with a theory, and his practice proves the theory *true*; he is a *quack*, because he found the theory true without leave of the doctors. I have in my eye a set of philosophers—*reformers* they call themselves, Ha! Ha!—who have formed themselves into a Medical Society, and made the terms of membership such as would preclude the admission of their founder were he to apply. They insist that thorough Medical Collegiate Education is necessary, yet he has never entered a College. No diploma written in an unknown tongue hangs in his hall, yet great men have visited him and been cured of their diseases. Learned M. D's. have sat at his feet and bowed themselves before his presence. O Nature! great mother of us all! how near at times thou canst come in making asses of men, the world hath abundant knowledge. Far be it from me to derogate from the advantages of Collegiate medical education; all I ask is, that Medical Colleges recognize skill, aptitude, knowledge, ability, frankly, and without condemning them because they have been acquired in an *unauthorized* way. I love Central Medical College therefore, for the reason that it makes the most of a man. It honors his acquirements, and so honors ~~it~~ itself.

But Central Medical College is worthy of our best regards, for its fearlessness in respect to the *admission of women*. It is the first and only College that admits women. Geneva College admitted Miss Blackwell, but has since refused, so that this College stands without a rival. Had I the time, I would like to give you my thoughts at large on this subject, but pressing duties forbid. I can only say that I rejoice in the opportunity thus opened to make of woman what in the sphere of health she ought to be—intelligent and skillful; and can see in the small beginnings of this

College the opening to results, which shall go far to improve the human race in those physical gifts which precede high intellectual and social elevation. Whilst, then, this College maintains its present character, to the extent of my personal influence, both by pen and tongue, shall I urge students to attend it, and feel certain that all that it promises it will perform.

Wishing you all success in your profession,

And long life, I remain,

Your ob't serv't,

JAMES C. JACKSON.

CHEMICAL PROPERTIES OF THE BLOOD.

BY A. D. SKELLINGER, M. D.

In our last essay the reader will please remember that we considered the general analysis of the whole blood of both healthy men and women, and separately those of Protein, Albumen, Fibrine and lastly that of the red Corpuscles, and their uses. I propose to commence this article by continuing the investigation of the Corpuscles, especially the COLORLESS ONES. These have long been noticed in the Invertebrata, and the lower orders of the Vertebrata, as in them their dimension is much less than the red corpuscles, and even greater in number. But in the blood of man their size is nearly the same, and forming (in health) but about one-fiftieth part of the corpuscles, and being nearly transparent, were not noticed till about the year 1841, through the researches of Gulliver, Addison, and others. Unlike the *red*, they maintain nearly a constant dimension in all the Vertebrata; whereas the size of the red varies exceedingly in different animals—ranging in diameter from 1-337th of an inch in the Proteus to 1-12,325th in the Musk Deer: and in man the size of the red ranges from 1-4000 to 1-2890th, averaging about 1-3200th of an inch. Those of the *colorless* is stated at 1-2500th.

Had I time and space I would be gratified to enter quite extensively into the history of *cell-life*, the production of *aplastic* into *plastic* material, the

relations of the *red* and *colorless* corpuscles in the several departments of vegetable and animal life, the adaptation of the former to the respiratory function, and that of the latter to the general nutritive office, and its relations to the production of fibrine. But in the circumscribed limits of the Journal, which it is proper I should occupy, only a few of the more important facts can be presented. 1st. In all organized beings, from the lowest plant to the lord of mundane existence the *colorless* cells are to be found—undergoing an indefinite number of vital phenomena and generative multiplications of transitory cells—merely preparatory to some permanent development of structure. Not so with the *red*, as their existence is only requisite in the functions of the higher orders. 2d. In the embryonic development of the mammalia, there is a preponderance of the *colorless* corpuscles in the circulating fluids over the *red*. 3d. Their circulation is much slower than the *red*, moving at the circumference of the current, not inclined to adhere to each other, and when viewed in the capillaries in the web of a frog's foot, are observed to adhere to the walls of the vessels, appearing to pass through into the areolar tissue; or, as the distinguished Mr. Wharton Jones says, "there is some reciprocal relation between the colorless corpuscles, and the parts outside the vessels, in the process of nutrition." 4th. Their number is greatly enhanced by any local irritation; and in the plastic fluid in the reparative process of a breach of continuity, and by their rapid multiplication and deliquescence, we have a perceptible *augmentation of fibrine* in the blood of such localities. From the above facts we conclude that the principal *uses* of the colorless corpuscles are minute laboratories of nutritive material, and the production of fibrine.

FATS AND OILY MATTERS—Several varieties of *oleaginous* compounds in the blood have been described by chemists; but the more common are *Cholesterin*, *Serolin*, *Margaric* and *Oleic* acids, some oleate and margarate of potash, and perhaps "red and white solid fats, containing phosphorus."

CHOLESTERIN.—This is one of the natural ingredients of the blood, the brain, spinal cord, bile, and in biliary calculi it constitutes by far the largest constituent. It exists in none of the plants, (save the resin of pine;) but when obtained from calculi (by first treating them with boiling water, triturated till dry, the pulverized residue treated in boiling alcohol, and filtered while hot, and allowed gradually to cool,) it has the appearance of white, sparkling, transparent scales, with a specific gravity about the same as water—soluble in six parts of boiling alcohol—not affected by caustic

potash—fuses at 280° —and as a supporter of combustion, burns with a clear flame, like wax. Its formula is, ${}^{37}\text{C} {}^{32}\text{H} \text{O}$.

SEROLIN.—This was discovered and named by Boudet, as one of the fatty ingredients of blood. It may thus be obtained: 1st. Evaporate the blood to dryness on a water bath, and treat the residue with water so long as any coloring tint is imparted. 2d. Dry, pulverize, treat with boiling alcohol, and filter while hot. 3d. While cooling, this fat is deposited in white flocculi, which should be collected on a filter, and subjected to an ablution with cold alcohol. It is, like cholesterin, *non-saponifiable*,—distinguished from it by the low degree of fusion, (95° to 97°), insoluble in water, cold alcohol, and but sparingly in hot. Ether quickly dissolves serolin. Its composition is similar to cholesterin, but differs by containing nitrogen, as is evinced by the ammonical vapor which is given off by an elevated temperature above the point of fusion.

OLEIC ACID.—This may be obtained from the oleate of potash—which latter compound is produced when preparing stearate and margarate of potash, and remains in solution. It must be separated from the potash by a mineral acid, and washed in hot water. This is an oily fluid, of a clear yellow color, but becomes a solid by congelation at 19° or 20° . It has a rancid odor and taste, very acid properties on litmus; specific gravity 0,898. with the formula of ${}^{44}\text{C} {}^{89}\text{H} {}^{16}\text{O} - \text{H} \text{O}$.

MARGARIC ACID.—This is a component of the blood, and is readily procured from human fat, being an oxide of Margaryl (M.) ${}^{34}\text{C} {}^{33}\text{H}$. The formula of the acid is, ${}^{34}\text{C} {}^{33}\text{H} {}^{5}\text{O}$. The amount of fatty matter in blood varies much, according to the health of the individual, and the quality of food taken, as well as the duration of time since eating. The principal *uses* are to subserve combustion, biliary secretion, and adipose tissues and deposites. Those of a phosphorized nature, probably, bear some relation to the brain and nervous system. The *modus operandi* of their formation is not well understood, but is supposed to be, by some, metamorphosis of other fat, or of albuminous material.

