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O N

CERTAIN MEDICAL DELUSIONS,

AN

INTRODUCTORY LECTURE

TO THE

COURSE OF INSTITUTES OF MEDICINE

IN

JEFFERSON MEDICAL COLLEGE

OF PHILADELPHIA.

DELIVERED NOVEMBER 4, 1842.

BY **ROBLEY DUNGLISON, M.D.**

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Philadelphia, Nov. 11th, 1842.

DEAR SIR,—The gentlemen composing the Jefferson Medical Class being duly sensible of the merits of your introductory lecture, appointed the undersigned a committee to wait on you for the purpose of soliciting a copy for publication.

Your granting them this favour will ever be remembered with feelings of gratitude and a proper sense of the obligation.

With sentiments of the most sincere regard and respect,

We remain your friends,

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To Professor Dunglison.

Philadelphia, Nov. 14, 1842.

GENTLEMEN,—The introductory lecture, which the gentlemen composing the class of Jefferson Medical College do me the honor to solicit for publication, was prepared for them. I therefore cheerfully place it in your hands, to do with it as the class may think proper ; gratified that it should have met with their approbation.

I am, gentlemen,

With great regard,

Faithfully yours,

ROBLEY DUNGLISON.

To Messrs. Thomas K. Price, &c. &c. Committee.

INTRODUCTORY LECTURE.

EIGHTEEN years, gentlemen, have elapsed, since I first presented myself, as a teacher, before a medical class; and, for as many successive years, I have experienced emotions similar to those that impress me now. When I see before me the faces of some who have accompanied me, for one or more sessions, through my service of instruction, and who are full of solicitude that the ensuing course may crown their exertions; when I observe others, who have left, for the first time, perhaps, their homesteads, and are most anxious to appreciate the powers of those who are about to become their preceptors; and when, withal, I reflect on the arduous and responsible duties that devolve upon me, I am not stoic enough to feel unmoved; neither would I desire it. Such emotions stimulate to exertion. That exertion I promise you; and I ask only in return the respectful attention which has always been paid me; so that after we have travelled in company along the pathway of science, which is skirted frequently with the fairest flowers, yet is occasionally rugged and cheerless, and at the termination of our journey are prepared to say

“Farewell! a word that must be, and hath been,
A sound which makes us linger”—

may we separate, dragging “at each remove a lengthening chain” of affectionate interest for each other, and for the institution to which we have been mutually attached.

It is not my intention to glorify unnecessarily the department which it is my duty to teach, and which must be looked upon as one of the bases of medical science. It may seem a truism to assert, that no one can know disease

unless he is acquainted with the healthy action of organs ; and that physiology is, therefore, the point of departure for all our acquaintance with pathology. Yet an inattention to it is at the foundation of most of our medical errors, popular and professional. What, for instance, can be the use of listening to the sounds rendered by disease, or what are called the *physical signs*, unless we know the character of those sounds as heard in the healthy condition of the organs ? Hence the importance of a recommendation, which I constantly give the young auscultator, to commence his researches on healthy man.

I have said, that an inattention to physiology is at the foundation of most of our medical errors. I might have added, that mistaken notions in regard to it had likewise given rise to many irrational theories, and to some strange delusions. It is good, to look back to some of those, to compare the present with the past, in order that we may hereafter learn to avoid retarding influences, and endeavour to discover the pathway to truth.

Mysterious as are the functions executed by living beings, and especially by the most elevated of them—man ;—intricate and inscrutable as many of them have been, are, and must probably ever remain ; it is not strange that attempts should have been made in all ages to penetrate the obscurity ; and that singular and fantastic notions should have received, in the infancy of science, a degree of attention of which they were undeserving. Far more strange is it, that in the nineteenth century beliefs should be openly maintained, which are not less wild and visionary than many of the speculations of our forefathers of the times of Paracelsus, and of Jacob Böhmen. Indeed, many of these are but the revivals of prototypes, which had created a deep sensation, then passed into forgetfulness, and in the fulness of time had again worked their way to the surface to pass through another cycle of increment, maturity, and decay.

At different periods, physiology has had her votaries, who attempted to explain all the phenomena of the living organism

by abstract calculations, and by the laws of mechanics, hydrostatics and hydraulics; and it cannot be denied, that many of the functions admit of valuable elucidation from the physical sciences. The bones are levers; the joints are fulcra; the muscles act as the power; and the action of the inanimate lever, fulcrum, and power can be calculated as accurately as in the case of the ordinary lever with which we raise weights; but no mathematical calculation can convey any idea to us of the degree of force which the *living* muscle is capable of exerting. A man, in a state of health, is able to raise a certain weight by the contraction of the biceps muscle of his arm; but let him be struck with the contagion of malignant fever, and, immediately,—although the lever, the fulcrum, and the moving power inserted into the lever, hold the same mechanical relation as in health,—he is not now able to raise as many ounces as he previously could pounds. The nervous power is enfeebled by the depressing morbid influence, and that power admits of no calculation. In mania, where it is inordinately exalted, the delicate muscles of the female can execute feats far exceeding those of which the same muscles of the healthy male are capable. Yet there seemed to be an exactitude, which was all desirable and captivating, in the announcements of the iatro-mathematical or mechanical physician. They were arrayed, too, in all the imposing forms of the exact sciences, and thus idle statements were apt to be received as indisputable truths. For example, it was laid down, that a knowledge of the proper dose of a medicine could be obtained by taking the square of the patient's constitution; and although no rules were given to determine the constitution itself, the recommendation was adopted by author after author, so long as the system predominated. Yet science derived essential additions from the labours of several of the distinguished followers of this doctrine; and the names of Borelli, and Bernouilli, amongst others, will ever adorn the history of physiological science.

