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C. Bell, M.D.

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Part 1.--Original Communications.

PHLEGMASIA DOLENS—BUCNEMIA SPARGANOSIS OF
GOOD—PUERPERAL TUMID LEG.

BY J. BURT, M. D.

The controversy on this truly formidable disease, has enlisted the talent of eminent men on this Continent and Europe, from an early date up to the present time. Some affirm it to be an inflammation of the blood; others an obstruction in the iliac arteries and femoral veins; and, in fact, the theories are almost as numerous as cases of the disease. It is not my purpose in this article to follow out the chimeras of any one, or to attempt to delineate the abominable treatment recommended by all ancient or modern authors; which, if not immediately fatal, uniformly lays the foundation for an impaired constitution. It is bleeding and calomel, and calomel and bleeding, leeching, drastic purgations, &c.; and if the patient survives this course of treatment, she need not attribute her recovery to the skill of her physician, but to the strong constitution which God has given her. As to the general symptoms, they are too familiar to need repetition; but my object in this communication is merely to give my own views on the sub-

ject. Some years since while attending a bad case of this disease, I discovered every evening a return of periodical pains, sometimes most severe in the limb and then again it was in the loins, then the thigh, and so on. From this I was led to suppose that the true nature of the disease was not understood, it putting on the true character of neuralgia. I, therefore, gave her a compound of equal parts saturated tinc. of macrotys, (black cohosh,) and wine of colchici, *sem.*, to take sixty drops every hour until the pain ceased, and then continued once in four or six hours, and at bed time a gentle laxative of rhubarb and soda. When I called the second day I found the drops had relieved the pain and the laxative had moved the bowels; and this treatment continued with bandaging the limbs for ten days, with gentle tonics, performed the cure.

Case 2d. Mrs. A., aged about 30, of a nervous and lymphatic temperament, enjoyed generally good health, was safely delivered of a son June 6th, 1838; continued comfortable until the third week after confinement. Being then called, I found the symptoms, pain in the right inguinal region, with enlargement of labia and the thigh, the latter appearing of a shining white, with more or less pain shooting down to the foot, with nausea at the stomach and costive bowels, with occasional chills. Pulse 120 per minute, countenance somewhat anxious. I ordered a cathartic of anti bilious pills to be followed in four hours, if no evacuation, with castor oil and turpentine. After the movement of the bowels to give diaph. pul. every three or four hours. The next morning found the cathartic had done well; still the feet were enormously swollen, tender and painful, and of a peculiar shining, pearly white; the pain shooting up into the sacrum, the general fever less, pulse about 100 per minute, face pale, and to appearance bloated. I ordered her the marotys and colchicum tinct. once every two hours for six hours, unless relieved before; and if not then, 1-4 of gr. of morphine. After relief to give the drops, 60 every four hours, with gentle laxative of syrup of rhubarb.

On the next morning I found her free from pain, and the limbs looking better; continued the same treatment, with bandaging. In 14 days the patient was well.

Case 3d. Mrs. S., aged 36, of nervous bilious temperament. I was called August 3, 1842, four weeks and two days after confinement, (which was perfectly natural,) and found the right thigh and corresponding labia much swollen; the limb presented a shining white appearance, accom-

panied with much pain in the loins and inguinal region; considerable heat, the patient quite feverish; tongue white, pulse small and about 100 per minute. I prescribed sulphas sodæ and senna, and for an anodyne after the operation, to give 1-4 gr. morphine, repeated every three hours if necessary. Aug. 4th. Found her better as regards fever and pain, although the swelling had extended to the foot, which was larger than both ought to have been; and likewise the left leg and foot commenced swelling, with much pain unless under the influence of morphine. I then ordered the limbs bandaged to the knees, kept wet with spirits and water, equal parts, with plenty of salt dissolved in it. Bandages to be removed every four hours, and the limbs rubbed with volatile liniment. I then omitted the morphine and gave the colchi. and macrotys with orders, if the pain became severe, to give morphine, or if she was feverish to give Diaph. powder. On the 5th, found her remarkably comfortable, no occasion for either the morphine or Diaph. powder. Continued the same treatment, keeping the bowels open and giving gentle tonics, and in twelve days she was attending to her household affairs, quite well.

Case 4th. Mrs. C., aged 30, of a nervous and lymphatic temperament. As regards her labor, I must give it as I have it from the family. It was her first child, lingering quite, child dead, and to all appearance had been so for some time, as putrefaction had taken place. After confinement she seemed to get along smartly until the third week, when she discovered soreness in the left leg, with swelling of the corresponding labia; with fever, shooting pains up the leg into the loins, &c. For three or four days the limb increased in size, assuming the pearly white appearance, and her physician called it *Dropsy!* and commenced and continued the treatment by hydragogues, diuretics, &c. The patient consequently got no better, but became worse. During this stage of things, while the physician declaring her doing well or threatening to puncture the limb or produce an artificial sore, the friends were alarmed, and one morning after the patient had passed a miserable night, and the limb having assumed a gangrenous appearance in spots, the Doctor was sick and could not attend to her. They must seek some one else. Therefore, July 3, 1850, I was called; found the patient pale and haggard in her countenance, restless, pains in both limbs, groins and back, the left leg and foot enormously swollen and of a white, shining appearance; no depression left on pressure, purple spots puffed up, urine scanty, high colored, pulse 120, weak and tremulous; nerves

weak and great prostration. I finally considered it rather an unfavorable case, but commenced the treatment by giving Beach's diaph. powder every four hours, tincture macrotys and wine of colchici sem. *a a*. Of these I gave 60 drops every four hours, alternating with the powders, applying to the limbs *polygonum punctata*, (smart weed,) steeped in water, and the limbs rubbed with whiskey, water and salt.

July 4th, found her more comfortable, having sweat during the night profusely. I discontinued the powders, and in their place gave essence juniper, spts. nitre, dulc. *a a* half a teaspoonful.

6th. Moved the bowels with Beach's anti-bilious physic; continued the same treatment, with tonics, *prunus virginiana* (wild cherry bark,) *apocynum cannabinum* (Indian hemp root,) *gentiana lutea*, rad, with bandaging the limb to the knee, to be kept wet with the whiskey and salt.

7th. Improving; discontinued the diuretic drops; continued the treatment.

8th. Found the patient with *gastralgia*, accompanied with water brash. Omitted the tonic, and gave sub. nitrate of bismuth 10 grs., lupuline 2 grs., once every four hours.

9th. *Gastralgia* gone; continued the treatment; limb growing less fast.

10th. Better; discontinued the bismuth and lupuline; gave the *marotys* and *colchicum* and tonic above. She continued to improve daily; therefore, July 14, discontinued visits.

Aug. 17th, called. The limbs were well, but the patient on the least exercise troubled with bearing down pains, weak back; gave her oil juniper 4 drops, tincture macrotys 20 drops, every four hours, with a powder of beth root 10 grs. At the same time applied a strengthening plaster to the lumber region. This arrested the difficulty, and now (Sept. 1st) she is quite well, and able to attend to her domestic concerns.

MALIGNANT DISEASE OF THE UTERUS.

Mrs. ——— came to our Cure, May 11, 1850. Age 38; fair complexion; light hair and eyes; an active mind and cheerful heart. Her father had scrofula, and mother salt rheum; and to their child they had transmitted that *most enduring*, as well as *most dire* inheritance, a scrofulous diathesis.

She is the mother of two children; three years last February, had an abortion at the third month. Hemorrhage slight, at the time; but from being on her feet too soon, as she then thought, it became severe, and continued six weeks.

Since that time, her menses as she said, had not been regular. Their duration from six to eighteen days, and so frightfully profuse, that the recumbent posture, anodynes, astringent enemas, &c., were of no avail; tampon often the only efficient means. At those times she was always confined to the bed; and often for ten days in succession she was not raised or moved, save on a sheet. Between these attacks, there were intervals, of from one to two weeks, during which time she could sit up some; but had even then continually, what she called the Leucorrhœa, so foetid and profuse, as to require a change of napkins several times per day.

She had not been able to walk for about three years. Whenever she attempted to do so, Hemorrhage ensued. From the fact that the blood coagulated, as well as from the amount lost, was sure it could not be catamenial.