SALTS.—The following salts have been recognized in the healthy blood: Albuminate of Soda; Phosphates of Lime, Magnesia, and Soda; Sulphate of Potash; Carbonates of Lime, Magnesia, and Soda; Chlorides of Sodium and Potassium; Lactate of Soda; and Oleate and Margarate of Soda. I am unable, for the want of *time*, to consider these salts *separately*, but must pass them by with a very brief notice of their *uses*. And, in the first place, let it be premised that, until the nature of the *extractive matter*

is better known, much uncertainty must exist concerning the function of some of the *saline* ingredients. Carpenter says, "The use of the *Saline* matter is, evidently, in part to supply the mineral materials, requisite for the generation of the tissues, and for the production of the various secretions. It is by the saline and albuminous matters in conjunction that the specific gravity of the liquor sanguinis is kept up to the point at which it is equivalent to that of the contents of the red corpuscles; and it is only in this condition that the latter present their proper characters." Hewson, who is generally very accurate in his conclusions, remarks: "That the object of the saline constituents of the serum, is to enable the blood corpuscles to retain their discoid form. Since albumen, without salts, has as little power as pure water in hindering the solution of the blood corpuscles." And it may be added that, by almost universal consent, they are supposed to have much to do in causing or retaining the blood in a healthy fluidity.

EXTRACTIVE MATTERS.—Of these we have three varieties—the Alcohol-Extract, Spirit-Extract, and Water-Extract;—but of their nature, use and composition, to use the language of Carpenter, "very little is known." They appear to "include various substances in a state of change or disintegration, that are being eliminated from the blood by the process of excretion."

GASES.—Under this title we have Oxygen, Nitrogen, and Carbonic Acid. "The late researches of Professor Magnus have shown that the blood possesses a very remarkable absorbing power for these gases, especially for carbonic acid. By freely exposing it to the latter gas, (C-|-²O,) it was found that it could take up as much as 1½ times its bulk; and that, after all its oxygen and nitrogen had been thus displaced, it could still absorb as much as 16 per cent. of its volume of oxygen, and 6.3 of nitrogen, on being exposed to those gases respectively. The usual quantity of oxygen present in *arterial* blood is, according to the experiments of Magnus, about 10 per cent.; but while passing through the systemic capillaries, this is diminished about one-half, so that venous blood does not contain more than 5 per cent. of its volume of oxygen. On the other hand, the carbonic acid of *arterial* blood is about 20 per cent. of its volume; and this proportion is increased in venous blood to nearly 25 per cent. The amount of nitrogen varies considerably, being sometimes as little as 1.7 per cent. of the volume of the blood, and sometimes nearly double that proportion; it does not appear to differ, according to any constant law, in *arterial* and *venous* blood." The carbonic acid of the blood is in part the result of a constant disinte-

gration of the animal tissues, and partly the result of a continual slow combustion which takes place with the O. and C. To the same process we may attribute a part of the nitrogen and oxygen; but chiefly, I apprehend, to the act of respiration. It is by a *combustion* of oxygen and hydrogen, in the various tissues, that Prof. J. R. BUCHANAN accounts for the enormous quantities of urine which is sometimes voided in diabetes—surpassing by several ounces per day all the ingesta, both food and drink! and not as formerly believed by cutaneous absorption.

IRON.—That iron exists in the pure state in the human system may well be questioned. It is an ingredient of hæmatin, as formerly shown, in the form of *peroxide*. Leibig thinks that in the venous blood, it exists as *protoxide*, and as the blood passes through the lungs, it becomes converted into the *peroxide*, and in this manner its *use* is to convey oxygen into the blood, and carbonic acid to the lungs.

Having now presented all the constituents of healthy blood, I propose to enumerate those which are occasionally found; and then, after a brief recapitulation, I shall dismiss the Analyses of the blood, and proceed to the *second* division of the subject, viz: "Pathology."

According to Simon, "traces of the following substances have also been detected in the blood in certain pathological states of the system:"

Sugar— $^{12}\text{C} \ ^{14}\text{H} \ ^{16}\text{O}$; or $^{12}\text{C} \ ^{12}\text{H} \ ^{12}\text{O}$ — $^{-2}\text{H} \ \text{O}$.

Urea— $^2\text{O} \ ^4\text{H} \ ^2\text{N} \ ^2\text{O}$.

Bilin—A principle of the bile, formula not known.

Biliphæin—The same as *cholepyrrhin* of Berzelius.

Glutin— $^{13}\text{C} \ ^{10}\text{H} \ ^2\text{N} \ ^5\text{O}$.

Hæmacyanin—A blue coloring matter found in blood.

Erythrogen.

Hydrochlorate of Ammonia— $^3\text{H} \ \text{N}$ — $-\text{H} \ \text{Cl}$.

Acetate of Soda— $\text{Na} \ \text{O} \ \text{Ac} \ ^3\text{O}$ — ^{-6}aq .

Benzoate of Soda— $^{14}\text{C} \ ^5\text{H} \ ^3\text{O}$, $\text{H} \ \text{O}$; or $\text{B} \ 3 \ \text{O}$, $\text{H} \ \text{O}$, $\text{Na} \ \text{O}$ — $-\text{aq} \ \text{qs}$.

Margarin— $^{76}\text{C} \ ^{75}\text{H} \ ^{12}\text{O}$.

Olein— $^{24}\text{C} \ \text{H} \ ^{16}\text{O}$.

Copper— Cu .

Manganese— Mn .

Silica— Si , $^{48.4}$, O $^{61.6}$ — 100 .

RECAPITULATION.

Protein— ^{40}C , ^{54}H , ^5N , ^{12}O , and perhaps S and P.; or, Leibig's ^{40}C , ^{56}H , ^5N , ^{12}O .

Albumen—Pr¹⁰, ²S, P.

Fibrine—Pr¹⁰, S, P.

Corpuscles, red—Globulin, = Pr¹⁵, S, & Hæmatin ⁴C, ²²H, ³N, ⁶O, Fe.
Colorless Corpuscles.

Extracts—Alcohol, water, and spirit extracts.

Fats—Cholesterin—³⁷C, ³²H, O; Serolin—Not known.

Phosphorized Fats—Margoric acid, ²⁴C, ²⁸H, ³O.

Oleic acid—⁴⁴C, ³⁸H, ⁴O, —|—HO.

Salts—Albuminate of Soda—Pr¹⁰, ²S, P, —|—Na O; phosphates of lime—Ca O, ²P ⁶O, ²eq. basic water; phosphate of magnesia—Mg O, ²P ⁶O; phosphate of soda—Na O, ²P ⁶O—|—aq. qs.; sulphate of potash—KO, S²O; carbonate of lime—CaO, C²O; carbonate of magnesia—Mg O, C²O; carbonate of soda—NaO, C²O; chloride of sodium—Na, Cl; chloride of potassium—K, Cl; lactate of soda—NaO, ⁶C ⁶H ⁶O; oleate of soda—NaO. OI; magarate of soda—NaO, ²⁴C ²⁸H ³O.