Not less imposing were the views of the iatro-chemical physicians, who likewise added greatly, notwithstanding many of their visionary speculations, to the progress of medicine. What, indeed, is the animal or the vegetable organism but an extensive laboratory, in which composition and decomposition are perpetually going on;—effete parts being cast off, and new ones constantly deposited in their places? Was it strange, then, that the minds of physiologists should be turned to chemistry, to throw light upon these recondite processes; or that—in the childhood of chemistry—vague and often irrational views should have been entertained in regard to them. The blood was seen to move constantly, and to bathe every tissue. It was properly looked upon as the pabulum whence every portion of the body was formed. It was supposed to be liable to changes, to which all solutions of organized matter are prone. Fancied acid and alkaline humours were presumed to meet in the heart, to excite effervescence there, which generated heat to an extent that might have been dangerous, had not nature—which always means Nature's God—placed the lungs in the vicinity to act like a pair of bellows, and temper it. Humours of various kinds—*peccant*, as they were termed—entered, it was conceived, the fluid of the circulation, and produced tumult and disorder; but, as in the case of ferments out of the body, to which they were likened, they went through a stage of concoction and maturation, and were finally expelled. Thus it was in fevers;—the heat was necessary to the concoction and maturation; and the crisis—whether by sweating or purging—eliminated the peccant or morbid matter, and the fever ceased. Even yet, popular notions cling with pertinacity to suppositious humours in the economy; and the practice at Dotheboy's Hall, of administering sulphur on stated occasions to purify the blood, is a source of infantile disgust and abhorrence to others besides the unfortunate inmates of a Yorkshire seminary. Similar impressions led to the practice of blood-let-

ting at certain seasons of the year, and at stated periods of the moon; and it was considered to be a high qualification to

“ Know when she was in fittest mood
For cutting corns, or letting blood.”

Even yet, on St. Stephen's day, it is the custom, in many places, to bleed horses; and an old friend of mine, well known as a valuable contributor to medico-legal science, especially to that which relates to insanity, was removed—and properly so—from his position as a medical officer of Bethlehem Hospital, London, because he continued the ancient custom of bleeding the insane on particular days. These are relics of old notions that had their origin partly in faulty chemistry. They have ceased now with the profession, but adhere with a bond, progressively growing feebler, to some of the unprofessional. A sounder chemistry now sheds its light on our science. To it we must, indeed, look for important aid in enabling us to decypher the scroll of life; and although we may never attain a knowledge of the vital principle itself, chemistry may assist more than any other branch of science in enabling us to comprehend its results. Without it, no one can pretend to be a physiologist; but let me guard you—as my learned friend* will guard you—against being led away by the dogmatical statements of men of name, who may be honest in their endeavours to arrive at truth, yet may not be sufficiently cautious in attaining their conclusions. An important contribution to chemical science has recently emanated from the press. It has been heralded forth as a light to lighten us on many obscure phenomena of the living body; and it is unquestionably an effort, in a most praiseworthy direction, by one who has made valued contributions to chemical science, and especially to organic chemistry. It is my duty, however, as a physiologist, to urge you to study it carefully, and to separate that which is proved, from that which is

* Professor Bache.

plausible. Whatever chemical result is announced on the authority of Liebig is worthy of all attention; whatever is offered by him as a speculation necessarily requires to be confirmed. He himself, indeed, states, that his work "contains a collection of problems, such as chemistry at present requires *to be solved*; and a number of conclusions, drawn according to the rules of that science, from such observations as have been made."

It is to be feared, that the work of Liebig may lead the more enthusiastic of our brethren to the adoption of physiological explanations, and therapeutical practices, which may not stand the test of examination. For the time, chemical physiology is, doubtless, on the ascendant. This result has been favoured by the extensive diffusion of Liebig's work in a form that is within the means of all; and it will not be surprising, if we should see chemical remedies prescribed to supply presumed defects in the elementary constitution of organs whose functions are deranged. The enthusiasm will soon, however, subside, and when the minds of observers have settled down into a state of quiet, the solid enduring results will be duly registered, and form permanent additions to the science of life.

The same kind of revival has taken place in regard to the microscope. When the instrument was first discovered, it was believed to be a means of unravelling the intimate structure, and even the functions of parts that had been veiled in obscurity; and from it, doubtless, arose *Histology*, and *Histogeny*, or the anatomy and physiology of the tissues, which are now cultivated almost as new branches of anatomy and physiology. But the startling statements that were made; the frequency with which the observations of one individual, were contradicted by those of another; and with which the facts were made to correspond with preconceived hypotheses, brought the instrument into disrepute. As an example of this, I may instance the discovery of the spermatic animalcules, which,

for the time, changed the whole views in regard to generation. The animalcule was presumed to be the *mannekin*—the *homunculus*, which worked out its own development, in the ovary first, and in the uterus afterwards; and a celebrated pupil of Leeuenhoek is said to have affirmed, that he not only saw these animalcules under the shape of the tadpole, as they were generally described, but that he could trace one of them bursting through the envelope that contained it, and exhibiting two arms, two legs, a human head, and a heart. Yet we still recur with satisfaction to many of the observations of Malpighi, Leeuenhoek, Hooke, Swammerdamm, Grew, Lieberkühn, Hales, Della Torre, Hewson, Fontana, and others of the earlier prosecutors of minute or microscopic anatomy.

At the present day, the zeal for microscopic observations is carried so far, that microscopic journals, and microscopic societies have been formed; and rich contributions have been made to histology by such men as Henle, Gerber, Wagner, Mandl, Klencke, Gulliver, Barry, Schwann, Schleiden, Wharton Jones, Miescher, Bowman, Valentin, Berres, and a host of other worthies; and my friend Dr. Carpenter informs me, in a recent letter, that he has made some interesting discoveries proving the high organization of the skeletons of the invertebrata, which have been supposed to be unorganized. But, notwithstanding the advantages that must accrue to science from accurate observations made in this or any other manner, evils, I apprehend, may arise from the exclusive spirit in which they are apt to be conducted. In an introductory lecture delivered by me three years ago, and which was published by the members of the class, I used the following language.

‘Yet, gentlemen, although we are amazingly improved in our habits of noting and registering facts, I am not sure if the more modern methods of observing are not calculated, with all their advantages, to be productive of some evil. The school of Louis, to which we owe many excel-

lent monographs on individual diseases, urgently impressing, as it does, upon the tyro, the necessity for the most careful observation of the phenomena presented by disease, is apt to leave the impression, that this is all the practitioner needs, and to convey the too exclusive idea, that self-observation is alone necessary to make the accomplished pathologist and physician;—an ideal rock, on which the profession has struck for ages, and which has greatly retarded the onward course of medical science.