Thinking a bleeding polypus or some other abnormal growth might exist, an examination was made. Was surprised to find the vagina filled, seemingly, with a soft substance, some of which adhered to the index finger, presenting a yellowish white color. On inquiry, learned that she was daily using alum water enemas. This explained the mystery. The alum had coagulated the discharge, and in this semi-solid state, it was retained in the vaginal folds, and about the uterus. The astringent injections were discontinued, and several quarts of cold water used daily, till the vaginal tract was cleansed.

On a second examination, found the uterus heavy, hard, rough, and about four times its normal size: but not immovable, and in no wise sensitive on pressure. A glass speculum was then introduced, into which thin, yel-

low matter rushed so quickly and freely as to obstruct all view. A bit of sponge attached to a whalebone, was then passed into the speculum, by means of which the discharge was absorbed and removed. This being done, the uterus appeared as a shapeless, foetid mass. By removing it from side to side, different portions were brought to view, but not one point of healthful surface to be seen. Some of it black, and deadened; much of it would bleed on slight pressure. Not feeling satisfied with the view gotten by a single tube, a valuable metallic three bladed speculum was procured, which disclosed the whole organ lying below the cul-de-sac, to be enormously enlarged, and fearfully ulcerated. No part resembling the neck to be found. No orifice or any point, to indicate the location of the os uteri. The other organs lying contiguous to this, seemed not to have suffered in the least. The vagina healthy; bowels in good condition; no urinary difficulty; appetite good, and food well digested, the latter was doubtless in a good degree owing to the temperate habits of the patient.

Now for the diagnosis: From whence come the hemorrhage? From the internal or external vessels? From the surface it seemed evident, and this opinion was confirmed by after specular examinations, when there was bleeding, though not so profuse as to obstruct the view. The blood was then distinctly seen to issue in full stream from vessels laid open by ulceration, and which was arrested by the cautery. So also of what had been termed hemorrhage. It was not a secretion of the lining membrane of either uterus or vagina; but an effusion from the ulcerated surface of the former. The true catamenial function had long since been suspended, and induration, ulceration, congestion, one or all combined, had entirely closed the os tincæ.

The sprain which was thought to be the *cause* of the abortion, and the abortion the *cause* of the subsequent uterine disease, were not primary causes, but merely secondary. Doubtless they were excitants, hastening in both cases, the results of changes already in operation.

In proof of this the patient had felt much pain and strange oppression in the pelvic cavity, for some months previous to her last conception; and for six weeks preceding the "misstep," which was soon followed by the loss of the fœtus, there had been slight hemorrhage daily.

Lugol says, "that scrofulous mothers are less liable to carry their offspring full term than others. Though the abortion may seem to arise from

some over exertion, a fright, fall, or the like, yet the tendency existed, and the event at most was only hastened."

There is much truth doubtless in this assertion, for many women possessing this temperament, suffer repeated abortions, under other circumstances the most favorable, and where every possible precaution is taken to prevent such unhappy results. And in those cases where the offspring, have vitality enough to survive.

But to return to the prognosis of the cure in question. Such severe disorganizations had taken place that the patient had passed the curable stage. Then came the *anxious* inquiries was she in an improveable condition? Her lifeless skin, bloodless lip, flaccid muscles, and feeble pulse, told at once scarce enough remained to keep life's wheels in motion. Beside this, the effluvia from the discharge was becoming so fœtid, as to render it almost intolerable to the patient and those about her.

With the hope that the hemorrhage might be checked, and the fetor corrected, treatment was commenced. By means of speculum and sponge, the diseased organ was thoroughly cleansed with soap suds. The dead portions and fungous growths were cauterised with the solid nitrate of silver, and sloughed off. The entire surface was daily brushed over with a solution of nitrate, 60 gr. to the ounce. By the use of chloride of soda, the effluvia was overcome. A general bath at 70° was given the patient every morning; and three or four hip baths of 80° five minutes duration were taken during each day. Both the fountain and vaginal douch were used several times per day.

There being much heat about the back and abdomen, the wet girdle was worn night and day, never allowing it to remain till dry, but changing it often as it became too warm.

Whenever flooding commenced, pounded ice, or cloths wet in ice water were applied over the uterine region, changed often as the urgency of the symptoms, and heat of the patient demanded. Large vaginal enemata of ice water were used, and bits of ice were also introduced. Care being always taken to keep the extremities warm, and never to allow the general circulation to become chilled.

After some weeks the wet sheet packing for fifteen minutes, followed by the cold plunge, was used with decided benefit. Also cold pouring over the back and loins. The patient took no meat, and abstained from all hot and stimulating food or drink.

The more simple preparations of vegetable and farinaceous diet allowed. Under this treatment she slowly, and steadily improved, in flesh and strength. The uterus diminished in size, the amount of secretion lessened, and the fetor entirely ceased. The attacks of hemorrhage less frequent, and less profuse, and much sooner arrested. In a few weeks could bear her weight on her feet, and soon after began to walk a little, by the aid of two persons.

The treatment was continued much the same during the summer, the nitrate being applied less frequently, usually about twice per week.

The first of October she left the institution, able to walk about the house with a cane, up and down stairs, and ride twenty miles per day with ease. She continues her baths at home, and comes to the Cure once in two weeks for local treatment. At each visit two or three fungi are found just shooting out and beginning to bleed, which are readily destroyed by the cautery. The uterine surface is becoming more healthy in appearance, but no similitude in form to a neck or mouth are to be discovered.

The improvement made in this case thus far, has greatly surpassed our expectations, still there seems no good reason to hope that the diseased organ can ever be restored to its normal condition.

In view of what has been done, at the "eleventh hour," we ask what might not have been accomplished by proper treatment three years since, yea, two, or even one? Doubtless tenfold more than now with the tenth part of the care.

Though the disease had steadily progressed from month to month, and from year to year, despite a host of remedies; still no ocular inspection had before been made. Hence the *symptoms*, and not the *disease*, had received the treatment. A constant effort to suppress the effect while the cause existed.

This is the true condition of a multitude of invalid women in all sections. Whilst the delicacy which prevents physicians from making, and the patient from submitting to, digital and specular examinations, is to be respected; the benevolent heart can but deplore and even often censure, the omission in view of the terrible suffering which might have been avoided, had the true condition been timely known. When women are competent to treat the diseases peculiar to their sex, much untold, unmitigated suffering will be relieved, or better still, prevented. May there go not from your College from year to year, a choice band of benevolent

brave, and intelligent women, possessing a thorough medical education. Let such go forth full of good cheer. Though some *men* may scoff at you; yea, some *women* too, for being out of their sphere; as lacking all feminine graces; yet be assured from the suffering sisters, who shall receive relief at your hands, such heart-spoken words of gratitude shall gladden your spirits, which, when weighed with the former, one shall be as fine gold; the other, as "small dust of the balance."

R. B. GLEASON.

FOREST CITY CURE, Ithica, N. Y., Dec. 2, 1850.

ON THE SIMPLICITY OF THE CONDITIONS CONCERNED IN THE PRODUCTION OF NATURAL PHENOMENA.

Introductory to a course of lectures on Physiology and Pathology, delivered before the class of Central Medical College, Nov. 4th, 1850.

BY LEVI REUBEN, M. D., PROF. OF PHYSIOLOGY AND PATHOLOGY.

PUBLISHED BY REQUEST.

Ladies and Gentlemen of the Medical Class:—

Education has been wisely made the business, the necessity, and yet the pleasure of all rational beings. "Live and learn," is a homely adage, and often thoughtlessly expressed; but in it dwells a recognition of the highest law of finite intelligence. And this is not alone true of the individual. There is an incessant unfolding of power in the race, as a race—a larger education, in which every one, conservative or radical, willing or unwilling, is allotted his daily task. Those who think they are retarding the world's progress—its mad bounds into ultraism, as they opine—are guilty of a most ludicrous mistake. They are the *mules* in the march of progress, it is true; but unlike the staid quadruped whose spirit they emulate, even while they think they stand, they are marching, nevertheless, *up* the eminence, and *with* the grand cavalcade, whose leader's eyes have caught the summit-glories of the distant future! Reflect one moment, and you will clearly see that there is not a crusty, conservative, iron-cased Saxagenarian living, whose views are not to-day a very unmistakable *progress* upon, and *reform* of, what they were twenty or forty years ago!