Gases—Oxygen, O. 5 per cent. in venous and 10 per cent. in arterial blood per volume; nitrogen—N 2 to 4 per cent. per volume; carbonic acid—C, ²O from 20 in arterial to 25 per cent. in venous blood per volume.

Iron—Fe, OI $\frac{1}{2}$.

Sulphur—S.

Phosphorus—P.

ROCHESTER, October, 1850.

[To be continued.]

ANIMALCULES, THEIR NATURE, DISTRIBUTION AND INFLUENCE.

BY PROF. A. K. EATON.

The study of those minute, invisible creatures,—those infinitesimals of life, termed *animalcules*, has engaged the attention of few, ever among those devoted to scientific pursuits; yet no department is so replete with interest; none so full of astounding developments; none more important in its bearing upon life and health. To know that in all around us, even in matter

to all appearance, motionless and dead; there are worlds of living, moving, life-enjoying creatures, is sufficient to awaken the most eager curiosity and elicit the most careful investigation: but, to know that man, in the very act of sustaining life, is constantly eating, drinking and perhaps inhaling with the air of heaven these living creatures, clothes the subject with a deeper interest and connects it at once with the great study of the *causes of disease*.

Animalcular life is not limited to those situations where the process of decomposition and decay is going on in other animal or vegetable organisms, as we are wont to imagine; but it flourishes even in what we are accustomed to consider the purest elements, and is distributed among the most beautiful, visible forms of matter. Every blade of grass is a wide world in which numberless delicate beings sport away an ephemeral existence. Every flower is peopled with wondrous creatures as visible as the perfume that it breathes upon the air. The limpid waters of the lake and streamlet, the ocean and the purest spring are alike replete with life in its minutest forms. To the animalcular creation, the rain-drop is an ocean: a single leaf is an unbounded world.

It has been said, that probably every particle of matter in the universe has at some time passed through the *laboratory of life*. The microscope has almost compelled us to believe that matter is but a bundle of life, even in those forms that seem most dead. Certainly we shall hardly be accused of exaggeration when we say all the varied forms of matter around us, are either made up of things of life, or the ruins of the dead. The great volume of the earth, each leaf of which is a rocky stratum, unfolds to us an astonishing, yet truthful history of life. Lithographed upon the rock of the "everlasting hills" we find all those forms, mighty or minute, that peopled the pre-Adamite world. Unmistakably imprinted upon the rocky page is the history of those monsters of the ancient earth, ichthyosaurus and iguanodon, the mastodon and the megatherium. Upon the tops of the mountains and in the depths of the valleys, we find the forms of beings now extinct, chiseled by a master hand. Every rock is a monument, or rather a sepulcher in which are buried the relics of departed races. But those huge creatures to which we have referred, are not the only ones that we find fossilized around us. Almost everywhere we see evidences that beings as infinitesimal in their nature as those that sport by millions in the water-drop, sported in the waters that once swept through our present valleys, and swelled above our mountain tops; many a rocky mass that we gaze upon without interest, is a vast accumulation of the relics of animalcular

life,—a vast charnel-house full of the skeletons of beings once clothed with life and replete with enjoyment. Even in the polished opal and the unyielding flint these forms appear, and the atoms that float in the sunbeam were once instinct with life.

These delicate animalcular forms both living and dead to which allusion has been made, are not only of interest on account of their connection with the great history of life as it is, and as it has been upon the earth, but in many respects a knowledge of these is of importance in a practical point of view, and therefore I shall endeavor to bring before the reader the result of a careful investigation in this field of research, and perhaps I cannot accomplish my object more easily than by introducing my own observations and describing what I have witnessed. In so doing I will commence with the examination of a *water-drop*.

It must be confessed that I approached the work with little faith in the invisible world; but, selecting the purest spring in the vicinity, I once devoted the hours of a rainy day to the examination of its animalcular contents. I commenced with this, because it is the purest spring-water that I have examined. The result was as follows:

Moving along in the limited field of the microscope might be seen a class of objects, beautiful in form, graceful in their movements and assuming a variety of shapes. These all exhibited a similarity nearer or more remote to a *boat*. Some appearing like the gracefully formed *skiff*, others like the light canoe and others still resembling in shape the less elegant formed water-craft. The name applied to these delicate creatures is indicative of their shape; they are termed *navicula* (little ship.)

Their resemblance to a boat is not only discoverable in their shape, but in their movement through the water; some move like the skiff when propelled by the process called *sculling*, whilst others glide along with the steadiness and majesty of a man-of-war.

One of the objects thus detected I will describe more minutely. It is termed the *navicula viridis*. When we consider that this little animal is utterly undiscoverable by the naked eye, it is difficult to suppose it any thing more than a particle of matter endowed with vitality, unprovided with that formidable array of organs common to larger animals; yet the microscope reveals to us that this and other animalcules are supplied with nerves, muscles and other tissues; eyes, teeth, stomachs and other organs common to larger animals. Indeed the *navicula viridis* seems doubly blessed, for whilst most of the larger animals are supplied with but one stomach, this

animalcule is provided with two. I was fortunate enough to obtain a side view of one of this species of navicula and was surprised to discover in so small a specimen the two stomachs, the organs of reproduction &c., distinctly marked.

(TO BE CONTINUED.)

NOTE.—The continuation of this article will be illustrated by engravings of animalcules. These not yet being ready for the present number renders it necessary to cut short the article here.

ALCOHOL

BY DR. WM. H. COOK.

Though a great deal has been said of late years, both by the professional and non-professional, concerning the effects of alcohol upon the system, there still remains a difference of opinion upon the subject. The descriptions of its therapeutic action heretofore given are too vague to be satisfactory. One medical writer calls it a "diffusible stimulant;" another, a "narcotic poison." It is said to produce an "exaltation of the mental faculties," and a "true apoplectic state;" but no reasons are assigned for these opposite effects. Now, where there is such diversity of opinion, and uncertainty in description, there must be an error lurking somewhere. In the present case this error seems to be a want of distinction between the primary and secondary, direct and indirect effects. Observations and facts are thrown together with too little regard to their analysis and proper classification. Too much attention is paid to *general effects*, and not enough to *specific action*; and hence the ambiguity and uncertainty in our *Materia Medica* concerning the operation of remedial agents. More definiteness and specification are needed ere therapeutics will be a "demonstrable science."

I have penned the following that I may, if possible, throw more light upon the action of alcohol.

When taken internally, alcohol enters into the circulation, partly by absorption, partly by endosmotic imbibition. As the oxygen is the first to manifest its presence in the system, as will be seen hereafter, it probably

enters by the latter mode, while the carbon is more slowly taken up by the former.

Its PRIMARY effect is to raise the clonic power of the heart and arteries, stimulating them to increased action. The pulse becomes quicker and more frequent, sometimes increasing twenty beats in a minute. And, upon this increase of action of the internal circulatory organs, more blood is thrown to the smaller and more distant vessels, and they in turn are stimulated to increased action, and so the *whole* circulation is hurried.

The blood being the natural stimulator of the system, the consequence of this increased rapidity of the circulation, even in the small capillaries, is an elevation and excitement of all the functions; those organs nearest the vital centres coming under or feeling its influence first, while those most distant feel it last, and in a proportionably less degree.