‘All must accord with the disciples of that pains-taking school, that strict and accurate observation is needed to diagnose the precise pathological condition; but all must equally admit, that this diagnosis is only preliminary to the great object of our investigation—Therapeutics, or the mode of treating disease. On this object the concentrated knowledge of anatomy, physiology, pathology, materia medica, and chemistry, must be directed. *Observation* furnishes but the materials for *thought*, and sound Therapeutics requires both. To treat disease understandingly is the end and aim of the profession, which you have embraced, and observation—accumulated observation—forms an essential element, but still an element only.’

I would say the same with regard to the utility of observations made with the microscope as a branch of physiological inquiry; and such are clearly the views of an intelligent English writer, whose remarks have just reached me. “We believe,” he says, “that if the understanding be exercised with an energy proportioned to the industry with which facts are pursued, the present will be a more brilliant period in the history of physiology than ever yet was known; for never were so many engaged in the pursuit, and never was there so much labour bestowed upon it; and already by the few, who combine clearness of thinking, with accuracy of observation, some most striking and important results have been attained. Only when we see an apparatus exalted so much above its due state of subserviency, we cannot help fearing lest much of that

which is being done should be done in vain; and lest that which is gathered in disorder, and often with a heedless curiosity, should end, as it did once before, in mere obscurity."

The phenomena of the nervous system, and the most elevated of those, the mental and moral manifestations, are admitted to be the most complex, and the least known of all. We are not to be astonished, therefore, if the most heteroclite doctrines should have been entertained in regard to them. Of late, some of those views that had long figured on the stage, and sunk, apparently, to rise no more, have experienced a resurrection; and although, in the interval, physical science had been proceeding with rapid strides, and the school-master had been extensively abroad amongst us, they have, in their reproduction, assumed all their original and monstrous deformities.

It was an ancient belief, that certain persons are capable of exerting a mysterious sympathy over others, so as to affect, in the most baneful manner, all their undertakings; holding them, as it were, in a kind of spell and thralldom, and surrounding them with the influences of witchery and magic. Nor has this delusion wholly passed away from us. Amongst the lowest classes, it is still believed, that an individual may be *overlooked* or *tricked*, as it is called; and the corroding impression has existed in such force, that more than one instance has occurred, in which the person, like the Duke D'Olivarez, in *Gil Blas*, has sunk to death, the victim to his own distempered imagination.

There was no end to the varieties which this sympathy assumed. If a person were suddenly taken with a shivering, it was a sign that some one had, just then, walked over the site of his future grave; but probably—as Grose has drily observed—all persons are not subject to this sensation, otherwise the inhabitants of those places whose burial grounds are in exposed situations, would live in a perpetual paroxysm of shaking! When a person's ear or cheek burned, it was a

sign that some one was then talking of him ; if it was the right cheek or ear, the discourse was to his advantage ; if the left, to the contrary. The belief, that the body of a murdered person bleeds from sympathy, when the murderer touches it, prevailed universally, and is not now extinct. Indeed, all these irrational views are in existence, but they do not now possess the higher intellects, as they did formerly. Grafts of flesh, obtained from another's body, were presumed to hold a mysterious community with their former possessor ; and we are gravely told, that in a case where a plastic operation had been performed on a man's arm, and in which the graft was obtained from another's body, it was but necessary for the person to trace letters on the graft, and the original owner of the piece of flesh could be corresponded with, no matter how great might be the distance of the parties from each other. Nay, as my friend and colleague* informed you last evening, when the first owner died, the graft—it was believed—immediately fell off. Such a case has, indeed, been related *as a fact* in modern times ; and as a confirmation of the truth of the general rule of sympathetic association, it was stated, some years ago, that grafted fruit trees in the Island of St. Helena died on the very day on which the original trees, whence the grafts had been obtained, died in England. Were these, indeed, facts, they would deserve to be considered much stranger than fiction.

Many of these conceits probably originated—directly or indirectly—in the discovery of the powers of the mineral magnet. When the first dawn of magnetism broke upon the minds of men with whom physical science was in its infancy, it is not surprising, that the physician should believe it a most potent agent, and that he should adopt it for the cure of many diseases. Accordingly, Crollius—one of the great advocates of the *doctrine of signatures*, to be mentioned hereafter, details the case of a peasant, who, having swallowed a knife, had it drawn through the parietes of the abdomen by a magnetic plaster. Some of the older surgeons—of Ambrose

* Professor Mütter.

Paré's time—in cases of hernia, made the patient swallow a magnet, and placed iron filings on the hernial protrusion to draw it inwards; and Paracelsus and Van Helmont recommended a magnetic plaster to the abdomen, when abortion was threatened, to draw the fœtus upwards. Nor was it astonishing, that enthusiasts, like Paracelsus, should attribute occult and miraculous powers to the magnet of a *moral* kind; and that it should be believed, that every person who carried one about him should attract the love and esteem of his fellow citizens. Paracelsus, the empiric, who—like Robespierre the tyrant, has found apologists and even admirers in modern times, thought, that by its proper use it might arrest disease, and prolong life; and, since his time, it has been greatly connected with numerous delusions. In those dark days, it was generally credited, that all wounds inflicted by metallic bodies could be cured by the magnet; and, gradually, credulity extended so far, that it was deemed sufficient to magnetize the weapon that had inflicted them; hence arose the *weapon salves*, the *armatory unguents* or *hoplochrismata*, as they were learnedly termed, whose entire efficacy, about the middle of the seventeenth century, it was considered the height of hardihood to doubt. Their virtues were lauded in the works of the day; and are referred to by a modern poet.

“ But the broken lance in his bosom stood,
 And it was earthly steel and wood.
 She drew the splinter from the wound,
 And with a charm she stanch'd the blood;
 She bade the gash be cleansed and bound:
 No longer by his couch she stood.
 But she has ta'en the broken lance,
 And wash'd it from the clotted gore,
 And salv'd the splinter o'er and o'er:
 William of Deloraine in trance,
 Whene'er she turn'd it round and round,
 Twisted as if she gall'd his wound;
 Then to her maidens she did say,
 That he should be whole man and sound.