Mankind, in their march through time, may be compared to that vast horde which, led by Xerxes, once moved, a wide, dark, human *mirage*, westward over the plains of Asia. They move on, and civilization embodies, complicates and intensifies about them at every step. In the march of generations, as in that of the Persian hordes, there may be insubordinate minds, who throw advantages in the way of the enemy, and there may be laggards who fall behind and retard the general advancement.—But here arises a difference. The rebelliousness of these churls will no more succeed, than will that of the lagging tide opposite the great luminaries, in wresting the earth from its gravitative center, and hurling it into space, merely because it does not with so much alacrity obey the attractional impulse: and there can be no deserters in this war, because no man can desert his own *personality*, and escaping beyond the confines of circumstance, lose the rank stamped by Nature, before his birth, in the very essence and constitution of his being.

We should pity, and not contemn, the *mules* in the march of ages, for while they plod sullenly on, they taste none of the fruits of obedience, save such as are thrust down their throats, and these they swallow with scrry grimaces, fancying them aloetic pills or potions of wormwood. But let those who obey the "higher law" within them, and run manfully the race of life, rejoice; for as the actions of all mankind even now approve their own, so shall their words at no distant day unite to immortalize them.

To all who have assembled here to-day, I hope,—to most, I know,—I may address myself as to cheerful co-workers in the cause of Reform. Yet the same sentiment presents almost endless diversities of form and degree, as it exists in different minds. This is clearly true of Reform, as defined and advocated by different Reformers; and I doubt not there are many here to-day, purely radical, too, in their views, who would have to style me an ultraist, and some, perhaps, a rabid one. But what is ultraism? *Ultra*, you know, signifies *beyond*; so that *ultraism* is *beyondism*, that is all. It is the quality of being beyond one's fellows, it may be in error, it may be in truth, or it may be in seeming error which shall one day prove to be truth. But this you will at once perceive is no criterion. The test of all practical systems is *UTILITY*. If doctrines be ultra in this sense—if they overshoot and miss of useful results in practice, they are to be condemned. But if they merely go beyond the views of me, you, or any other man, they are by no means condemnable on that score, and if scrutinized, they may, or may not, still prove true. To argue otherwise, is to adopt, at one sweep, the whole odious doctrine of creeds and authorities against which we are all contending.

But let us handle a moment this doctrine of creeds and authorities, as it relates to medicine. The Old School would have us believe that we are a ragamuffin set of would-be-philosophers, who foolishly set ourselves up to oppose a grand, harmonious, perfect system of medical practice, taught the past thousand years, universally received save by quacks, with *et-ceteras* that would stupefy any one but a medical bravo! But let us analyze this harmony and perfection of creeds and authorities. It has vanished with

the attempt! Did not Theophrastus Bombastus Paracelsus flourish in 1540? And what say the "authorities" of him?—"A vain, ignorant, arrogant, drunken quack, fanatic, and imposter. He burnt publicly the works of Galen and Avicenna, [because they contained too much of *nature and common sense*,] declaring that his shoe-strings possessed more knowledge than those two celebrated physicians, and asserted that he possessed the elixir of life!—[just the style of a consummate quack.] He was a cabalist, astrologer, and believer in the doctrine of signatures." And yet they tell us, in the next breath, "He conferred several important benefits on medicine; he overturned Galenism, introduced chemical medicines, [*mercury among the rest*,] and substituted tinctures, essences and extracts for various disgusting preparations." Very "important benefits" these, indeed! By their own showing, this "drunken quack" and "astrologer," and not Hippocrates or Galen, is the true Father of Orthodox medicine! He did not add to the science, he made it anew, *ab initio*, and that as late as the year 1540! Verily the father was a quack, and his progeny are "like unto him."

And who has been the "authority" among Allopaths since the days of Paracelsus? Who has furnished them with a creed? They have none. Van Helmont, Boerhaave, Hoffman, Brown, Cullen, Rasori, Broussais, and many others, strove for the honor, but the result of their labors, and of the contentions growing out of their theories, has been to tangle and unsettle the doctrines of Allopathy, rather than to fix and systematize them. From these greater names we pass down through all grades of authority and shades of conjecture, to the commonist country practitioners, no two of whom can be found to agree in doctrine and practice. In fact, the *Allopathic creed*, is a pretty fiction, invented to terrify the refractory, and to carry a scientific face before the people.

To come nearer home, where shall we find the creed of the Eclectic School? I mean not to bring a charge of divisions here, but simply to show that here as elsewhere "doctors disagree." Indeed, I believe this diversity of opinion, growing, as it does, out of freedom from bigotry and constraint, is the boast of every true Eclectic. Does not radicalism range a little higher here than at Cincinnati? Did not the Reform effort at Worcester start on the Eclectic platform, and from that descend far into Thomsonism? Is not our elder sister there still suffering from an overdose of lobelia, from which she has hardly yet obtained relief by protracted emesis? Canvas the medical beliefs of Professors and Students present to-day, and will you find any two who agree? Of course, not. The thing, among thinkers, is an impossibility. The only real cause of astonishment is, that any sensible man or body of men should ever have dreamed of *making a creed*, or of having real followers thereto, and so should waste ink in writing that which nobody ever could subscribe to but themselves!

But I need not have dwelt so long on this point in an *Eclectic School of Medicine*. I shall not here be compelled to "define my position," nor suffer excommunication because, with a very human and pardonable vanity, I

choose to sit on my own one-legged stool, rather than edge on to that of my neighbor. Indeed if Eclecticism be the test, I shall assuredly pass, for my theory of medication teaches me to reject every pernicious, unnatural agency, and rely only on the safest and best possible means of cure.

The post I have been here called to fill is one of very great responsibility. I shall ever meet its demands to the best of my ability, and with a watchful eye to the substantial progress in true science of those with whom it has been unexpectedly made my lot to labor. And if, Ladies and Gentlemen, in the course of my teachings here, I should betray at times a partiality for a system of medical practice, as yet deemed by many ultra and exclusive, you can set that down as the *radical extreme* of your system, while the learned tomes from Allopathic pens, which you daily consult, may constitute the *conservative extreme*, and between these two you will find ample room to build up your individual systems, and ample work to do in clearing away the rubbish of ages, and preparing the way for that day when there shall be both a Science and an Art of Healing. Fortunately for me, my chair will not require of me a very frequent approach to the subject of *Materia Medica*, and when it does I shall hope never to advance my peculiar views with more than the zeal of a patient searcher after truth, and this I feel confident cannot prove offensive to those enlisted in the same ennobling pursuit.

As pertinent to the opening of a course of lectures, especially on the subjects of Physiology and Pathology, I have chosen the following theme on which to make some further remarks on this occasion:

THE SIMPLICITY OF THE CONDITIONS CONCERNED IN THE PRODUCTION OF NATURAL PHENOMENA; a *Guide to the true Objects of Medical Study, and the true Rules of Medical Practice.*

Here are three simple propositions to which, for the sake of distinctness, I will give the forms of questions.

1. Can we predicate *Simplicity* of the conditions concerned in producing natural phenomena, and to what extent?
2. What *Objects* should we therefore propose to ourselves in the study of Medical Science?
3. What *Rules* may we thence draw to guide us in Medical Practice?

I. To a mind that had not as yet accomplished for itself a single generalization, that had not yet fixed and named a single class of facts or appearances, the world would seem, at first glance, a most heterogenous and chaotic assemblage of things. Sights, sounds, actions, thoughts,—each class unlike, and each individual unlike all others of its own class,—the tyro would conclude there was neither plan, order, nor connection between the disjointed objects flooding at once on his mental vision. We, who have been taught to classify things and thoughts from our cradles,—to put this animal *here*, among its like, and separate that tree *there*, apart from its not-so-like, assigning this thought to one category, that to another, have at last got to do all this habitually, having very little idea of the process involved, or the predicament we should be in had we been gifted with no such capability. The act we thus perform is an act of *classification, generaliza-*

tion or comprehension. In this way we go on, discovering new classes and assigning new individuals to those already discovered, not as long as we live, but as long as we *learn*. For what is it to learn a thing? Two things: first, to *comprehend* it; secondly, to *remember* it. And what is it to comprehend? The word you know, is from the Latin *com*, *together*, and *PREHENDO*, *I take or grasp*—meaning, therefore, to take together or embrace in one idea. To comprehend, then, is to embrace many cognate facts or things so as to constitute from them one larger fact or thing, i. e. a general truth or a class. For we cannot by any possibility thus grasp under one idea two or more thoughts or things of diverse nature; and no sane mind ever attempts to bring such together, except it be to produce, by showing their palpable incongruity, a *witticism*.