The brain, and through it the whole nervous system, soonest feels the effects of this stimulus. Preternaturally excited, it acts with a rapidity and vivacity of which it was not before capable. The feelings become livelier and more intense; the sensibilities are keener; the wits are sharpened; ideas flow briskly, and language is by no means wanting. But it is particularly to be observed, as a *remarkable* fact, that the *base* of the brain feels this stimulation in the greatest degree. Hence, we find that habitual drinkers are lewd, profane, quarrelsome and licentious; and never distinguished for intellect or morality. Some *good* men use liquor, but their virtues *will* change to vices if they *continue* the habit.

In consequence of this exaltation of the nervous system, the muscles derive more energy and are capable of more exertion than before; and thus respiration becomes quicker; and probably the heart receives an extra stimulus at the same time.

The *skin* next gives evidence of the rapid circulation. Being abundantly supplied with capillaries, a considerable amount of blood circulates through it. This amount being now raised above the normal standard, the action of the cutaneous secernants is proportionably increased, and insensible perspiration now becomes sensible.

The mucus membrane of the stomach being also fully supplied with capillaries, its function is also increased; for this reason it is argued that a little of it is good after eating.

These effects follow in different degrees according to the quantity taken and the temperament of the taker; a person of the mental or nervous temperament being much more susceptible to its influence than one of the

motive temperament. Let us now enquire into the cause of these effects. Alcohol consists of 4 equivalents of carbon, 6 of hydrogen, and 2 of oxygen, ($C^4 H^6 O_2 - H O$.) The effects of oxygen, when introduced into the system through the lungs are, increased action of the heart and arteries, and more rapid circulation, exaltation of the mental faculties, and muscular energy, and more hurried respiration. These effects, it will be observed, are precisely the same as the above mentioned effects of alcohol; hence we are led to infer that it is the oxygen contained in the alcohol which produces the above effects.

I know that alcohol is considered to be a specific stimulant to the nervous system. But this does not appear to be the case, else why the increased action of the heart and arteries first, and of the mental faculties afterwards? Moreover, the action of the brain depends upon an adequate supply of blood, and that too, properly oxygenated, and the more highly oxygenated the blood, the greater the stimulus it gives to the brain. These important facts are confirmatory of our above arguments.

The *secondary* effects now follow, the system falling into an opposite condition from the first described. The circulation lags, the pulse becoming slow, labored and irregular; the nervous system is depressed, the mind becoming dull, cloudy and confused, and half-formed ideas are uttered in words more or less incoherent and muttering,—sensation is deadened, and the muscles relaxed, scarcely able to sustain the frame; respiration becomes slower and more labored, coma follows, and if the quantity taken has been sufficient, *death*.

The *primary* effects are quick in manifesting themselves, and as quickly pass away, or, as I prefer to call it, are *acute*, while the secondary effects are of the *chronic* type, operating more slowly, but lasting longer.

These secondary effects are the result of two causes, 1st. The depression resultant from the stimulation or overworking of the system by the oxygen. 2nd. The carbon contained in the alcohol.

The extent of the influence of the first cause is proportionate to the extent of the cause itself. The more highly the system has been stimulated, the more it has been over-worked, the greater will be the consequent depression. Where the primary effects have been kept up, by frequent drinking, until delirium is brought on, the system sinks into a state resembling death. But the second cause is by far the most important, and this we will now examine.

The effects of too much carbon in the blood are, enfeebled action of the

heart and arteries, and of course, diminished circulation; the brain and nervous system are more or less depressed for the want of properly oxygenated blood; muscular energy is lost, respiration becomes difficult, and the secretions are checked, and on a post mortem examination, the whole venous system is found to be more or less congested, beginning with the capillaries, and proceeding to the larger vessels. This congestion is found in the liver and mucus membranes of the habitual drinker. These being exactly the conditions in which we find the several parts of the system after the primary effects of the alcohol have worn off, we therefore infer that it is the carbon contained in the alcohol which produces these conditions.

When taken in *excessive* quantities the carbon enters into the circulation before the oxygen has had time to show its effects. Mental and muscular action immediately cease, respiration is suspended, congestion follows, the vital powers sink very rapidly and death soon closes the scene.

When applied *externally* it stimulates the cutaneous capillary circulation increasing insensible perspiration, and thus equalizing the heat; but being very volatile it is dispersed before the increased secretion becomes sensible, unless it is repressed, and it will then produce diaphoresis.

Every practitioner must judge for himself where its use is indicated, and where *contra*-indicated. He can now see *why* it is *good* in prostration of the nervous system and determine how much of it can be safely used, and *why* it is not *proper* to use it, in *inflammations*.

AUGUST, 19, 1850.

A CARD.

HILLS' ECLECTIC SURGERY.

The subscriber gratefully acknowledges the gift of this valuable American work on Surgery, from the Author. After an attentive perusal, our high estimate of his ability as a writer and as a surgeon has not been impaired, and it is but a just tribute when we declare, we are unwilling to exchange it for any other surgical work extant. Every Eclectic medical practitioner should furnish himself with a copy. O. DAVIS, M. D.

Part 2,--Selections.

A NINETEENTH CENTURY REVELATION.

"I am Sir Oracle, and when I ope my mouth let no dog bark." It is a great thing to speak under the sanction of revelation, but to speak that which, being truth, harmonizes with truth, is greater. A. J. Davis, the Clairvoyant, in his new volume of revelations, gives vent to the following:

"A new disease will make its appearance during an autumn not far distant, in both Europe and America. This statement is founded upon the influence which I perceive the lines of *novation* must and will exert on the electric and magnetic imponderables of our atmosphere; and the most susceptible individuals, I perceive, will experience the consequences of the imperceptible change thus occasioned. The disease will be a *negative one*, embracing the symptoms and appalling concomitants of the Asiatic Cholera and Black Tongue; and a similar panic and fatality will characterize its first appearance; but it can readily be mastered by two remedies.

"First, a determination on the part of the individual *not to die with the disease*. Second, by enveloping the patient (divested of clothing,) in a woolen blanket which must be completely lined with dampened mustard . . . (so as to form a general draught and plaster,) and by giving him as much good *brandy as he will or can drink*."

Let quacks who have amassed fortunes by puffing and vending worthless nostrums, now make way for their betters! Let even Old Dr. Jacob Townsend yield the palm to Andrew Jackson Davis, and *Sarsaparilla* bow to *Revelation!*—Quacks have speculated largely out of the aches and ailments of poor humanity, but they never dreamed of turning into gold, maladies that were yet far in the future tense. Here the Revelator has cruelly anticipated all their gains—has described the disease, made out his prescription, and got his pay, while we have yet to wait patiently for some years, for even the first case. Why did he not take pity on the medical faculty and give us accurately the pathology and aetiology, the *true condition and cause*, of the new disease? The Revelator was surely competent, why then was he so forgetful? for we fear that doctors will disagree as to these two important points then, as they do now, about even simpler diseases. What a pity that so grand an opportunity to aid the cause of true science, was let slip!

But the disease. No immortalizing essays can be written upon its treatment—no fees pocketed, except for the actual labor in the case. Why did not a kind Providence enable some *needy philanthropist*, a century ago, to make a few dollars, and so keep himself above the vulgar necessity of honest toil, by divulging the symptoms and treatment of Cholera? Truly this is an "age of improvement."