To give you a specimen of one of these ointments, I may cite the following recipe of the times of Paracelsus, premising that it was considered to be adapted for the cure of any wounds inflicted by a sharp weapon, *except* such as had penetrated the heart, the brain, or the arteries. "Take of moss, growing on the head of a thief who has been hanged and left in the air ; of real mummy ; of human blood, still warm,—of each one ounce ; of human suet, two ounces ; of linseed oil, turpentine, and armenian bole, of each two drachms ; mix all well in a mortar, and keep the salve in an oblong narrow urn." With this salve the weapon was anointed, and the wound was tied up, and left undisturbed. It is believed, indeed, that the practice then adopted with the wound, gave the surgeon the earliest idea of healing by the first intention.

At the same time appeared the sympathetic powder of Sir Kenelm Digby, in the virtues of which the bigoted James I. of England was a firm believer, and himself practised with it in several cases ; but it was not esteemed to be always necessary to apply either the weapon salve, or the sympathetic powder, to effect a cure of the wound. It was sufficient to magnetize the sword with the hand, to assuage any pain, that the weapon had occasioned ; and "that which is beyond all admiration, says Reginald Scott, in his '*Discovery of Witchcraft*,' "they can remedie any stranger with that verie sword, wherewith they are wounded ; yea, and that which is beyond all admiration, if they stroke the sword upward with their fingers, the partie shall feel no pain ; whereas, if they draw their fingers downwards, thereupon the partie wounded shall feele intolerable pain."—And this is supposed to have been the first shadowing forth of animal magnetism.

But the power of sympathy was conceived to extend farther than all this. The magical influence of the will of one man over another was credited by such men as Bacon, who lived in the very era of luxuriant superstition ; and the belief has been resuscitated in our own day, to meet, I trust,

with its eternal *quietus*. It has been believed, for example, that when a person is in a magnetic or mesmeric state, it is but necessary for the magnetizer to *will*, that the magnetized person shall execute some act, and immediately it is accomplished ; yet I have seen an individual *will* right earnestly, until he sweated at every pore with the exertion ; but it was calling spirits from the “vasty deep,” that would not come when he did call for them ! The South, and the North, and the East, and the West, have been troubled on this and kindred matters ; and the metropolis of my second home—for such was Virginia to me—has been agitated by exhibitions of mysterious sympathies, in the reality of which grave and reverend signors have implicitly believed. It has been credited, for example, that a magnetized individual could be taken at the will of one with whom he is placed in communion, or *en-rapport*—the technical term—to a distance, and describe scenes and objects, which he had never witnessed, exactly as these scenes and objects really are ; taste, smell, feel, and see objects, that are tasted, smelt, felt, and seen by another ; and in short, that an unbounded sympathy may exist between them, which is as real, as it is inscrutable. To the credit of my medical brethren of Richmond, they have opposed this delusion, and, by a train of experiments, that ought to satisfy any unprejudiced person, have shown that there was no *clairvoyance* ; no sympathy ; and that the whole fabric of infatuation was based upon a few accidental coincidences. Whilst the delusion was there at its height, and the welkin rang with it, it had passed away, or was in the crescent, or wane elsewhere.

I wish I could say, that all the members of our profession had exhibited the same caution and deliberate judgment as the gentlemen in question. One veteran teacher of the West, in a work entitled “*Facts on Mesmerism and thoughts on its causes and uses*,” has thus expressed himself in alluding “to the contest” then in progress, respecting the truth and usefulness of mesmerism.

“I declare,” he remarks, “that contest to be as susceptible

of an immediate, easy, and certain decision, as would be a dispute about the product of the union of sulphuric acid with soda, zinc, or any other substance. Of either question, the solution must be drawn from the result of experiments, alike simple, and easily performed. And in each case *ten* experiments *correctly* performed, and *identical* in their issue, are as conclusive as *ten thousand*. I have myself done, in a single hour, what ought to convince, and, did he witness it, *would* convince any unprejudiced, candid, and intelligent man, of the *entire* truth of mesmerism," &c.

"Never has there been before a discovery, so easily and clearly demonstrable as mesmerism is, so unreasonably and stubbornly doubted, and so contumaciously discredited and opposed,—opposed, I mean, *in words*; for the opposition is but a mass of verbiage; while the defence is a body of substantial facts. Yet never before has there been made, in anthropology, a discovery at once so interesting and sublime; so calculated to exhibit the power and dominion of the human will; its boundless sway over space and spirit." "For one person completely to identify another with himself—sense with sense—sentiment with sentiment—thought with thought—movement with movement—will with will—and I was near saying existence with existence—and to gain over him so entire a control as to be able to transport him, in his whole mind and being, over mountains, seas, and oceans, into distant lands, and disclose to him there the objects and scenes which actually exist, of which he was utterly ignorant before, and becomes alike ignorant again, when restored to his usual condition of existence; and higher and grander still, to waft him at pleasure through space to any or all of the heavenly bodies, of which we have any knowledge, and converse with him about them; such deeds as these may well be called amazing; yet are they as easy, certain, and speedy of performance, as many of the most common transactions of life."—p. xxii.

Yet, gentlemen, by no "verbiage," but by a "body of substantial facts;" by a series of well devised and carefully

conducted experiments, guided by a philosophical mind, anxious only for the discovery of truth, one of my learned colleagues* has prostrated the whole fabric of clairvoyance, and scattered to the elements the fertile creations of the veteran enthusiast. He has shown to the satisfaction of "any unprejudiced, candid, and intelligent man," that there is, in such cases, no identification of sense with sense, of sentiment with sentiment, of thought with thought, of movement with movement, and of will with will. The whole is a delusion, accidental or designed. Still, there is much well worthy of the study of the physician in the phenomena exhibited by one who is thrown into the singular hysteroid condition, that constitutes what is termed the *magnetic or mesmeric* state.