The mind, then, that comprehends or knows much, has arranged the things and thoughts within its reach more into distinct and appropriate classes, that is all. For what does the most profound philosopher know of the *essence*, the *inner substance* of any one thing, more than you or I, or the most illiterate even? Nothing. Nor, again, has he any clearer insight into the real nature of the connection between cause and effect, than the peasant. Yet he generalizes, classifies, that is, comprehends more.—This point no student should forget, because it furnishes him with a key to the whole *machinery* of human knowledge!

Let us look now at some of the general truths with which our minds are already stored. I have not the time to undertake an investigation of these truths, and shall rather cite your minds to certain results, than to the observations or reasoning on which they are based.

No wider field opens itself to our comprehension than that which the science of Astronomy reveals to us, spreading through universal space.—Here we are taught, and the enlightened mind cannot reject the inference, are hosts of suns, absolutely countless in number, of all degrees of size, and attractive, and illuminating power, scattered, one would think, at broad-cast, at vast and yet various distances from each other, yet each of these a systemic center, surrounded by worlds of varying number, sizes, weights, densities, and geographical contour, receiving diverse degrees of heat, light and attractive force, and presenting accordingly every conceivable variety of vegetable and animal life; for I assume that Nature's laws cannot be modified by space or time, and consequently the forces which produce an animal of one sort on a planet revolving about *Sol*, will produce an animal of the same or some other sort on a planet revolving about *Sirius*. Now what were the elements required by Creative Wisdom to fabricate and set in motion this grand panorama, this world-waltz of eternal ages? What conditions were necessary to the production of these endless chains of ever-varying phenomena? Barely *three* conditions, and these of the simplest;—namely, *SPACE*, in which to locate matter, and allow of its motions; *MATTER*, to form bodies or foci of power; and *PROPERTIES*, by which this matter is impelled to aggregation and motion, and is enabled to form centres or reservoirs of power; in fewer words, *SPACE, MATTER, PROPERTIES.*

Let us now descend to the Microcosm,—the “little world” presented in the being of a living animal. Here, again, we fall at once into the contemplation of almost endless complexity and diversity. Forms, sizes, weights, colors, structures, tissues, organs, functions, adaptations, capabilities, sensations, desires, cogitations, characters, aims and results, infinite in number, infinitely varied, with infinitesimal shades of variation;—such, until we generalize the facts of our discovering, is the result of our most patient study of animal life. But let us trace back these phenomena to their causes, and these structures to their origin. We now find complexity and multiplicity resolving themselves into unity and simplicity, until we arrive at the origin of life, and note the conditions on which its evolution depends. They are simply these; a solitary *Cell*, organized and possessed of peculiar properties; *Materials* for its nutrition, possessing also their peculiar properties; and the presence of certain *Stimuli* to call these properties into action; or, to enumerate, a *Germ, Materials, Stimuli*.

Life originated, what now are the Conditions of the continuance of its manifestation? These are almost equally simple. They are the following: a living *Organism* to appropriate extraneous matter; *Nutritive Materials*, to be appropriated; *Stimuli*, as Heat, Moisture, Electricity and Light, to call forth nutritive actions; and freedom to act, to rest, and to cast off effete matters, as occasion may require; in other words, an *Organism, Materials, Stimuli, Exertion, Rest, Excretion*.

But, again: normal life is health; so that, an organism being given, the other conditions enumerated constitute for it the conditions of health. Take the ruddy boy of a few years, feed him, keep him clean, and allow him not an iota more of shelter than to protect him from such exposures of wet and cold as would prove positively insupportable, and let him go. Nature will take care of him, and will show, by the hardy, enduring, athletic man she makes of him, that she thinks the better of you for your apparently cruel non-interference. Nay, indeed, history and our own reflections alike will teach us that, should we cast him wholly adrift, foodless, naked and uncared for, he would thereby only be stimulated to draw the more largely on his innate cunning and boldness; and he would have living, and a training too, that would give him the constitution of a bear,—such a constitution as, alas! how many of our distressedly refined offshoots of civilization might well die with envy of,—if even he had not an intellect so well trained, which were a pity; nor a hypocriticalness so daintily “finished,” which were a God’s blessing to him!

It is not so hard a matter to raise boys and girls, and to make men and women of them, (cultivated too, for that matter, as well as hale and hearty,) our bills of mortality, crowded full with deaths of children and youth, to the contrary notwithstanding. It is because we do not know *how few*, and *how imperative* are the conditions of health, that our children die, nor, in fact, any one short of a ripe old age. We impose a multitude of new, sometimes ludicrous, always false and baneful, conditions on the little growing humans, and disregard those true conditions, founded in the na-

ture of being, which would insure, beyond all risks except the few from accident, their heathy growth. The consequences are sculptured at length on marble slabs, even to full fields of them,—tablets which all turn aside to read, and few understand.

But among the vital conditions, some are unqualifiedly indispensable while others may be dispensed with to a degree and for a time. The indispensable are, Materials, Excretion and Stimuli. For it is not true that the body—the acting machinery of tissues—takes in materials only at set meal times; the entire digestive and circulatory cavities and vessels constituting in one, and a very literal sense, a kind of interpenetrating, every where present reservoir, from which nutritive molecules are incessantly being caught out into the acting tissues to sustain, and be again thrown off by, their action. Without fresh molecules momentarily entering its substance, the heart, for example, would cease to act, and that from a breach of continuity of its nervous filaments or muscular fibers. But this momentary nutrition of the acting tissues from the blood of the capillary circulation being established, it follows, conversely, that there must take place an equally incessant passage in the opposite direction of the effete particles, which are every instant set free from the acting tissues, back into a portion of the great reservoir already named, the circulatory cavities and vessels; and we have therefore sufficient grounds for the belief, that should this every where-present excretion of spent and devitalized atoms wholly cease even temporarily in a vital organ, such as the heart, its action would at once cease from the loss of the vital, and perhaps even the physical properties of its nervous filament or muscular fibers; and that, in this case also from a breach of continuity in the vital tissues, owing to the intervention of inorganic and inoperative atoms not yet thrown off.

Again, it is more clearly seen, though not a whit more true, that a total removal of either of the stimuli, of heat, moisture or electricity, must be followed instantaneously by a loss of all vital properties and actions, i. e. of life. The too long continued removal also of those vital conditions, voluntary action, and heat, which may be dispensed with for a time, becomes equally a cause of death. The imposition of false conditions too long continued, becomes equally a cause of death; but this is only from the fact of their interfering with, and abnegating the enjoyment by the organism of one or more of the positive conditions already specified as essential to its healthy action; and the removal of one or more of these conditions to a degree, or for a time, not quite sufficient to produce death, constitutes a cause of disease. Thus we see that the conditions of disease and death, are even more simple than those of health and life; the latter requiring for their continuance a combination of many favorable circumstances, the loss of a single one of which may occasion the former.

If now, in looking around over the field of our mental vision, we do not suffer ourselves to be stupefied by the grandeur, dazzled by the brilliancy, or bewildered by the complexity of what we behold, we shall find the same astonishing simplicity characterizing all modes of causation, from the production of a system of worlds, down to that of the humblest *Conferva*,

whose solitary cell helps to give greenness in summer to the stagnaut pools by the wayside.

II. I come now to the second inquiry proposed, namely: *What objects should we therefore propose to ourselves, in the study of Medical Science?*

1. Negatively, we should not propose to ourselves a knowledge of the *essence* or *intimate substance* of any thing; but keep in mind that our business is solely with *properties, conditions, and phenomena*. To illustrate: the superficial observer fancies he has a knowledge of the substance of the various parts of the human body, among others, for instance, the human hand. The philosophical mind, meanwhile, discovers nothing but certain properties, and hence infers the matter of a body or hand. The former fancies he understands the nature of the causes of that body or hand; while the latter clearly perceives that his faculties can do no more than grasp the fact of certain circumstances, under which such motion presents itself.

And even if the body of the former approach, and thrust the hand belonging to it too rudely upon the nasal protuberance of the latter, still, if he be a genuine philosopher, he even then enjoys the mortifying consciousness that all he actually knows about the affair, may be summed up in a trifling list of properties and phenomena, some of which latter he styles effects! This may seem ludicrous, but it is scientific truth. I may add that it is in the highest degree fortunate for our suffering philosopher, as indeed for all men in all cases, that our powers of *inference* are neither slow nor feeble; so that, in this instance, the effects upon the nose suffering from impact, are very *movingly suggestive* of properties, latent in one's own digital extremities, of statute law, prison walls, and sundry other very appreciable phenomena!