As the world now goes men will adopt a part of the treatment prescribed, "with a looseness;" but then, that mustard plaster! Did the writer know that in all probability it would produce gangrene of the entire surface before reaction could be well brought about from so low a state of collapse as must attend this disease of double-distilled malignity—this *Black-tongue Cholera*? But perhaps "the influence of the lines of novation on the electric and magnetic imponderables of our atmosphere" will set that matter all right. Perhaps mustard flour, instead of being a dangerous article, will be used for making wedding-cakes and "snaps" when that time comes. Oh! ah! to be sure! "*Verbum sap satis!*" which is being interpreted, "*great words can be sappy enough.*"

But there is one point on which the writer of this must gratefully confess vast enlightenment. He did not know that there could be in nature such a thing as "good brandy." He knew that wheat could be "good," and air could be "good," (provided, of course, it were not the air of a church or schoolhouse, or some such privileged place,) and he recollects having heard some very heathenish backwoodsman, long ago, jabbering something about "*good fat pork, and mince-pie,*" but till now, although he knew brandy might be strong or weak, adulterated or pure, yet, such was the simplicity of his heart, he did not once imagine it could be "good." Temperance advocates may now rest from their labors. They have had a hard time of it, poor fellows, and all to no purpose, for they have just learned that brandy, at least, is a "good creature of God," and that when they get the plague they must drink all they "will or can." Father Matthew will no doubt, before he retires from public life, start a subscription, and head it liberally himself, to present his Clairvoyant benefactor with a well stored cellar of the "choicest brands," as a token of substantial gratitude.—*Am. Water Cure Reporter.*

MEDICAL INTEGRITY.

It has been well said, that "an honest man is the noblest work of God." This is emphatically true, whether considered in relation to the ordinary commerce of mankind in dollars and cents, or in an appreciation of mental and moral worth, and the applicability of the various materials about us to the production of happiness, either through the medium of the physical organization, or through the mental emotions.

How morally beautiful is the character of that man, who perceives and commends the real excellencies of right principles, men and materials;—who sustains a defence of these principles and materials, in the midst of opposition, and at the loss of popularity and pecuniary gain,—openly contending for the right, until it becomes respected!

It is such a work as this which characterizes the truly great and honest

man. A combination of the intellect, energy, integrity and benevolence of such men will ultimately place any system of measures, calculated for the best interest of men, (however despised or unpopular,) in a position of respect and prosperity. Such minds will exhibit our system what it truly is, taking higher, holier, and more humane ground, than characterizes the popular practice, which has slain its thousands.

This desirable work would soon be accomplished in regard to every philanthropic enterprise, and especially the reformation in medicine, if all who have named the name were of this stamp. There are numbers, who have assumed the practice of medicine on the reformed plan, who have no higher views or motives than the love of gain or name, and in whose hands our most efficient remedies suffer reproach,—remedies which have mainly been instrumental in crowning our labors with abundant success, rescuing thousands from an untimely grave, restoring the joyous inspiration of health to multitudes of living spectacles of wretchedness, and giving our system the character of the true, scientific, healing art. For instance, lobelia inflata, that valuable article, against which the anathemas of the Allopathists and the ridicule of their followers have been so long hurled, is one almost indispensable in the cure of chronic and of acute disease, especially when of an inflammatory character,—one for which a substitute has not yet been found, and the virtues of which are not yet half appreciated, even by many reformers themselves,—an article to which thousands owe their existence, by its rescuing them from the deadly fangs of mercury. Many individuals, while secretly using this and other articles of the *Materia Medica*, in their practice,—articles upon which their success, to a very great extent, depends, will, in the presence of their patients and others who are prejudiced against them, deny their use, and openly ridicule them, pretending that they have something that will operate far easier and better. Thus they destroy the faith of others in the medicinal virtues of these remedies, and pursue a course calculated to foster already existing prejudices, and cast an influence that will jeopardize the lives of many who would, in due time, under honest and fair instruction, have embraced our treatment in the hour of danger and wasting disease.

In what light such characters stand to the noble minds who have defended the truth, regardless of fame or name, let the enlightened judge.

Let such forever abandon all pretension of belonging to the company of those leading reformers, who have openly declared their principles, and fought their way through all manner of scorn and derision, at the expense of self-interest, and who have lived to see, as the result, the principles of their systems exerting a permanently controlling influence upon the minds of the community—being honored and embraced by many of the most intelligent and benevolent of the land. Let such remember, that they are sowing the seeds of their own downfall, and will soon reap the reward of their doings, in finding their true position outside of the ranks of the reputable, philanthropic, responsible, business men. They are despicable in the eyes, not only of their friends, but even of the intelligent and liberal of an opposite faith.

For the reputation of our cause, it becomes the truly great and self-

sacrificing to keep a watchful eye to influences like these, from whatever source they may arise; while true encouragement should be given to all honest, persevering and faithful spirits. With the latter only, can our cause be safely trusted, and upon their efforts alone does success depend. It is they only who can be the means of establishing true principles, and of placing a correct system before the people, in such an attitude, as to receive general adoption and support.—*New England Botanic Medical and Surgical Journal.*

CHEERING PROSPECTS.

Since our last issue, we have been engrossed by letters and applications from students, to learn more in relation to the arrangements for the winter session of Medical lectures. Many of these we are unable to furnish with a written reply, and send them our annual announcement. There are some points of inquiry, however, which we feel at liberty to reply to in a general manner. A student from each Senatorial District is entitled to attendance by the payment of the Matriculation fee; those, however, admitted to this privilege must be promising, indigent young ladies or gentlemen, who are to be so recommended by a Justice of the Peace or Judge of the county in which they reside.

It has been the custom for such to pay the Demonstrator's fee, whether they avail themselves of the advantages of the dissecting table or not. Also, graduates in medicine, clergymen and theological students are admitted upon the same terms.

Good board can be obtained for two dollars per week; but many students prefer to club together, hiring a suitable room, reducing their actual expenses from six to eight shillings per week. Those who desire can board as cheaply here as they can elsewhere.

We shall be prepared to open the Anatomical rooms as early during the session as any desire, for we have already secured *material*, and an ample supply is guaranteed. This is a very important item to those who desire to prosecute anatomical inquiries, and we are happy to announce to those who did not enjoy this privilege so fully last winter as was contemplated, that they can now spend such a portion of the coming term, as they deem necessary in perfecting their acquaintance with medicine. The

dissecting rooms will be under the charge of a skillful demonstrator, who will attend to the interests of those who desire his special instructions.

Our Lecture Halls are amply large and commodious, with the chemical laboratory, dissecting rooms and other necessary apartments contiguous. From our old friends and from strangers we have been highly gratified to receive such flattering encouragement, not only by letter, but by personal applications. We must confess we never before witnessed so much anxiety and interest in our welfare, and never before were so flatteringly encouraged. Already a number of students have arrived, and are awaiting the commencement of lectures. We wish to say to those who purpose attending the forthcoming session, please signify the same to us as early as convenient; and to all those who make application as district candidates, to forward the same without delay. We would also remind all students of the necessity of punctuality on their part, to be present at the opening of the term. Public introductory addresses will be delivered, which are generally occasions of interest. It is also desirable, as the lectures on the several departments commence and proceed simultaneously. The disadvantage of late attendance cannot be remedied during the session. Let all, therefore, unite with us in our first labors, reaping the advantages of a full course of medical instruction.—*N. Y. Eclectic Medical and Surgical Journal.*

FEMALE DEPARTMENT.