One of the most startling of recent annunciations is the statement, that if one of the compartments of the skull, as mapped out by the phrenologist, be touched whilst a person is in this state, he will immediately have his thoughts turned in the direction of the mental faculty that corresponds with the particular phrenological organ, and exhibit manifestations thereof in his actions and speech. Some of the phenomena, which I witnessed, were certainly most strange; and, at first aspect, were strongly confirmatory of the union between Phrenology and Magnetism, and, therefore, of the truth of both. By the same able investigator, however, this matter has likewise been put at rest. It has been demonstrated, that where the person operated upon has had no previous acquaintance of any kind with phrenology, not the slightest manifestation can be elicited; and that by stating aloud, that the manipulator is about to touch a certain organ, although in reality he touches another, the thoughts and actions may be immediately made to correspond with the organ mentioned—not with the one over which the finger is placed. The researches of my able friend have been read before a learned society, and, for the sake of true

* Professor J. K. Mitchell.

science, I am gratified in being able to state, that they will appear in a form, which will render them accessible to all. I may cite, however, the two following deductions of Professor Mitchell, from the "*Quarterly Summary* of the Transactions of the College of Physicians of Philadelphia, for August, September, and October, 1842," just published.

"As we cannot believe in mesmeric 'rapport,' so we are not able to credit the existence of any peculiar sympathy between the operator and subject. Untrained or ignorant patients never shew sympathetic phenomena. I have been pinched, and hurt otherwise, a great many times, without observing any suffering on the part of my subjects, until they were taught to believe that such a relation existed; and then they very honestly felt hurt, as people do in dreams—a kind of imaginary suffering.

"The phrenological phenomena of mesmerism, when rigidly examined, are found to consist, as do most of the mesmeric wonders, of 'such stuff as dreams are made of.' The *excitement* of the brain is *general*, the *direction* of that excitement is *given by the mesmerised person's knowledge of phrenology*; but the patient is not in any case aware of his mental co-operation. This singular delusion or misapprehension runs through nearly the entire subject of mesmerism; most of the phenomena of which are a strange mixture of physical impulse and mental hallucination. Phrenologists alone feel the phreno-mesmeric excitement. Persons partially acquainted with phrenology experience it only as to the organs known to them; while those who are totally ignorant of the subject present no local manifestations, until they are taught, either awake or asleep, what they should know, and what they should do. The displacement of old organs, in one city, their retention of location in another, and the adherence of the patients to the peculiar and dissimilar systems of phrenology, which they have, respectively, been taught, shew clearly, that the direction of the cerebral excitement is personal and arbitrary; while the new maps of the cranium, so widely different

from each other, leave us no longer in the least doubt as to the delusive source of the compound science of phrenomesmerism.”

Phrenology is a branch of physiology, and therefore forms part of my course of lectures. It is an exemplification of the fact, that we are anxious to seize hold of everything that seems to be demonstrative in regard to the intimate investigation of the functions of the human brain. Psychology is mental philosophy, and whatever knowledge we attain by its means must be by a laborious process of reasoning, of which all are by no means capable. It was, therefore, exhibiting an easy road to the mental organization of man, when it was pronounced, that his brain consists of a series of organs, each of which has for its function a particular intellectual or moral act. A few coincidences—as in the case of mesmerism—were quite sufficient to satisfy those, who are readily convinced, of its truth. Moreover, it had antiquity in its favour. In its rudimental state, it was supported by Aristotle. It was resuscitated in the middle ages, was shadowed out by Swedenborg, and assumed a new and more imposing form under Gall and his disciples. It afforded a geographical chart of the head, on which the inquirer into his own mental tendencies had but to look, and to compare it with that of others, in order to arrive at—he conceived—satisfactory information. It exhibited somewhat of the character of an exact science applied to a study universally considered to be unfixed, mazy and difficult.

Yet, successive years have not tended to confirm the doctrine. The minds of some of the best physiologists are more chary in embracing it. Müller thinks Magendie right in placing cranioscopy in the same category with astrology and alchemy: Leuret and Carpenter affirm, that comparative anatomy and psychology are very far from supporting it, when their evidence is fairly weighed; and Flourens, the perpetual secretary to the French Academy of Sciences,

has very recently opposed it vigorously in the *Journal des Savans*, on anatomical, physiological, and psychological considerations; and I must admit—as I have already publicly admitted—that year after year's observation and reflection render me less and less disposed to consider even the fundamental points of the doctrine to be founded on a just appreciation of the encephalic functions.

But even were we to concede, that the fundamental principles are accurate, we might hesitate in adopting the details; and, still more, in giving any weight to it as a practical science. Gall, Spurzheim, and Combe would rarely venture to pronounce on the psychological aptitudes of individuals from an examination of their skulls. The first of these—and the founder of the doctrine, in its present shape—when he attempted to form a judgment, was not satisfied with examining the head alone. “In society,” says he, “I make use of many expedients to become acquainted with the talents and the inclinations of persons. I engage them in conversation on various subjects;”—and he adds, “to judge of the character of a person, make him talk of his childhood, and his early youth; make him relate his freaks at school; his conduct towards his relations, brothers, sisters, companions, the emulation which he felt;” and by these and other modes of examination, which he describes, “the whole man,”—he says,—“becomes developed before me.”

Yet craniology ministers so much to the self-satisfaction of children of larger growth, when the oracle, after an examination of their “developements”—the technical term—announces that they possess faculties, which they, perhaps, dreamt not of, and the fancied possession of which elevates them in their own conceit;—and, like astrology, and the more humble fortune-telling, affords so much gratification to parents, in foretelling prospects of distinction for their children, when announced by a dexterous and wily operator, that father and child run together to learn their

destinies ; pay the fee, and receive a chart, to be but a sorry guide to them, however, on the voyage of life. This indiscriminate divination from the mensuration of heads, has been a sad detriment to phrenology, as a branch of physiological science. Its prevalence has indeed been grievously deplored by all enlightened phrenologists. “Highly as we estimate the discovery of Gall,”—says, very recently, one of the ablest of phrenologists—“immense as we regard the advantages which may be ultimately derived from phrenology, we confess, that we wish to see it *less* regarded, studied, and pursued as a separate science, and *more* as a branch of general physiology ;” and he adds, “In reviewing the circumstances, which have tended to lower phrenology in the estimation of scientific men, and, consequently, to retard both its progress as a science, and the general recognition of its leading truths, we should but very imperfectly perform our task, if we did not refer, in the strongest possible terms of reproof and condemnation, to the too prevalent proceeding of examining living heads in minute detail and indiscriminately, and supplying the owners with an account of the ‘development,’ often on the receipt of a fee, varying in amount, as there is furnished or omitted a general deduction as to the character and probable conduct of the individual, with or without the ‘philosophy,’ according to the phraseology of practitioners of this art. We unhesitatingly maintain, that the science is not sufficiently advanced to supply evidence of its truth from every head, or from any one head, and consequently, that such practice, as a general one, is so much pure charlatanism. Where any strongly marked peculiarity of individual character exists, its outward sign, in appropriate subjects, will certainly be detected ; but, from the very nature of the thing, these cases must constitute, not the rule, but the exception. The practice we condemn, however, makes no distinction of instances. Injudicious zeal, the common ally of ignorance, a wish for effect, not unfrequently more sordid motives, stimulate the