But to be serious: You place in my hands an apple; I look at, touch, smell and taste it; that is, I apply my organs of sense to it, and each reveals to me certain properties residing in the apple. I eat it, because I have a love for it, and it nourishes my physical being; yet, of its real substance I know nothing. You place in my hands a healthy human heart. I look at, handle, then dissect, and look at, and handle it again. The love of science impels me, and I write a treatise upon it, a valuable one, perhaps, and yet of the essential substance of that heart, I know nothing.

Again: You place in my care a patient with disease of the heart. I cannot now examine the heart, it is true; I must work more remotely from the point of interest to me; but I expect to accomplish an examination of the heart through the condition of the patient. I look at the patient, handle him, listen to his statements; my senses and reflective faculties combined, inform me of the condition of the morbid organ; yet, of its altered substance, and too often, of its morbid structure, I know nothing. Still you wish me to cure the patient's disease; my conscience sustains me in making the attempt; I use certain means which my reflections have taught me are efficacious, and the is stayed. Meanwhile, the heart, healthy or diseased, remains as profound a problem to me, as are the happy

results I have been enabled to secure. Let me repeat, then, the grand conclusion that follows from all this, one that you should never forget, the business of the medical inquirer or practitioner is, solely with *properties, conditions, and phenomena.*

I might draw a minor corollary from what I have said, although it hardly belongs in this place,—namely, the ignorance under which we must ever labor as to the essential nature of organized bodies and their actions, and the substances we use as remedial to the maladies of the former, should teach us hesitation, prudence, I had almost said timidity, in the use of remedies, be these remedies drugs, water, or what not.

2. Positively, we should labor to discover the general class, or truth, to which every individual fact or principle belongs.

When we have learned that nerves transmit the images, so to speak, of sensations, and the stimuli to motions, we have acquired two general principles; that the brain performs the double office of recipient of the one, and originator of the other, we have acquired two general principles. We now know where to classify nerves and brains. But when we have arrived at the conclusion that brain and nerves, answer but as the "pile" and "conductors" of the human galvanic battery, we have advanced one step higher in our generalizations, and the mind reaps a corresponding satisfaction from the acquisition, while physiological science advances one step nearer to its "ultimate facts," and a flood of light is thrown on the functions, and what is of more value to the healer, on the pathological phenomena and relations of this human battery, as evinced in convulsions and other forms of diseased sensation and motion.

And what, indeed, is it worth to any one, to possess a host of disjointed facts and principles? Who would value a gift consisting of a medley of all sorts of dissimilar things, one or two of each, various fruits, stones, insects, flowers, earths, seeds, leaves, jewels, and manufactured trinkets, heaped in one heterogeneous mass? Such a collection would be of no service to its owner or beholder. Taken as it is, it can neither gratify the palate, the eye, nor any sense or faculty, and no man would purchase it except that he knew he could assort the medley mass, and separate in it the valuable from the worthless. The beautiful from the unsightly. Yet such a medley is in every mental store house, the contents of which, have not been assorted, classified, generalized. Recollect what it is to comprehend; and that it is only by putting a fact in its proper place, in its proper relations with, and dependence upon, other facts, that you can ever comprehend or know any thing more about it than the ignorant savage, whose eye turned upon an object, reveals to his mind an isolated fact, and whose mind registering the information, simply declares to itself, "*that thing there is!*" Indeed, it is often true that a fact once properly classified and understood in all its bearings, and then forgotten, performs a more valuable part in the development of the mind, and its preparation for usefulness, than many isolated and irrelative facts well remembered.

Whenever, then, in pursuing the study of physiology or any other science pertaining to Medicine, or any science whatever, you light upon a new

fact or principle, ask yourself of what general class, or general truth this forms a part, and study it in the reflected lights of all others with which you bring it into contiguity.

Whenever at the bed side of the sick, you perceive a symptom, approach the consideration of it with the same question in mind. Here, is a case of tetanic spasms, the jaws knit together, the body frightfully distorted.—Pause not at the facts; what have we here? muscular action, without cessation. This binds the jaws as with bars of iron, and strains the whole frame into un wonted postures. But whence is the stimulus to this frightful action? Though the excito-motory nerves, originating in the spinal cord. Here we have arrived at a more general fact. But does the spinal cord act independently? no, it must be aroused through some of the excitor filaments converging from the different parts and organs. Here we have another general truth, and now we are prepared to look for the cause. It may be a foreign body irritating the nerves of the cuticular covering; or it may be strychnia, irritating those distributed to the viscera. In either case we search for the cause and aim to remove it.

III. I come now to the third head of my subject, and inquire *what rules we may draw from the foregoing considerations to guide us in Medical practice.*

1. We should reduce the art of prescribing to a Science. Anatomy and Physiology, though not yet perfected, are admitted sciences. Pathology is receiving important accessions, and submitting to new generalizations, and bids fair to become a science. The whole chain is being completed, except the last link, and that is therapeutics, so far as it is founded on the nature and power of remedies. Here all enlightened practitioners of the Healing Art confess we must leave the well-planned gardens of science, and break into a tangled and almost interminable thicket. The nature and powers of remedies, be they drugs or what not, are not yet understood as they should be. If these were reduced to a definite science, we should know just what, and when, and how much, and in what way to use our remedy, deducing each particular from the anatomical, physiological, and pathological relations of the case, with almost or quite as much certainty as in a numerical calculation we deduce the *result* required, from the *data* on which we proceed to reckon. We must yet make of *pharmaco-dynamics*, as Pereira styles it, i. e., “the nature and powers of remedies,” a science. Until that is done, medical practice must be more or less a work of blind routineism.

2. We must practice according to the indications of a case, and not according to symptoms, or to our ideas of certain remedies in use. For instance, a practitioner will tell you he has visited such a case, and found a yellow coated tongue, which to his mind indicated the use of leptandrin; or a hydropath may tell you he found great restlessness, which to his mind indicated the use of a wet-sheet pack. But the yellow tongue may attend entire obliteration of the canal of the ductus choledochus, and the extreme restlessness may be the precursor of death from exhaustion, and in either case the remedies would not be merely useless, but in the highest degree det-

rimental: liptandrin creating an irritation of the secreting follicles of the liver, and also of the bowels, while there could be no passage between the two and no outlets for the accumulated bile: the pack increasing the exhaustion, and hurrying on a fatal issue, while it had no power to quiet the consequent restlessness for which it was prescribed. Now a careful collection of all the cognizable symptoms in either case, with a classification and reference of them back to more general principles would probably have developed the true nature of the difficulties, and then the real indicative in the case would be found to be very different. Thus we establish a Diagnosis of Therapeutical requirements.

The mistake here lies in supposing that indications relate to special things; whereas, they actually relate to a general course of management. An indication medically considered, is a demand founded in the nature of certain morbid conditions, for a certain course of treatment of those conditions, calculated to replace them by a normal state. Thus no case of disease ever presented an indication for leptandrin, quinine, lobelia, or a wet-pack: but many cases present indications for a cholagogue, anti-periodic emetic, or anodyne effect, and such effect being indicated or demanded, the enlightened practitioner decides on the course of treatment most likely to secure such effect, in a salutary manner, and perhaps uses for that purpose remedies already named.

Third, and lastly, we must *simplify medical practice*. The notion of considering certain remedies to be indicated in a given case, certain drugs, or baths, is a very mischievous one in practice. According to it, if called to a bad case of dyspepsia, we probably shall find rhubarb indicated for constipation, soda for acidity, gum arabic for gastric irritation, charcoal for fetid secretions, sanguinaria for hepatic torpor, aletrin for general debility, and so on till we have mustered a perfect farrago of heterogeneous and often conflicting agents, and the sorest difficulty now becomes, how to get them well mixed and swallowed in due quantity. If however we study the case intelligently, we shall find that nearly or quite all the symptoms to be met with *are but results of* CERTAIN CONDITIONS, constituting the disease, and that condition is simply one of *congestive circulation*, the linings of the stomach and the linings or the substance of the viscera generally being surcharged with blood at the expense of the cutaneous and muscular capillary circulation. Hence comes the flabby skin, weak muscles, and perverted visceral secretions; and this whole condition of things primarily depends on a weakened condition of the organic and nutritive nerves, where flagging powers have, in the first place, failed to push the blood equally and vigorously to the farthest capillary structures.