When our College enterprise was first rendered available to those ladies who desired to acquaint themselves with medicine, although struggling under many embarrassments, and lacking many desirable facilities which would aid in their education, yet we were highly honored by their attendance and cordial support. Since that period we have endeavored to supply ourselves with every advantageous circumstance, and have secured the services of Mrs. L. N. Fowler, M. D., who will take charge of this department, and assist them in their studious duties. The female anatomical dissecting room will be exclusively under her control, and every attention will be given to render their investigations pleasing and profitable. We have been gratified to learn the interest which is manifested on these subjects, and can already predict a full attendance in the Female Department

of Central Medical College. Beside those who were with us last year, we have received applications from several other ladies who intend to acquaint themselves with the science of medicine.

Those anxious to attend for the purpose of perfecting their anatomical and physiological knowledge, cannot find a more select opportunity or enjoy greater advantages for these laudable purposes. These branches of science are usually very illy and imperfectly taught, and we hope we may be able to do greater justice to them; to give them the rank and importance in the education of females, which their claims justify.—*N. Y. Eclectic Medical and Surgical Journal.*

CHANGES IN FACULTY.

We notice some changes in the Faculty of the Eclectic Medical Institute of Cincinnati. I. Gibson Jones, M. D., of Columbus, O., has been appointed to the chair of Theory and Practice of Medicine, rendered vacant by the death of Prof. Morrow. He was formerly an associate professor in the Worthington school, and a pioneer in the cause of reform. We congratulate the friends of the Institute and of Medical reform, on their success in obtaining one whose previous labors in connexion with the college enterprise, has secured for him the confidence his abilities have won.

The chair of Medical Chemistry has been assigned Prof. J. R. Buchanan, in connection with Cerebral Physiology. Prof. B. L. Hill, in addition to Obstetrics, also occupies the chair of Surgery.

The chair of Homœopathy has been abolished. The Institute with great magnanimity, recognizing Homœopathy as a contribution to medical science extended to them the privilege of presenting their peculiar views to the students, through an eminent physician of that order; yet it was found that the parties could not harmoniously co-operate. A party governed by one idea alone, and rejecting everything else, will not harmonize with Eclectic Reformers who hold fast to the results of experience, and discard practical errors and false philosophy.

There have also been some changes made in the Faculty of Central Medical College. The professors of Physiology and Surgery have resigned

their chairs, and we are happy in informing the friends of the College that their places have been filled with able and competent instructors. Prof. Dolley who fills the chair of Surgery is a graduate of the Eclectic College at Cincinnati, and has had extensive experience in his profession; he is a judicious and conscientious practitioner, whose instructions based upon positive knowledge, and cautious examination of facts, cannot fail to make a deep impression and to prove to the student a safe and successful guide in the practice of Medicine and Surgery.

Levi Reuben, M. D., has been appointed to the chair of Physiology, and we are happy to congratulate medical reformers upon the accession. Prof. Reuben is well known to many, by his writings and arduous labours in the cause, and he is now the able and talented editor of the American Water Cure Reporter. As an instructor he is terse, lucid and comprehensive, and well adapted to fill the chair assigned him, to the advancement of the interests of the college and of medical progression.

The services of Jared H. Tilden, M. D., have been secured as Demonstrator of Anatomy, and we are happy to assure students who design attending, that ample *material* is on hand and will be secured, sufficient to give all the benefits of that important department.—*N. Y. Eclectic Medical and Surgical Journal.*

Part 3,--Editorial.

MEDICAL EDUCATION.

Those in search of a liberal education in medicine, must be ready and willing to receive truths from different sources, and estimate their worth according to their successful applicability in practice. Formerly a doctrine was considered authentic if it was only propounded by certain schools; and it was almost universally adopted by their sectarian followers. Now it must be proved of practical utility, requiring confirmation by a successful experience. The most successful class of practitioners will eventually become the most popular ones and will be acknowledged and sanctioned by public sentiment. To become successful, we need not inquire whether our ideas

are of the old orthodox stamp bearing the approving signature of a powerfully organized party, or whether our principles are new or old or our practice novel or not. The main question at issue is, are we correct in our resolve, and is our position right? Have we assumed a proper attitude and are we in the direction of truth?

As Eclectics, feeling willing to investigate fully every principle and practice, selecting from all liberally, yet we should exercise a *sound discrimination*. The tendency of partyism is to ask and constrain an unqualified assent to sectarian views. The tendency of Eclecticism is to the generous exercise of a tolerant and credulous spirit toward all practices, candidly weighing their pretensions. This should the student also do. The rational doctrines of every practice should be considered and the valuable of all appropriated for his use. Instead of being confined to a creed, he should willingly inquire into the merits of different systems, and select those practices that accord with success.

The schemes of no party trammel his progress, and the freedom of investigation and original acquirements command a confidence and self reliance which attends a brilliant career of professional successes. Freedom of opinion must be secured to the student of medicine.

Another important consideration which should weigh in the minds of those who have made medicine their chosen calling, is to avail themselves of the experience and improvements of those who have been able to substitute safe and efficient means in lieu of the dangerous and heroic measures which are advised by the common practice. The discovery of these important remedies together with their correct and successful application, being more than a substitute for the dangers of the mercurial and depletive practice, is an attractive feature of Eclecticism. The use of destructive means and depletive measures have been attended by a fearful loss of life, beside, those that survive their influence, are wrecks of humanity, their life-like vigor impaired, with ruined constitutions, seek an early grave. A beneficent reform is spreading; Homœopathy and Hydropathy are convincing the world that those harsher means are unnecessary, while the Eclectic profession are demonstrating there are mild and effectual substitutes, without resorting to ultra measures or extravagant doctrines. Indeed the improvements are so great and success so general, that the most authentic reports, when compared with the ordinary practice, appear almost incredible. Not only are our means sufficient to warrant all the good effects attributed to mercurial preparations, but we have demonstrated that general blood letting

is wholly unnecessary, a barbarous practice, a relic of past experience. These important reformatory features have been substantiated by the experience of thousands of practitioners, and prove of vast superiority over the modes of treatment which are now inculcated by the common practice.

The improvements though novel are real, and demonstrate the absurdities of the past. Not only in these, but in other particulars, almost innumerable do we advocate a reform. Still we contend for improvement, for daily progress by scientific research. Investigation must hew the pathway of young physic. New truths must be registered on our journal of progress, which will conflict with the cherished errors of time; and those who desire to aid in the progress of science and the development of the true interests of the medical profession, we ask to unite their influence with Eclectics and move onward in the line of improvements, renouncing the errors of the past for the new and glorious truths of the present.

SECOND ANNUAL MEETING OF THE CANADIAN ECLECTIC MEDICAL SOCIETY.

The second annual meeting of the Canadian Eclectic Medical Society, convened in the city of Toronto on the forenoon of Saturday, the 21st of September, 1850—the President, Dr. John G. Booth, in the Chair. ●

The minutes of the last meeting being read and approved, Benj. L. Hill, M. D., Prof. of Surgery in the Cincinnati Eclectic Medical Institute; S. M. Davis, M. D., Prof. of Theory and Practice of Medicine in Central Medical College; A. D. Skellenger, M. D., and Jared H. Tilden, M. D., were duly elected honorary members of the Society, and cordially invited to assist in the business of the meeting. After which, a conference of much interest occupied the members till noon, when the meeting adjourned till 2 o'clock, P. M.