self-styled phrenologist in this empirical career; and, as a matter of course, the errors and mistakes perpetually made are constantly appealed to as indicative of the sandy foundations of the entire phrenological edifice. We write advisedly in this our unqualified reprobation of the popular custom of 'taking developements.' We believe it to be an extension of the practical application of phrenology much beyond its legitimate bounds; and we appeal to any one having acquaintance with its results, whether any thing like uniformity—the true test of accuracy—is obtained in the majority of cases, even when the most experienced and dexterous pronounce their judgment, if their explorations be conducted separately. We ourselves have even witnessed the greatest possible discrepancies. Nay, we have seen the *same* phrenologist furnish one character from the head, and a totally different one from the cast, whilst in ignorance of the original of this latter. This we have known to happen, not merely in the practice of one of your shilling-a-head itinerants, but in that of one not unknown to fame in the annals of the science."

Such, are the views of a distinguished writer, who, unlike myself, expects much from phrenology, and has done much to give it countenance. Yet men will still form their judgments in this manner; and a solitary coincidence, as in all similar cases, will outweigh a dozen failures. How constantly are we not deceived as to individuals, even when we combine a judgment not alone of their cranial, but of their facial, conformation; or, in other words, associate phrenology or craniology, with physiognomy!

When the poet and profound psychologist, Coleridge, was at one of the English watering places, he found himself seated at the dinner table opposite to a man of most prepossessing appearance; with a countenance that would have been a study for Lavater, and a head for Gall and Spurzheim. The stranger maintained a profound silence during the repast, and Coleridge had ample time to indulge in various imaginings as to his probable position and character; that he was a man of

high intellect and great polish, could scarcely be doubted ; but all this beautiful imagery was dispelled as the waiter brought in some apple-dumplings; when the great unknown clasped his hands and exclaimed, his countenance beaming with sensual gratification:—"them's the jockey's for me;"—and thus ended the delusion.

Were the phantasies, to which I have referred, confined to simple speculation, the evils resulting from them would be endurable. Mankind must be entertained. It would appear, indeed, as if they must be deceived ; and hence it becomes necessary, ever and anon, that a new tub should be thrown out to amuse the whale. Unfortunately, however, in the superstition and credulity that even yet exist in this enlightened age, it is believed, that a man may be born a physician, and that ignorant or designing individuals,—in or out of the ranks of the profession,—may possess a gift, which enables them to dispense with study, to discard all knowledge of the human body, to see intuitively into the very nature of disease, and to suggest a proper remedy.

In the year 1840, 36,000 persons petitioned the legislature of New York for a change of the law towards certain practitioners in medicine, known as Thomsonians,—grossly ignorant men, one of whose leading principles is, that the human body is composed of four *elements*, which elements are, earth, air, fire and water ; and one of their apothegms,—I cite the words of Thomson, the son,—“that the metals and minerals are in the earth, and being extracted from the depths of the earth have a tendency to carry all down into the earth ; or, in other words, the grave, who use them. That the tendency of all vegetables is to spring up from the earth. Their tendency is upwards ; their tendency is to invigorate and fructify, and uphold mankind from the grave.” Well might the framer of the minority-report, an intelligent lawyer, be led to remark,—in language too sarcastic, perhaps : “This is a world of humbugs ; and with all our keensightedness, adroitness, skill and ingenuity, in all we under-

take, we are, perhaps, the most easily humbugged nation in the world; and in nothing is this alacrity to be deceived more fully manifested, than in the eternal, never-ending, still-beginning, doctoring-still, and still-destroying patent medicines. Perhaps one-fourth of the advertising patronage of a country newspaper consists in puffing patent medicines, and this great tariff is levied on credulity afflicted with disease. If there were truth in the advertisements of a single paper, attested by the learned, the wise, and the pious, there is not a disease, to which poor humanity is heir, but what is susceptible of speedy relief and ultimate cure."

The Thomsonian or Botanic Physician has found in this city his proper level; but we are told,—by an interested witness, it is true,—that three millions of people in the United States were prepared to swear in the words of Thomson, the master.

If, however, Thomsonianism has waned in this parallel, its place has been taken by another offset from the tree of credulity; whose absurdities are only greater because they are less. Ages ago, the credulous practitioners of the period had the most fantastic notions in regard to the adaptation of particular remedies for particular maladies; and they maintained, that where such special adaptation existed, it would be shown by some indication or *signature* as it was termed; and hence arose the "*Doctrine of Signatures*" in Medicine. Saffron and Turmeric were of a yellow colour: therefore, they were good in Jaundice; *Euphrasia* or Eyebright had the appearance of the pupil of the eye, on its flower, and was, therefore, adapted for diseases of the eye; *Hepatica* resembled the liver, and was calculated to cure diseases of that viscus. The Walnut bore some similitude, at its periphery, to the convolutions of the brain, and was consequently a good cephalic. Endless, indeed, are the examples, that might be adduced to show the application of this doctrine—*similia similibus curantur*; but in our times the application of the remark

has been changed; and the people are now ready to believe—and many of them do believe—that there are remedies, which are capable of inducing a morbid action similar in kind to one that may be going on in the organism; and that these two similar bodies—as in electricity—have a repugnance for each other. An additional branch of this doctrine seems to be, that a part is greater than the whole; and that medicines—to be effective—should be administered in excessively minute quantities; the decillionth ~~or tenmil-~~
~~lionth~~ of a grain of charcoal being an authorized dose.