Here, then, instead of half a dozen or more, we have but two main indications, namely, to invigorate the endo-nervous system, and to equalize the circulation by direct means calculated to remove congestion; meanwhile not forgetting of course to allay the most troublesome effects of the morbid condition until they should cease, on its removal. And in order to answer each of these indications too, we should not take a mixture of dissimilar or similar agents, but select from our whole catalogue of remedial

means one simple agent to meet each of the indications in the case, or all of them if possible. Thus practiced, Therapeutics will be found to be rapidly approaching, and ere long destined to attain, the station of a science; and we shall then hear fewer complaints about the want of certainty in medicine. In fact, the more we study indications, instead of symptoms, the fewer remedies shall we need, and the more will compounds yield to simples. When we use few remedies and simple ones, we shall of course take the best, and our materia medica will then become shorn of much of its present unwieldy dimensions. There is one difficulty, I am aware, in the way of this simplification of the materia medica, namely, that as long as drugs are used, and in their crude form, in which they already exist as compounds, a wider selection must be allowed at times, because while the main active principle of a given drug, is just the thing required, there may be associated with it in smaller quantities, but still sufficient to make themselves felt, other active principles which are contra indicated in the case; just as the anodyne effects of crude opium cannot be made use of on account of the exciting agents associated with morphine in its composition. The effort now being made, and successfully in many instances, to obtain the active principles of most vegetable remedies in a simple state, as pure resins, alkaloids, oils, &c., obviates this difficulty in a great degree; and as long as drugs must be used, the enterprise is a praise-worthy and should be a successful one. I will barely venture to advise the enthusiastic advocates of concentrated remedies, however, to beware of becoming too strongly wedded to these neat little productions of science; for although *Podophyllin is pure, compact, potent, and often apparently salutary in effect*, YET NATURE IS GREATER THAN PODOPHYLLIN.

A few words in conclusion—Anatomy, Physiology, and Pathology, are the three foundation stones which underlie the whole fabric of Medical Science; and he who attempts to rear for himself that fabric, yet does not found it firmly on these three, builds on the sands. The physician must understand clearly the anatomical structure of the human body, the physiological operations of all its parts, and the changes made in these by disease, or all his attempts at tinkering man's exquisite organism, no matter how great his knowledge in other respects, must constitute the grossest empiricism. This is, indeed, a species of empiricism far too prevalent, and that in all schools of medicine; and why? It is because students get the impression that if they understand the *Materia Medica*, and more especially the *Theory and Practice* of their art, in their three divisions of Medicine, Surgery and Obstetrics, they will succeed as practitioners, no matter if they have not more than a mere smattering of such *incidental accomplishments* as Physiology and Pathology. This is a fundamental error; and to the physician's success, and the advancement of his science, a MOST FATAL ONE! For what avails all the knowledge of *tools* and all the *rules* that can be taught for the use of them, so long as we have but an imperfect idea, or no idea at all, of the *material on which*, and the *objects for which* we are to use them. There is a lamentable deficiency on the part of educated practitioners in this department of our Science; and it has too

often grown out of a tacit admission on the part of Preceptor and Student that they are of minor importance. This false estimate it should be the first business of the members of this class to correct in themselves; and of one thing they may be safely assured, namely, that were Physiology a branch not so essential to success in practice, there is no grander Science within the range of human knowledge, and none that will better repay a deep and careful investigation.

You need a profound knowledge of physiology at the bedside of the sick to be able to judge in the outset whether anything of consequence needs to be done at all for your patient. For in disease the symptoms are not all morbid; those of healthy and of diseased action running together in every conceivable variety, and you should be qualified to judge which has, and which is likely to get, the ascendancy. The same fusion and intermixture of healthy and morbid symptoms are equally seen, indeed, in those we call healthy. Diogenes, you know, lighted his lamp at mid-day, and went about the streets of Athens looking for a MAN. I presume he found the search almost or quite fruitless; and so would be yours, if you should light your lamp and go up and down the streets of this city, or any city, or almost any country that the great sun beams benignantly on, in quest of a MAN, physiologically speaking—a sound and perfect human being! “All flesh,” you know, “had corrupted its way on the earth” before the flood, and at the rate it has gone on “corrupting its way” since, “all flesh” should have no little charity if at times its manifold and multiplied obliquities should puzzle the profoundest physician and physiologist!

ANIMALCULES, THEIR NATURE, &c.

BY PROF. A. K. EATON.

Figure 5 represents a beautiful animalcule, usually associated with those previously described, called *navicula inequalis*, from its peculiar form.

Figure 6. Outline of *navicula acus*.

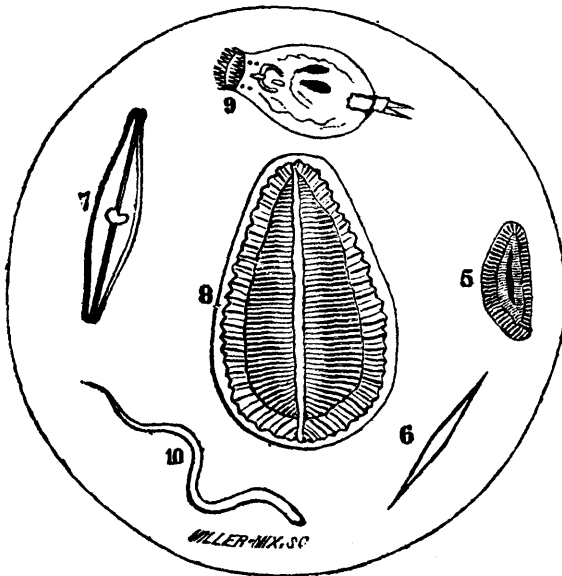
Figure 7. Outline of *navicula gracilis*. This variety of frequent occurrence in the water examined, and both from its beautiful form, and from its graceful movements, is entitled to the name of *gracilis*.

Figure 8. *Navicula striatlua*, also occurring in large numbers.

In one instance only, I have detected in water of medium purity, an animalcule of the form exhibited in figure 9. It somewhat resembles the meltopidia lepadella, (fig. 4,) and is called *squamella oblonga*. The four

points near the head of the animalcule, indicate the position of its eyes, which are red. The number of eyes with which this species is supplied, although double that of most larger animals, is only half that of some other animalcule forms. The classification of animalcules, is based in part upon the number of visual organs.

It will be noticed that there is about the head of this animalcule a circle of fibres or hairs, forming a kind of crown. These cilia as they are termed by the peculiarity of their movements, produce the appearance of a revolving wheel, hence this animalcule and all others, provided with similarly moving organs, will be embraced in the great family of the *rotatoria*.



It is supposed that these cilia are organs of respiration, and their continual motion is necessary in order to produce currents in the water, and thus continually bring fresh portions of water, charged with air, in contact with these organs. The close resemblance to the motion of a toothed wheel, in the operation of these cilia, is very surprising. The effect is produced by the seeming vibratory motion of each of these hairs, as it describes a circle with its point; the motion not being readily distinguishable, except through one half of the circle described; the impression produced, when all are seen in motion at once, is, that it is a wheel in rapid revolution.

Figure 10 gives the form of an animalcule, that may be found occasionally in the waters of the purest springs, but which I shall not attempt to name. It is remarkable for the rapidity of its movements when seizing its food, and when thus engaged fastens his tail to some fixed point, (as does the *metapidea lapadella*,) with the point of attachment as a centre, it darts circumference-ward, again and again, with the rapidity of lightning, until it has devoured all those minute forms of animalcula life, that have ventured within the "circle of my acquaintance." This animalcule resembles those peculiar to vinegar, though very much more minute.

The different figures to which I have been referring, are enclosed in a circular disc, which represents the field of the microscope; this field, however does not include a whole drop of water; with an object glass of high power, only a minute portion of a drop will be in the field at any one time, yet in this small portion, not unfrequently, countless multitudes of the forms figured above, can be seen.

I have not, however, exhibited the forms of all the animalcules thus occurring, several other forms of the *navicula*. are to be seen, and some species of animalcules, not yet well understood.

The character of animalcules contained in water, will depend in a great measure upon the condition of the latter. The waters of the clear spring, differ materially, in their animalcular contents, from the waters of the stagnant pool; the waters of the ocean from those of the running stream, and this difference is not one of numbers merely, but a difference in habits.