AFTERNOON SESSION—IN ORDER.

The meeting being resolved into a Committee of the Whole, for "*Good and Welfare*," Prof. S. M. Davis in the Chair, the afternoon was spent in an unusually interesting manner, of which we can only give a naked outline.

- Prof. Hill, on being called upon, gave the details of his observations, made, during a tour through the west, which he had just completed—exhibiting in a remarkably lucid and highly interesting manner, the results of several modes of treatment adopted in the cure of disease, by different Eclectic practitioners; showing not only the results, but also their philosophical causes, rendering the address deeply interesting, and, at the same time, eminently valuable—points of excellence which were duly appreciated by the meeting, and appropriately acknowledged by a cordial vote of thanks.

Prof. S. M. Davis was next called upon. In his address he dwelt, with great effect, on the means to be relied upon in obtaining just medical toleration, and, on what was requisite in order to elevate the standard of reformed medical practice in Canada; showing the immense importance of urging young men of talent and good judgment to enter immediately upon a thorough and efficient course of Collegiate instruction, now so easily obtained at Cincinnati, at Rochester, or at any other one of the now numerous Eclectic Medical Colleges, that Canada may be furnished with a suitable number of Eclectic practitioners, prepared to demonstrate the superior advantages of their system, in its application to every department of the medical profession. The whole address was so full of interest and importance as to call for a special vote of thanks, as in the preceding case, which was accordingly carried unanimously.

Prof. Hill begged the privilege of supporting most cordially the views of Prof. Davis, in relation to the importance of thorough professional training, and the necessity of promoting it by every available means; urging the duty upon every advocate of medical reform, in Canada, by many weighty and irresistible arguments.

Dr. John G. Booth followed, adding his contribution to the interest and profit of the occasion; giving the result of his treatment in a variety of cases, with a synopsis of the remedies employed in each case; and closed his address by presenting a considerable amount of theory, on the causes of disease and the means of its eradication from the system; designed as subjects of discussion for those who should follow him in addressing the meeting.

A. D. Skellenger, M. D., being called upon, delivered, in a very animated and happy manner, his views on several theories advocated by those who preceded him, and contended earnestly in favor of pursuing a generous and liberal policy towards the practitioners of the old school; arguing that

a free interchange of professional courtesy would have a powerful influence in leading all parties to the altar of TRUTH, a result which every philanthropist should labor most assiduously to reach, at the sacrifice of a thousand minor considerations.

Dr. Orin Ford, on being called upon, dwelt, at considerable length, on the great importance of watching critically the constitutional idiosyncrasies of every patient; and insisted earnestly on the necessity of withholding powerful local applications in seated chronic affections, till the physician had, by a judicious general treatment, subdued every aggravated constitutional symptom; contending that an earlier energetic local treatment would be much more likely to produce the worst of consequences than a favorable issue. Corroborative of these views, the doctor gave the details of several highly critical cases, in which his general treatment had completely eradicated the local disease, rendering further treatment quite unnecessary.

According to the indications of the above outline, the afternoon being spent, the meeting adjourned till Monday, 8 o'clock, A. M.

MONDAY SESSION—IN ORDER.

The Meeting proceeded to the election of officers for the ensuing year, which resulted in the due election of Dr. JOHN G. BOOTH, Pres't; Dr. ORIN FORD, Vice Pres't; Dr. S. F. URQUHART, Rec. Sec'y; ROBERT DICK, Cor. Sec'y and Treas.; and ARCHIBALD MCCOLLUM, Assistant Cor. Sec'y.

VICE PRESIDENTS AND DIRECTORS.

Canada East—Dr. S. Gregory, Vice Pres't; Dr. R. D. Rugg, R. McConnell, Esq., J. Manning, Esq., and Captain Flower, Directors.

Eastern District—J. Carman, Vice Pres't; Dr. J. Wood and Dr. A. Knowlan, Directors.

Bathurst District—M. McDonold, Vice Pres't; W. McGee, Esq., Dr. A. Clark, and A. Stephenson, Esq., Directors.

Johnstown District—P. Scofield, M. D., Vice Pres't; A. Parish, Esq., Dr. R. Steadman, Dr. Howey and Dr. J. Howard, Directors.

Midland District—Dr. E. Ash, Vice Pres't; Dr. D. Ash, Dr. J. Ash, Dr. Kilburn and Dr. Sheriff, Directors.

Victoria District—William Smith, Vice Pres't; Stephen Goldsmith and Rev. J. Gemile, Directors.

Prince Ed. District—Dr. Botfield, Vice Pres't; Dr. Barrenger and G. A. Sergeant, Directors.

New Castle District—Dr. Clark, Vice Pres't; Dr. Patterson and T. Clark, Directors.

Home District—Dr. Phillips, Vice Pres't; T. Lawson, Esq., and T. W. Anderson, Esq., Directors.

[In the Western Districts, Vice Presidents and Directors will be appointed as soon as the names of suitable persons are known to the Secretaries.]

The above named officers having been duly elected, it was unanimously

Resolved, 1st. That the grateful acknowledgments of this Society be respectfully tendered to Professors S. M. Davis and O. Davis of Central Medical College, and to Prof. Benjamin L. Hill, of the Cincinnati Eclectic Medical Institute; also to A. D. Skellenger, M. D., and to J. H. Tilden, M. D., for the deep interest which they have manifested in the prosperity of our infant Institution.

2d. That it is the duty of the members of this Society, to turn the attention of young men of suitable talent to the Eclectic practice of medicine, and to encourage them to enter immediately upon a regular college course of training, in the Rochester or Cincinnati Eclectic Medical College, till circumstances warrant the establishment of an Eclectic Medical College in Canada.

3d. That upon examining a clear and explicit statement of the affairs of the Unfettered Canadian, submitted to this meeting, it is fully evident that the eight numbers already published, have cost fifty-five pounds fourteen shillings, or two hundred and twenty-two dollars and four shillings in cash, more than the whole amount of subscriptions paid up to this date; rendering it the imperative duty of every subscriber to forward the amount of his subscription immediately, it being unreasonable to require the publisher to advance that sum in addition to five months unrequited toil.

4th. That the third annual meeting of this Society, commence at the call of the President and Secretary, in the city of Toronto, during the session of the next Provincial Parliament.

ROBERT DICK, Cor. Sec'y.

MEMPHIS INSTITUTE.

Our slight acquaintance with some of the professors of this Institute led us to suppose that they were on the broad platform of liberal medicine, teaching it in an eclectic temper. But it seems such an impression abroad is doing them injury, and hence they have taken pains to disabuse the public mind of this mistake, and request their professional brethren to contradict such reports, at the same time defining their position.

In their last Monthly Bulletin, after alluding to these reports, they sum up their remarks in the following quotation:

"Thus it will be perceived that the Professors of the Memphis Institute are not "Eclectic" nor "Botanic," but that they expound the doctrines of Medicine as taught by Physick, or Rush, or Mott, and all those who are considered standard in Medical science. But instead of affiliating with any of the new fangled *isms* of the day, they stand as far aloof as any College in this country, and consider themselves as emphatically orthodox, and as decidedly Allopathic as any of our brother colleges in Philadelphia."