I have not gone into any calculation on this subject, for I consider it unworthy of the trouble, or, indeed, of serious examination, but a recent writer has, who expresses himself as follows:—"The leading homœopathists of this city (New York) speak of the decided effects of the *decillionth* dilution; and the lowest homœopathic dilution to be obtained here, of medicines prepared in Germany, is the *third*, which is very nearly in the proportion of one drop of the tincture to one barrel of alcohol, or one grain of the extract to 4 cwt. of sugar;" the eighth dilution gives one drop of the tincture to one hundred millions of barrels; "so that by the time we reach the 30th, it would form a mass of alcohol larger than the whole solar system! A drop of the tincture, diffused through the waters of the Atlantic, would form a stronger solution than the 8th; and the same throughout all the waters of the globe, would be more concentrated than the 9th. If we take sugar instead of alcohol, the 3d degree of 'potence' would require more pounds than a man could carry, and the 4th degree would freight a north river sloop; the 5th, a 74 gun ship; and the 6th, our whole navy."

This calculation may be disputable, and disputed; but if we subject it to a large deduction, it will remain sufficiently startling; and cause us not to be astonished at the assertion of Jahr, a homœopathic writer, that the *decillionth* of a grain of flint or charcoal or cuttlefish juice is of equal efficacy with the same dose of arsenic or strychnia!

When the dramatist wrote the homœopathic sentiment—

“My grief is great because it is so small;”

the reply of the wag, in the pit, was, I apprehend, equally homœopathic—

“Then ’twould be greater, were it none at all.”

Yet, to set all our philosophy still farther at defiance, we are told by the founder of the doctrine—Hahnemann—that homœopathic medicines acquire, at each division or dilution, a new degree of power, by the rubbing or shaking to which they are subjected; and this discovery Hahnemann claims to be his own. “It is a means”—I quote his own words—“of developing the inherent virtues of homœopathic medicines, that was unknown till my time; and which is so energetic, that latterly I have been forced, *by experience*, to reduce the number of shakes to *two*, of which I formerly prescribed *ten* to each dilution”! It is awful to reflect upon the possible consequences to a patient, who might have a ten millionth part of a grain of flint or charcoal sent to his country residence, and shaken even more than ten or one hundred times in its passage over our rough roads. The catastrophe could scarcely fail to equal that, celebrated by Coleman in his “Newcastle Apothecary,” where, by mistake, the direction—“*when taken to be well shaken*,” was interpreted to apply to the patient instead of to the medicine!

Yet, gentlemen, the more solemn part remains. We find the possessors of these views, which seem to us so irrational, patronized not only by the long-suffering, capricious, and confiding female, but by men, who, in the pursuit of their own honest daily avocations, exhibit no lack of good sense; and by others, who, from their opportunities and position, ought to be expected to reject unhesitatingly such marvellous insignificancies; and who, on other subjects, exert a

judicious scepticism, and a just appreciation of ordinary events.

It is entirely consistent with the manifestations of the human mind, that excessive credulity and excessive scepticism should exist at the same time in the same person; and that one, who is a declared infidel on many topics that are admitted by the wisest and the best, may yet cherish the marvellous and the monstrous. The ancient but opposite anecdote of the flying-fish is, doubtless, known to many of you; but it will bear repetition, and has been presented again, of late, by a popular writer on a congenerous subject. "Well, son John," said the old woman, "and what wonderful things did you meet with all the time you were at sea?" "Oh! mother," replied John, "I saw many strange things." "Tell us all about them," replied his mother, "for I long to hear your adventures." "Well, then," said John,— "as we were sailing over the Line, what do you think we saw?" "I can't imagine;" replied his mother. "Well, we saw a fish rise out of the sea, and fly over our ship!" "Oh, John, John! what a liar you are!" said his mother, shaking her head, and smiling incredulously. "True as death!" said John; "and we saw still more wonderful things than that." "Let us hear them," said his mother, shaking her head again; "and tell the truth, John, if you can." "Believe it or believe it not, as you please," replied her son; "but as we were sailing up the Red Sea, our Captain thought he should like some fish for dinner, so he told us to throw our nets and catch some." "Well?" inquired his mother, seeing that he paused in his story. "Well," rejoined her son, we *did* throw them, and, at the very first haul, we brought up a chariot-wheel, made all of gold, and inlaid with diamonds!" "Lord bless us!" said his mother; "and what did the Captain say?" "Why, he said it was one of the wheels of Pharaoh's chariot, that had lain in the Red Sea ever since that wicked king was drowned, with all his host, whilst pursuing the Israelites." "Well, well!" said his mother, lifting up her hands in ad-

miration, "now that's very possible, and I think the Captain was a very sensible man. Tell me such stories as *that*, and I'll believe you; but never talk to me of such things as flying-fish! No, no, John! such stories won't go down with me, I can assure you!"

How often do we not meet with the counterparts of the sailor's mother, in our journeyings through life. The writer referred to affirms, indeed, that the great majority of mankind, and even of the wisest among us, are still in her condition—"believing and disbelieving on the same grounds that she did—protesting against the flying-fish, but cherishing the golden wheels;" straining at the gnat, and yet ready to swallow the camel. The zealous sectarian may be intolerant in regard to the beliefs or disbeliefs of his fellow christian; nay, in his doubts, he may attempt to account for recorded miracles on physical principles; and yet, sceptic as he is on those points, he may embrace without hesitation, and urge upon others, all the dogmas of Homœopathy and Animal Magnetism, with the absurd extensions that have been given to them by the wildest of enthusiasts. "How,"—says one of these whose faith and credulity exceed his judgment,—“how can I shut my eyes to facts? I have *seen—observed*—with my own eyes, and I *must* believe.” Yet he sees the wonderful performances of the juggler,—performances which are far more astonishing than any to which I have referred, *sees—observes* equally with his own eyes, and *does not* believe; and only because he was prepared to witness a deception.