It will hardly seem possible that these invisible creatures can work any perceptible changes in water; yet is their influence marked and extensive, considered as one of the geological causes concerned in producing changes upon the earth's surface, animalcular life—or rather death—has left, indelibly, "footprints on the sands of time." Those vast deposits of infusorial shields, which have already been alluded to, are striking mementos of the influence that the minutest forms of life, may, in the lapse of time, exert. Singly, either when living or dead, their influence is imperceptible; but en masse, they produce results the most extraordinary. The living animalcules of the sea or lake, often give color to the wave, and as they suddenly appear and disappear, so do the waters change their hue—now tinged with sombre green—now paling to transparency, as the flood of living creatures ebbs and flows.

The phosphorescence, too, of the waves of ocean, is produced by these

tiny creatures; that, for miles away, illumine the dark waters by their electric* glow.

From our limited knowledge of the wonders of the invisible world, we may feel assured, that creative power has scarcely left a point in space unoccupied. In air, sea and earth; above, within, and around us, we are ever discovering new forms of life. What eludes our search to day, from its minuteness, is revealed by the improved microscope of to morrow.

* The phosphorescence of some larger animals, is known to be an *electric* effect, and we may assume that the same phenomena produced by animalcules, has a like source.

A NEGRO WOMAN WITHOUT EARS.—The Rev. B. H. Benton, in a letter to the London (Va.) Chronicle, says :

“Strange, but no less true, I yesterday saw a colored woman without ears; not only without the auricle or the external part of the ear, but there is no trace of a foramen or passage for sonorous vibration—the meatus is entirely closed. Yet she can converse with others, and distinctly hear their words, for which purpose she opens her mouth. Now, is the sound transmitted to the brain by the means of the tympanum, or does it act on the auditory nerves without the intervention of the drum and appendant organs? This is an interesting question for physiologists.”

THE SIAMESE TWINS DEAD.—The Paris *Journal des Debats* announces the death, in England, of the famous Siamese Twins. The *Debats* says that, according to the London Medical Times, the two brothers died of marasmus. A *post-mortem* examination proved what has always been supposed by the faculty, viz : that the two cavities of the abdomen communicated by means of the hollow ligament which united them, and that the livers of the twins were connected by a membrane bridge about half an inch thick.

Part 2.--Selections.

SIZE OF THE BRAIN IN VARIOUS RACES AND FAMILIES OF MAN.

A late number of Silliman's Journal contains a valuable series of observations on the size of the Brain in the different families of Man, from the pen of Dr. Samuel G. Morton, of Philadelphia—a gentleman to whom the scientific world is largely indebted for his invaluable Ethnographic researches: and who is perhaps the most skillful and learned Craniologist of the present day. The observations here summed up are the results of internal measurements of six hundred and twenty-three human crania:

1. The Teutonic or German race, embracing, as it does, the Anglo-Saxons, Anglo-Americans, Anglo-Irish, &c., possess the largest brain of any other people.

2. The nations having the smallest heads are the ancient Peruvians and Australians.

3. The barbarous tribes of America possess a much larger brain than the demi-civilized Peruvians and Mexicans.

4. The ancient Egyptians have the least sized brain of any Caucasian nation, excepting the Hindoos.

5. The Negro brain is nine cubic inches less than the Teutonic, and three cubic inches larger than the ancient Egyptian.

6. The largest brain in the series is that of a Dutch gentleman, and gives 114 cubic inches; the smallest head is an old Peruvian, of 58 cubic inches; the difference between these two extremes is no less than 56 cubic inches.

7. The brain of the Australian and Hottentot falls far below the Negro, and measures precisely the same as the ancient Peruvian.

This extended series of measurements, it will be seen, fully confirm the fact previously set forth by Mr. Morton, in his works, that the various artificial modes of distorting the cranium occasion no diminution of its internal capacity, and consequently do not affect the size of the brain. The results thus arrived at are curious and interesting, and doubtless will attract attention.

CHOLERA.—The cholera is prevailing at New Orleans. Forty deaths occurred on one boat while it was passing from that city to St. Louis.

SINGULAR TRANCE.—At the village of Farrington, about nine miles from Bristol, England, a young woman named Ann Cromer, daughter of a master mason, now lies in a complete state of catalepsy, in which trance-like condition, should she remain until next November, she will have been for no less than thirteen years. During the whole of this extended period she has not partaken of any solid food, and the vital principle has only been sustained by the mechanical administration of fluids. Although reduced almost to a perfect skeleton, her countenance bears a very placid expression. Her respiration is perceptible, her hands warm, and she shows some indications of existing consciousness. Upon one occasion, when asked if suffering, to squeeze the hand of her mother placed in hers for that purpose, a slight pressure, the mother avers, was plainly distinguishable; and frequently when suffering from cramp, she has been heard to make slight moans.

About four months after the commencement of her trance, she was seized with lock-jaw, which occasioned great difficulty in affording her nourishment. The unfortunate young woman is twenty-three years of age, and has been visited by a great many medical gentlemen, who, however, hold out no hopes of her ultimate recovery.

QUACKS AND REGULARS—IRISH WIT.—It has been somewhere said, that the only difference between a *quack* and a *regular*, is this: that the one kills you, whilst you *die under* the other.

A poor Irishman, who was lately admitted under the care of Mr. Travers, seems to have been much of this way of thinking. He was the subject of an eruptive disease; and when questioned by Mr. Travers, as to whether he had “ever been under the care of a quack;” “Och! no, (rejoined Pat,) plase your honor—shure I never went to a HOSPITAL before.”

[London Lancet.

APPLICATION OF ADHESIVE PLASTER.—The practice in the Italian Hospitals, is to cut the strips of plaster quite broad at the extremities, and narrow in the centre, so that when applied, there may be so many points of contact for the ends of the plaster, that they cannot slip. By this arrangement, the edges of the wound are kept more certainly in contact, and larger spaces are left for the escape of pus, or other fluid matter.

CHOLERA IN CALIFORNIA.—By a late arrival from California, we learn that the cholera has made rapid strides in Chagres, the number of deaths in three weeks being 135, while in Sacramento they had reached 1000.—The disease was subsiding.

Part 3,--Editorial.

From the N. Y. Eclectic Medical and Surgical Journal.

ANNUAL MEETING OF THE STATE ECLECTIC MEDICAL SOCIETY.

The State Eclectic Medical Society will hold its Second Annual Meeting, at Rochester, in the College rooms of our Institution, the *second Wednesday of January, 1851*, according to a resolution passed at the semi-annual meeting. We anticipate the occasion will be one of unusual interest. Our friends at a distance, so far as we have heard from them, are with us, and will be present, to add to the interest of the meeting, by reporting the progress of Scientific Reform; the successful treatment of different diseases; original disquisitions on various medical subjects; new methods of practice, and the like. We hope they will be prepared to furnish many very interesting and instructive reports, such as warm and cheer the hearts of reformers, and thus render the cause more attractive by its reports of practical and successful demonstrations.

Several addresses will enliven the meeting. Verbal reports of practice will also engross a part of the time. Each Professor of C. M. College will represent the interests and the wants of his chair, and perhaps give a short retrospective view of the improvements which may have been introduced to the profession during the current year.

After the election of officers, it will adjourn; and the STATE ECLECTIC MEDICAL CONVENTION will then be called to order by the President. Our friends will bear in mind, this is the *second annual State Convention*, which represents our district societies, and indeed our Eclectic force, numerically. We hope this Convention will be furnished with a full supply of delegates, not only from district organizations, but that every county medical society will send at least one or two representatives.

Let this Convention be a MASS MEETING of Reformers, from every section of the State; a grand UNION celebration, reviewing the movements and

advances of the Eclectic Medical profession, uniting our views and aims to carry on the noble enterprise, in which we are all engaged. By unanimity of purpose and concert of action, we can do more understandingly and effectively to farther the interests of Eclecticism in the Empire State, and organize our host into an **ARMY OF WORKING MEN**. We trust **ALL** who feel alive to the interests of our common cause, will spare no pains, and permit no embarrassments to hinder their attendance on this occasion. We have ample room to accommodate at least 400, which will be a small representation of our actual forces.

Distinguished friends will be present to address us on this occasion, and we feel at liberty to name some of those who we expect will be on the ground, to encourage and animate us. We have not been positively assured of their presence, but they will be present unless something unusual prevents.

Drs. G. W. Davis,
S. O. Glason,
G. H. Preston,
G. W. Saxton,
C. S. Totman,
S. Look,
J. Burt,
E. S. Preston,
R. Dick,
Booth,
H. Case,

Drs. James C. Jackson,
Arvine Peck,
W. Hawley,
T. A. Moore,
Kuchler,
D. Higbie.
J. Ward,
C. L. Harding,
O. Ford,
L. A. Ward,
S. T. Teal.