From another portion of the same paper we clip the following:

"The school is Orthodox—standing upon truth and medical science. It eschews all *isms*, and is to be held of the Allopathic class.

"We make this remark, as we learn there are those who would misrepresent, if they dare do so, its position!

"Students come on! It is a *Southern School*—for all who like medical science it is the school!"—*Memphis Daily Express*.

Although we are pleased to announce the progress of reform and the demand for Eclectic Medical Colleges, yet we are by no means willing to misrepresent the position which any institution has assumed, and hence we take pleasure in endeavoring to correct any impression which we may have been instrumental in spreading, that the Memphis Institute is an Eclectic or *Liberal School of Medicine*. We had not considered it as a Sectarian College, but they decide, they "*consider themselves as emphatically Orthodox and as decidedly Allopathic as any of our brother Colleges in Philadelphia.*"

HILLS' ECLECTIC SURGERY.

We have been anxiously awaiting the appearance of this Surgical work, and are, at last, gratified to number it among the volumes of our library. It is a book of nearly 700 pages, handsomely bound, and presents an inviting appearance.

We have given it a cursory examination and are highly pleased with the concise and able manner he has treated the subjects. Many of his views are original and indeed most of the treatment recommended would strike a reader familiar with the ordinary text books, as novel. He treats his subject in a plain, easy style, altogether practically, avoiding display of language or any attempt at copious expression.

The author says his "aim has been to present the practical resources of the healing art with such fulness as will enable the beginner clearly to understand every subject, and find the directions a sufficient guide in every day practice. He has at the same time endeavored to be brief and comprehensive that the work might not be too voluminous. While all that is peculiar to the American Eclectic practice has been given fully, the measures more commonly resorted to have not been overlooked. In the operative part, though the descriptions are brief, they are amply sufficient to enable the practitioner who has an adequate knowledge of Anatomy, to undertake practical Surgery."

We cheerfully commend the work to our Eclectic friends, both as a text book for students, and as a consulting guide to practitioners. Hoping their patronage will be commensurate with its merits, we solicit for it the attention it richly deserves.

AMERICAN REFORM MEDICAL INSTITUTE.

We have just received the announcement of this Institute by which we learn that it was chartered March 1850, by the Legislature of Kentucky, and is located in Louisville. It will be supplied with six professors, whose tickets amount in the aggregate to \$105. The lectures commence on the first Monday in November and will continue twenty weeks. We think that sixteen consecutive weeks sufficient time to drill the student, and as long as can be profitably spent, without mental relaxation and invigoration by physical exercise. It strikes us, that an attendance upon a third course of lectures is of more value to him who wishes to acquaint himself thoroughly with the science.

We are informed that Dr. MORROW's work on Theory and Practice of Medicine, nearly finished, will be completed and published by Prof. I. G. JONES, during the coming winter. Dr. MORROW we understand had finished writing on all febrile and inflammatory diseases, both acute and chronic.—The other subjects will be finished by Prof. JONES, his successor, who will also write a biography of Dr. MORROW.

 ECLECTIC SUCCESS IN ROCHESTER.

The subjoined statistics confirm the statements made in relation to the success which has attended the practice of Eclectic Physicians in other cities, in the treatment of diarrhœa and dysentery.

The report is quite incomplete, and we have given only those statements which have been forwarded us.

| | Diarrhœa. | Lost. | Dysentery. | Lost. |
|------------------------------------------|-----------|---------|------------|---------|
| Drs. Hadley & Skellenger have treated of | 64 | 0 | 18 | 0 |
| Dr. Tewksbury, | 78 | *1 | 13 | *1 |
| Dr. Robbins, | 44 | 0 | 7 | 0 |
| Dr. Weyburn, | 42 | 0 | 7 | 0 |
| Dr. Phelps, | 13 | 0 | 27 | 0 |
| Drs. Sabin & Davis, | 72 | 0 | 24 | 0 |
| | <hr/> | <hr/> | <hr/> | <hr/> |
| Total Diarrhœa and Dysentery, | 313 | lost, 1 | 96 | lost, 1 |

It is but just to add, however, that Drs. Sabin & Davis were superseded in the treatment of one patient by a Homœopathic physician, after a favorable crisis occurred and the dysenteric discharges had been arrested. The case terminated fatally. Many patients were those that had been unsuccessfully treated by other physicians, and such generally proved most untractable and difficult to save.

Very many cases of diarrhœa were successfully treated, by one or two prescriptions at the office, which are not included in this list. Only those are reported which proved to be distinctly marked cases.

*Dr. Tewksbury says, in a note, "The two that died were both small children, and had been treated by Allopathic and Homœopathic physicians previous to my being called, until they were given up to die."

 TO OUR SUBSCRIBERS.

Having made arrangements with Dr. ORIN FORD, to secure the regular monthly issue of the four unpublished numbers of this volume, we are delighted with the prospect of being enabled to fulfill our engagement with those friends who kindly trusted the issue of our enterprise, by *paying* for the "Canadian." We thank you, friends, most cordially, for the assistance

which you so freely rendered us, and for the evidence therein furnished, that you love our cause and shrink not from sharing in its burdens, risks and responsibilities. With plenty of such coadjutors, the toil worn advocate of reforms smiles at the difficulties that crowd his path. But while bearing down in his course every form of opposition that his opponents can bring to bear against him, it should be known that he becomes at once weak and powerless, on being compelled to grapple with the apathy, the indifference, or the distrust of his friends;—against these weapons, he furnished himself with no shield of defence, and hence their fatal power in extinguishing the last ray of hope that nerved the soul to successful resistance against every form of anticipated opposition. Trusting, however, that the apathy which affected us was only apparent—that the indifference which wounded us was not premeditated, and aware that our own task, though attended with many sacrifices and embarrassments, has, after all, been but very inadequately performed, we feel disposed to meet our friends on equal terms, sharing with them whatever of blame is connected with the past suspended issue of the “Unfettered Canadian;” and inviting the future hearty, joint co-operation of all who claim the right of choice, in relation to the philosophy and means of health, we gladly resume the issue of our little Anti-monopoly Journal.

The “Canadian” will now be published in regular monthly numbers.—The change in the internal arrangement and style of the work, will, we doubt not, be favorably received—the style being larger, and the number of pages increased from 24 to 32, and as we have now secured the assistance of Prof. HADLEY, M. D., of Central Medical College, in conducting the Medical Department, we hope to satisfy the anxious expectations of all our friends, now earnestly requested to rally at once, and second the generous effort of Dr. FORD, by sending in old and new subscriptions, in all the fulness and promptitude that convenience will, in any way, warrant. Send as heretofore to ROBERT DICK, Box 411, Toronto. New subscribers will be supplied with back numbers. Five Shillings, sent free of postage, will still be received as payment *in full* for the first volume of the “Canadian.”

Our friends will be pleased to learn from the minutes of the second annual meeting of the Canadian Eclectic Medical Society, that the meeting was one of great interest and importance. The absent members have certainly much reason to regret the loss which they sustained in not being present during the sessions of the Meeting. The rest of the minutes will probably appear in our next.