Every age, gentlemen, has its follies. I have endeavoured to depict some of those that belong to the past, and to our own; and whose decadency we shall witness in no short time, to give place, alas! to others. In the case of homœopathy the revolution has already begun. Hydropathy is supplanting it in Germany, the place of its nativity. In the Homœopathic Hospital at Leipzig, the head quarters of

the doctrine, a recent medical traveller found only eight beds; and of these, all but two or three were unoccupied; whilst the village of Gräfenberg was absolutely crowded with those who were undergoing the *Wassercur*, or “water treatment” of Priessnitz, “an unlettered and uneducated hind” of the Silesian mountains, who has induced some seven or eight thousand invalids, in the course of the last ten years, to submit themselves for weeks and months to his treatment. Regarding this, there is a growing enthusiasm; and a recent writer—a patient—in his zeal, informs us, that sleeping in wet sheets is by no means the disagreeable thing it is usually conceived to be. The first step may be so; but the subsequent sensations are said to be indescribably delightful.

There were—we are told—under Priessnitz’s care, in 1841, an archduchess, ten princes and princesses, *at least* one hundred counts and barons, military men of all grades, several medical men, professors, advocates, &c., in all about five hundred! “And besides this high patronage,” adds the same writer, “Priessnitz has accumulated solid pudding to the amount of £50,000; not from the accumulation of guinea fees, or journeys at a guinea a mile, or occasional cheques of £1000 in nightcaps thrown at the surgeon’s head, but from fees ranging from the minimum of four shillings a week to the maximum of double that small sum, and from the profit arising from his great boarding house, where his patients are fed for eight shillings a week, and lodged for four shillings more.”

But the reported success of the *Wassercur* is not yet so astounding as that of St. John Long, or of the metallic tractors of Perkins. Amongst those, in England, who furnished vouchers for the value of the tractors as therapeutical agents, with their names affixed to their communications, were eight professors in four different universities, twenty-one regular physicians, nineteen surgeons, thirty clergymen, twelve of whom were doctors of divinity, and numerous other characters of equal respectability; and it was estimated by the London Per-

kinistic committee, that the number of cures, which had been effected by the tractors up to the period of their report, exceeded *one million five hundred thousand!* And where, it will be asked, is the Perkinistic Institution, where Perkinism itself, now? and Echo answers,—Where? They are both remembered only as the delusions of a by-gone period.

So goes the world. The Rocks and the Brodums, the Solomons and the Eadys, Perkinism and Thomsonianism, Brandy and Salt, Homœopathy and Hydropathy,

“In turns appear, to make the vulgar stare,
Till the swoln bubble bursts—and all is air.”

Happily, one only of those delusions—Thomsonianism—is indigenous with us. The rest are imported. “Why!” says one of the most distinguished of Irish medical philosophers, in a letter to me, “why do you not send us something in return for the infictions of phrenology, mesmerism, homœopathy, &c., which we put upon you?” Yet, Great Britain herself has but adopted these. She derived them, with most of her nursery literature, her Jack and the Bean Stalk, her Jack the Giant Killer, her Tom Thumb, and many of her popular superstitions, from intellectual but imaginative and mystic Germany. Phrenology and mesmerism, homœopathy and hydropathy, are all German; and undoubtedly, in the minds of most, they are more regarded when administered by a German. Yet, have they not generally met with honour in their own country;—assuredly with far less than elsewhere.

First of all, these moral epidemics fade in their primitive seat. Like many well known pestilences, they cross the western main, rage for a while, and ultimately sink beneath the western horizon; to rise again, however, in the east, in the revolution of ages, but under some new phases, and to follow the same path.

Thus has it likewise been with many popular delusions. Alchemy and the witch mania of former ages are in the

“deep bosom of the ocean buried ;” but fortune-telling and astrology yet exist among us.

“ And men still grope t’ anticipate
The cabinet designs of fate ;
Apply to wizards to foresee
What shall and what shall never be.”

The Mississippi scheme, the South Sea bubble, and the Tulipomania, were the delusions of former periods ; but the nineteenth century has been prolific in similar bubbles, and can offer its wild commercial and land speculations ; its morus multicaulis mania, and its joint stock companies. The same causes are at the root of all popular delusions. They spring from the credulity of man ; his love of the marvellous ; his unbounded enthusiasm in the prosecution of whatever may hold out prospects for improving his position, and for ministering to his health and comfort. It is idle, then, to attempt to enact laws against empirical remedies or practices only. To do good, they should be directed against all forms of empiricism and delusion ; but even then they must fail. The evil is in the natural constitution of the human mind, and does not admit of eradication. The only feasible course is to educate the people ; to instruct them in the operations of the human body ; to introduce the study of physiology into the common schools ; and to steel the youthful mind, as far as practicable, against the arts of the unprincipled and the ignorant.

As for the course of the physician, it is clear. To avoid even the semblance of persecuting any body of men—however insignificant or unworthy—so as to excite undue sympathy for them. All sects, and the followers of all systems, are glad to raise the cry of persecution ; and the people are prepared to believe, that instead of the opposition of the profession being honest and upright, it originates in interested and sordid motives. The observing and reflecting physician can derive information from every sect, and from every form that empiricism assumes, or has assumed.

Thomsonianism, homœopathy, and hydropathy have all added to the stock of useful knowledge; and physiology and psychology have been large gainers from phrenology and animal magnetism. Although, therefore, the philanthropist may deplore the pernicious effects of popular delusions on the masses, one consolation remains to him, that science, at least, progresses, and that the cause of truth is ever onward.

“Let us not, then,”—to conclude, in the language of a very recent writer,—“in the pride of our superior knowledge, turn with contempt from the follies of our predecessors. The study of the errors into which great minds have fallen in the pursuit of truth can never be uninstrucive. As the man looks back to the days of his childhood and his youth, and recalls to his mind the strange notions and false opinions that swayed his actions at that time, that he may wonder at them, so should society, for its edification, look back to the opinions which governed the ages fled. He is but a superficial thinker who would despise and refuse to hear of them merely because they are absurd. No man is so wise but that he may learn some wisdom from his past errors, either of thought or action; and no society has made such advances as to be capable of no improvement from the retrospect of its past folly and credulity. And not only is such a study instructive: he who reads for amusement only will find no chapter in the annals of the human mind more amusing than this. It opens out the whole realm of fiction—the wild, the fantastic, and the wonderful, and all the immense variety of things ‘that are not, and cannot be; but that have been imagined and believed.’ ”