Let every man bestir himself and his neighbor, and come up one and all, as by one impulse, to attend, we trust, the largest convention that ever assembled in Central Medical College. It is by these general, almost universal movements, that we unite our hands and hearts, fuse our interests and efforts, and advance the true interests of Reformers.

Brethren, we wish also to rekindle your hopes and animate your spirits by presenting you with the perspective encouragement, which a class of fifty students affords, gentlemen and ladies, who bid fair to honor the cause by their sound attainments and by their future labors. We would also be highly gratified if many of our warm friends could spend a number of days, or weeks even, to witness their progress, and more fully to

make acquaintance with the methods and facilities for imparting instruction in their institution.

We would remind those friends who are appointed on committees, to be prepared with their reports. We publish again those committees, hoping that EACH gentleman will hold *himself alone* RESPONSIBLE for a report.—Let there be efficiency in this particular, and no one will be willing to offer the lame apology, that he left it to abler men. Those members of the Faculty, whose names are united with others as committee men on reports, should be excused, as their daily labors really over-tax them with efforts which must consume all their time. The following committees are appointed to furnish reports on the departments respectively assigned them:

COMMITTEES.

Surgery—J. R. Bush, M. D.; L. C. Dolley, M. D.; Arvine Peck, M. D.; T. A. Moore, M. D.

Physiology—S. O. Gleason, M. D.; L. Reuben, M. D.; F. Larkin, M. D.; R. Dick, M. D.

Principles and Practice of Physic—S. M. Davis, M. D.; G. W. Saxton, M. D.; J. Burt, M. D.; J. C. Jackson, M. D.

Obstetrics—G. W. Davis, M. D.; O. Davis, M. D.; C. S. Totman, M. D.; Mrs. L. N. Fowler, M. D.

Materia Medica—W. Beach, M. D.; W. W. Hadley, M. D.; D. Higbie, M. D.; A. H. Davis, M. D.

Chemistry—A. K. Eaton, M. D.; Henry Foster, M. D.; H. Case, M. D.; W. H. Davis, M. D.

Pharmacy—W. Elmer, M. D.; W. W. Hadley, M. D.; B. S. Phelps, M. D.; C. B. Robins, M. D.

We expect that each committee will be able to furnish a number of reports, and every individual will offer to the convention something of an instructive, practical character. Unless this individual responsibility is *felt and demonstrates results*, much of the force and character of the convention will be undeveloped. Remember, friends, one and all, the day of the Convention, is the *8th of January, 1851*. We look forward confidently, believing every one will endeavor to make the ANNUAL STATE CONVENTION a proud occasion in the history and progress of Medical Eclecticism in the State of New York.

**SECOND ANNUAL MEETING OF THE CANADIAN ECLECTIC
MEDICAL SOCIETY.**

The report of the committee appointed to prepare for the Society an address to His Excellency, Lord Elgin, being called for, the following was duly presented:

To the Officers and Members of the Canadian Eclectic Medical Society, in Annual Session assembled:

Gentlemen:—Your committee, to whom was assigned the duty of preparing an address to His Excellency, beg to present the following:

To His Excellency, Lord Elgin, Governor General of the Province of Canada, &c. &c. &c.:

May it please Your Excellency—

The Canadian Eclectic Medical Society, in annual meeting assembled, beg leave, most respectfully, to address your Excellency, for the purpose of acquainting the Head of our Provincial Government with the existence and objects of our association.

From the earliest period of the settlement of Canada, its inhabitants have, from necessity or choice, depended much upon the natural medicinal resources of their own woods and fields for the cure and alleviation of disease. When at length a Medical Board was established by law, the members of that Board, and their licentiates, paid little or no attention to the domestic medicine and practice, which the people have shown some disposition to encourage. Other persons than medical licentiates were, therefore, necessarily employed in this comparatively neglected field of medical research and labor. These practitioners, by adopting the medium course of American practice, which repudiates blood-letting and the use of poisonous substances in common medication, and by bringing into use many less hazardous but more efficient remedies, have succeeded in curing some forms of disease heretofore regarded as incurable, and contributed to render the cure of others far more certain and safe. But the existing law of this Province, (passed in a less enlightened period of Canadian history,) regulating the study and practice of physic, tending to suppress this necessary spirit of medical inquiry and enterprise, and efforts being made to render the medical laws of this Province still more restrictive and intolerant, the practitioners of the reformed system of medical practice have deemed it prudent to form themselves into an association, the objects of

which, as set forth in their published constitution, are, "Mutual improvement and support in acquiring and diffusing a more accurate knowledge of disease and medication, directing our inquiries more particularly to the diseases and natural resources of our own country, and to procure the enactment of equitable laws relating to the study and practice of Physic, Surgery, &c."

In adopting the name Eclectic, the members of this society would not be understood as committed to the abandonment of original research, or of any established principle. Whatever has been fully proved true by Thomson, or any other founder of a medical system, they gladly cherish; and, as Eclectics, hail with delight whatever is practically demonstrated to be safe and efficient in the cure of disease. And, thus uniting freedom of inquiry with stability of principles and purpose, we cordially invite the attention of our government to the results of the practical application of these principles and purposes, in full confidence that an impartial investigation would show the inexpediency and impropriety of past class legislative policy, and of all policy which aims to establish any species of medical despotism in this Province, curbing the spirit of free inquiry, and forbidding, under the plausible pretext of elevating the medical profession, the application, by the domestic practitioner, of the results of his investigations and experience in the cure of disease—which give to the medical productions of Canada a marked superiority over the foreign drugs and patent medicine, which now flood our land, by the constant use of which thousands are daily aggravating their physical maladies, and precipitating themselves, unwittingly, yet certainly, into the resting place of the dead.

But addressing, as we are, the Head of a professedly liberal and Christian Government, we are, therefore, permitted to appeal to higher motives than mere worldly policy or expediency. Our government places in the hands of every incumbent of office, legislator and juryman, a copy of the Scriptures, and requires him, ere he enters upon the discharge of his duties, to appeal to the Searcher of Hearts, that he will discharge them in accordance with the requirements of Divine Law. This we regard as a tacit acknowledgement on the part of our government that no neglect, or violation of that law, will be required of any individual. We open the Bible containing the revealed will of God, as well as an account of the introduction of moral evil, and consequent physical and mental suffering; and therein find as positive an injunction *to relieve the afflicted*, as to instruct the

ignorant, or feed and clothe the destitute. While, then, we rejoice in seeing our government so far respecting the Divine Law, as to allow the ministers of the various sects to engage in the "cure of souls," without imposing upon them the necessity of seeking license from some dominant, opposing, or rival sect, we confidently trust that our equal rights and obligations, respecting the cure of the body will soon be as fully recognized.

We have seen, with great pleasure, Your Excellency giving countenance to agricultural, educational and mechanic associations, encouraging them to develop the natural resources of our country, and thus promote the welfare of the people; and hence we venture to hope that our humble efforts in an equally important branch of the same work, will not meet with less encouragement from Your Excellency, seeing we claim no exclusive privilege. The freedom of research and action we ask for ourselves, we wish to see freely accorded to all others.

That Your Excellency may long enjoy the ability, as well as the disposition, to promote the happiness and the best interests of all under Your Excellency's administration, is the sincere wish of this association.

Respectfully submitted.

JOHN G. BOOTH,
A. D. SKELLENGER, } Committee.
ORIN FORD,

On motion, the address was adopted, and the Secretaries appointed a committee to secure its due presentation.

On motion, the society adjourned to meet in the city of Toronto, during the next session of Parliament, as previously resolved.

ROB'T DICK, Cor. Sec'y.

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ECLECTIC MEDICAL INSTITUTE, CINCINNATI.—This institution is enjoying its usual degree of prosperity, numbering some 160 students in attendance. We notice they are to have a spring term.

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RARE SPECIMENS.—The Faculty of Central Medical College solicit of their Eclectic friends the presentation of such Anatomical, Physiological and Pathological specimens, as will be valuable in illustrating the subjects of their departments. Also, Fœtal specimens. Bring them with you when you come to attend the State Eclectic Convention, to be disposed of for the benefit of the College. In this way you can furnish at once a MUSEUM of natural and morbid curiosities.—[Eclectic Med. and Sur. Journal.